The impact of the Motor Industry Development Programme (MIDP) on the export strategies of the South African light motor vehicle manufacturers (1995–2008)

by

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Summary

Role-players in the South African automotive industry have responded positively to the Motor Industry Development Programme (MIDP) policy regime. Since 1995, South African light motor vehicle manufacturers (original equipment manufacturers – OEMs) have become fully integrated into the global networks of their foreign parent companies. As South Africa's leading manufacturing sector, the increasing importance of the automotive sector is reflected in its exports, investments and contribution to the country's gross domestic product.

The objective of this study was to analyse the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008). The main findings of the research are that, since 1995, the MIDP has been the primary factor impacting on the export strategies of South African OEMs. Without the programme, the industry would not have been able to cope with global competition. It is important to note that without the MIDP there would have been no significant growth in exports from South Africa.

The research found that the country's trade arrangements with the EU and the USA have enhanced the impact of the MIDP. It was also found that, given South Africa's distance to foreign markets, the most important constraint when accessing these markets is the cost of logistics. In addition, the most important determinant of foreign-market pricing when setting the export price, aligned with the influence of the OEM parent companies, is costs relating to manufacturing, transportation and marketing. The role played by the MIDP in sourcing decisions is the most important factor that has contributed to an increase in light vehicle exports. Furthermore, the perceived level of influence when determining new export destinations would seem to be higher for the US-based and the Japanese-based OEMs than the European-based OEMs.

The new Automotive Production Development Programme (APDP) (to be introduced in 2013), which aims to double vehicle production to 1,2 million units by 2020, will reflect a quantum leap in terms of processes, technologies and the scale on which the domestic industry currently operates. In order for the South African automotive

industry to achieve both its and government's objectives it will require priority attention.

Key terms: automotive policy, currency movements, exchange rate, export growth, export strategies, international competitiveness, international marketing, logistics costs, light vehicles, Motor Industry Development Programme (MIDP) 1995–2008.

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ABBREVIATIONS

AGOA	African Growth and Opportunity Act
AIDC	Automotive Industry Development Centre
CBU	Completely built-up unit (vehicle)
CKD	Completely knocked down
CPI	Consumer price index
DFA	Duty-free allowance
DTI	The Department of Trade and Industry South Africa
EU	European Union
FDI	Foreign direct investment
FOB	Free on board
GATT	General Agreement on Tariffs and Trade
GDP	Gross domestic product
ITAC	International Trade Administration Commission
IRCC	Import Rebate Credit Certificate
LCV	Light commercial vehicle
LV	Light vehicle (passenger and light commercial vehicle)
MCV/HCV	Medium and heavy commercial vehicle
MERCOSUR	Mercado Común del Sur (Common Market of South America)
MIDC	Motor Industry Development Council
MIDP	Motor Industry Development Programme
NAACAM	National Association of Automotive Component and Allied Manufacturers
NAAMSA	National Association of Automobile Manufacturers of South Africa
NAFTA	North American Free Trade Area
OEM	Original equipment manufacturer (motor vehicle manufacturer)
PAA	Productive asset allowance
PPI	Production price index
R&D	Research and development
R	South African rand
SA	South Africa
SADC	Southern Africa Development Community
SATMC	South African Tyre Manufacturers' Conference
SME	Small and medium enterprise
UNIDO	United Nations Industrial Development Organisation
USA	United States of America
WTO	World Trade Organization

CHAPTER 1: INTRODUCTION AND PURPOSE OF THE STUDY

1.1 INTRODUCTION

In a masters degree dissertation (Lamprecht, 2006a), the researcher illustrated the cause–effect relationship between developmental automotive policy and the production and market structure that applied to the South African automotive industry: market structure dictated policy and vice versa. The overall regulatory regime in South Africa is, hence, very important in determining the actions of automotive firms. Before 1995, high tariffs were placed on completely built-up units (CBUs). These high tariffs, when combined with a growing market, acted as a magnet to a large number of initially foreign-owned motor vehicle manufacturers, which established assembly plants in the domestic market. These operations, although in many cases highly profitable, were very small in international terms with correspondingly high unit costs. Vehicle production was aimed solely at the domestic market and South African assembly plants were kept isolated from the global production networks of the parent companies, except as a means of obtaining the completely knocked down (CKD) component packs used to assemble the vehicles.

Since 1994, following the country's economic and political liberalisation, South Africa has had to abide by new business rules. In this context of rapid trade liberalisation and major shifts in government policy, the Motor Industry Development Programme (MIDP) was implemented. Against this backdrop, the government eliminated its major demand-side support for industry, such as tariff and import control protective measures, and shifted towards a variety of supply-side measures. These were aimed at assisting the manufacturing sector to become more internationally competitive by helping firms to cope with imports and allowing them to export. The MIDP was initiated in recognition of the problems besetting the domestic automotive industry in the new dispensation. These problems were related to the high cost structure and low volume production that resulted from various local content programmes that had protected the domestic automotive industry for over three decades (Barnes & Morris, 1999:3).

A study conducted by the Industrial Development Corporation (1993) relating to the competitiveness of the South African automotive industry revealed that, in 1992, South African passenger cars were at a cost disadvantage of up to 72% compared to

Germany, Japan, the USA, the UK and Australia. Prior to 1995 the number of passenger car and light commercial vehicle base models produced by the domestic industry was 42 compared to 18 in 2008. In 1995, the average volumes per model when the MIDP commenced was 11 500 units compared to the 29 282 units in 2008 (NAAMSA, 2009a).

The MIDP is a sector-specific part of government's new industrial policy and was established to entrench the outward orientation of the domestic automotive industry, thereby restructuring it to achieve improved international competitiveness. At the same time the programme was intended for the industry to maintain its employment and output contribution to the South African economy. According to Barnes and Morris (1999:3) the objectives of the MIDP were deemed non-mutually exclusive as it was argued that they could be achieved through a phased integration of the South African automotive industry into the global automotive environment. The MIDP was the only viable choice within policy to pursue, as was agreed by all industry stakeholders at the time (Lamprecht, 2006b:8).

Since the implementation of the MIDP in September 1995, the South African automotive sector has grown in stature to become the leading manufacturing sector in the country's economy. In 2008 the sector's contribution to the country's gross domestic product (GDP) of R2 283 billion amounted to 7,29% (NAAMSA, 2009a:49). Total automotive exports (CBUs and automotive components) have grown from limited exports before 1995 to achieve record-breaking levels for several consecutive years thereafter. During 2008, the South African automotive industry exported a record 284 211 right- and left-hand-drive passenger cars and commercial vehicles to 79 countries around the world. Vehicle exports doubled from 1999 to 2002 and again from 2005 to 2008. A total of 1 446 515 South African manufactured vehicles have been exported between 1995 and 2008. The export growth of CBUs amounted to nearly 1 700% in unit terms and 3 066% in nominal value terms between 1995 and 2008. The export growth has been accommodated by major investments in best practice assets and state-of-the-art equipment, skills upgrading, productivity gains and upgrading of the whole automotive value chain (AIEC, 2007:54, 55; NAAMSA, 2009b).

The South African light vehicle manufacturers or original equipment manufacturers (OEMs) have responded positively to the automotive policy regime in the form of the MIDP over the past thirteen years. The aim of this study is thus to analyse the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008).

1.2 THEORETICAL FRAMEWORK

A multitude of national and international articles and reports published on the MIDP and the achievements in terms of the programme's objectives have been studied. These articles and reports serve as a useful reference for obtaining the collective and individual opinions and views of key industry stakeholders and experts. In addition, various reports by the Department of Trade and Industry (DTI), the International Trade Administration Commission (ITAC) and industry associations, as well as relevant published and unpublished reports and data, have been studied. In terms of the global automotive environment, various global reports, studies, presentations and websites have also been studied in order to gain an insight into the global trends, strategies and approaches of the key automotive industry role-players.

The researcher has been instrumental in implementing systems to capture information on the progress of the MIDP since its introduction in 1995. In previous positions at the Department of Trade and Industry (DTI) between 1995 and 2005 his responsibilities as head of the Automotive Monitoring Division included obtaining automotive industry information by way of three annual surveys. These surveys were targeted at the South African-based OEMs, the medium and heavy commercial vehicle manufacturers and a selected sample of automotive component manufacturers. The capturing of the survey data, via the surveys, started in 1996 and has continued up to 2009. He also provided and continuously updated the functional specifications for a computer program designed to manipulate Customs and Excise statistics to provide relevant automotive trade data. The trade data cover the automotive components and vehicles, countries and regions with regard to all the relevant automotive products eligible under the MIDP. In this regard, he established the DTI as the official source of relevant trade data from 1995 to 2004. He was also the author of eight editions of *Current developments in the automotive industry*, an annual publication of the DTI incorporating relevant survey and trade data. Between 2002 and 2005 he was

chairperson of the Monitoring Committee of the Motor Industry Development Council (MIDC), the aim of which is to monitor the progress of the MIDP.

Since 2005, in his position as Executive Manager at the National Association of Automobile Manufacturers of South Africa (NAAMSA) as well as executive board member of the Automotive Industry Export Council (AIEC), he has established the AIEC as the key source of relevant automotive trade data. In this regard, he has produced the *Automotive export manual – 2007*, *Made in South Africa: Automotive Export Manual – 2008* and *Automotive trade data – 2009* publications on behalf of the AIEC. The manuals provide a detailed analysis of the export performance of the South African automotive industry from 1995 to 2008. The aim of the manuals is to identify and prioritise 1) the domestic industry's major automotive export destinations, of which there were 135 in 2008; 2) the main automotive trade blocs; 3) the main automotive component categories; 4) the top growth markets and products; and 5) the impact of the various relevant trade arrangements and general systems of preference relating to the domestic automotive industry.

Other current responsibilities assisting the researcher in this study include his appointment, on behalf of NAAMSA, on the International Trade Administration Commission (ITAC) Technical Working Group to determine the eligibility of products under the MIDP. He is also the chairperson of the NAAMSA Vehicle Crime Committee focusing on, among other things, illegal vehicle imports eroding the protection afforded to the domestic industry. He is a Director on the Sector Education Development Agency Automotive Technology Centre (SATEC) Board focusing on automotive technology transfer and small enterprise incubation programmes. He also represents organised business via Business Unity South Africa (BUSA) on the National Economic Development Labour Council (Nedlac). He serves on the Technical Sectoral Liaison Subcommittee (Teselico) and the Non-Agricultural Market Access (NAMA) Task Team.

The theoretical foundations for the research in respect of international marketing and competitive strategies is based on the work of Burns and Burns (2008), Cooper and Schindler (2008), Aaker (2007), Burgess and Bothma (2007), Czinkota and Ronkainen (2007), Hill (2007), Gillespie, Jeannet and Hennessey (2004), Strydom (2004) as well

as Terpstra and Sarathy (2000 – last edition). Supplemented by updated comments, Porter's notion of the competitive advantage of nations (CAN) in achieving a sustainable competitive advantage in the global environment is also analysed.

According to these authors, marketing, by its very nature, is concerned with the interaction between the firm and the marketplace. The American Marketing Association defines marketing as an organisational function and a set of processes for creating, communicating, and delivering value to customers, and for managing customer relationships in ways that benefit the organisation and its stakeholders. International marketing is the process of planning and conducting transactions across national borders to create exchanges that satisfy the objectives of individuals and organisations. Strategies have to be developed that are both efficient and effective, as the marketplace varies and is becoming increasingly competitive.

The scope of the literature research covers the broad spectrum of the automotive supply chain, which will be discussed in chapter 3. Automotive manufacturing in the supply chain focuses on passenger cars, light, medium and heavy commercial vehicles and buses as well as original equipment components and aftermarket or replacement parts for these vehicles. A supply chain consists of all the firms that participate in providing a product or service to the final consumer. The term "supply chain" is used to describe the links in the chain of production of a product or service. The supply chain generally involves backward linkages (upstream) in the supply of inputs from the lower-tier suppliers to the first-tier suppliers to the OEM. The OEMs are thus the key drivers of the automotive supply chain.

These chain linkages are not only important upstream but also downstream. Downstream linkages entail beneficiating or adding value to the inputs in order to transform them into the end product. For the automotive industry the end product translates into the completely built-up vehicle (CBU). Supply chains for international products are complex, dynamic systems. When supply chains are inefficient, every member may experience unexpected costs arising from demand-related disruptions such as high inventories and lower demand fulfilment costs (Humphrey & Memedovic, 2003:21, 22; Burgess & Bothma, 2007: 32, 33).

In the context of the global automotive industry, the global automotive supply chain is dominated by a relatively small number of OEMs. In 2008 the top 10 OEMs were Toyota, General Motors, Volkswagen, Ford, Honda, Nissan, PSA Peugeot-Citroen, Hyundai, Suzuki and Fiat. The top 10 OEMs accounted for 68,9% of total global vehicle production representing in the order of 47,9 million units in 2008 (NAAMSA, 2009a:52; OICA, 2009). The OEMs are supplied by first tier or mega-suppliers globally, which are responsible for components or systems assembled from different components and subcomponents. The lower tier suppliers are mainly restricted to their domestic markets and are responsible for supplying subcomponents to the first tier suppliers.

The description of the supply chain thus provides an understanding of how the sourcing and outsourcing decisions of the parent OEMs (head office plants) impact on the operations of their OEM subsidiaries and hence their suppliers around the world. All the major OEMs in the world are represented in South Africa, either as manufacturers or importers. A large number of multinational suppliers or foreign-owned first-tier suppliers operate in cooperation with South African suppliers, mainly the second and third-tier suppliers; cooperative arrangements include joint ventures and licence or technology agreements. According to the International Vehicle Manufacturers Association (OICA, 2009) the top 10 global OEMs have increased their number of vehicle manufacturing plants in developing countries from 34 in the early 1990s to 80 in 2007. As a result of increased competition, the main focus of the OEM parent companies' strategies is to reduce costs and increase market share. The actions taken to achieve the OEMs' aim therefore have implications for the choice of their sourcing and outsourcing locations. In the context of the South African automotive industry these choices are important in generating vehicle export business and attracting investments in vehicle manufacturing plants locally.

1.3 OVERVIEW OF THE GLOBAL AND SOUTH AFRICAN AUTOMOTIVE INDUSTRY

The global automotive industry structure consists of a supply side and a demand side. Attempts by key role-players in the supply side to meet the needs of the demand side find expression in the major global trends and developments governing the global automotive industry. The global automotive industry is experiencing the effects of change in an accelerated way owing to the globalisation of production. The cost-

cutting strategies implemented by global OEMs, and as a consequence also by their suppliers, are fundamentally driven by certain strategic underlying major global trends. Most notably the challenges are induced by mergers and acquisitions, global production overcapacity, outsourcing and sourcing strategies, new technology and innovation as well as environmental requirements. These realities have important implications for the automotive industry, especially in developing countries. Developing countries, which are being increasingly integrated into the global automotive supply, have to cope with and incorporate the direct impact of these major global trends on their operations. In addition, they also have to compete with each other for sourcing and outsourcing opportunities.

The global automotive industry is technologically advanced, both in terms of manufacturing processes and in its products. It is characterised by economies of scale and low unit costs, despite the increasing complexity of the fundamental product. OEMs are thus seeking to differentiate their products through technology and branding (Havenga as cited by Lamprecht, 2006a:15) and the increasing number of new models launched annually signals the OEMs' product offensive to win market share (KPMG, 2005b:2; KPMG, 2006:2, 3). The proliferation of models and the development of niche market products, however, could open up important new opportunities for developing, lower-cost producing countries. It is within this fast changing environment that many developing countries, such as South Africa, are seeking to create for themselves a role as producers of vehicles and automotive components. When the domestic market is not large enough to absorb the production, the focus is on exports and, in most cases, the ultimate goal for developing countries is to protect their balance of payments. Some developing countries, however, intend to establish fully fledged automotive industries mainly via protectionist policies to foster domestic development (Lamprecht, 2006a:15).

As was the case with many other developing countries, the South African automotive industry developed under high levels of protection (Black, 2001:3). According to Flatters (2002:2) one thing that distinguishes the motor industry from other industrial sectors is the importance of government policies in steering its development. The policies that have driven the South African automotive sector are therefore central to understanding the sector's history and its recent accomplishments.

The researcher recognises that, although a supportive legislative and regulatory regime provides an environment that is conducive to firms' participation, a successful outcome still depends on several key issues. These issues entail 1) the way individual firms respond to the relevant automotive policy; 2) the industry's competitive advantages; 3) the country's comparative advantages; 4) the country's level of trade liberalisation; and 5) the influence of the global strategies of OEM parent companies on their fully integrated subsidiaries.

Insofar as the research proposal for this study is concerned, a comprehensive key word search of the National Research Foundation database has been carried out to identify the relevant research proposals and the dissertations undertaken. To date, no research on "The impact of the Motor Industry Development Programme (MIDP) on the export strategies of the South African light motor vehicle manufacturers (1995–2008)" appears to have been done or have been proposed in South Africa.

1.4 RESEARCH PROBLEM AND OBJECTIVES

Supplying automotive components and completely built-up units (CBUs) to the world has grown from virtually no exports before 1995 to become a major South African industrial activity. According to Voutsinas (2006:23–38), the automotive industry would not in general expand production in markets that are geographically isolated or if the domestic market were small, such as is the case with South Africa. Nonetheless, the stakeholders cooperated and set the stage for the automotive industry to become South Africa's leading manufacturing sector. Within the global reality of overcapacity, South Africa has to increasingly brand itself as an attractive production hub for niche vehicle platforms. South Africa's competitive advantages, such as its proven small and flexi-run production capabilities, allow it to fit into the broader global strategies of parent companies.

Prior to 1995, many OEMs had majority domestic ownership; in 2008 all OEMs were wholly foreign owned. This structural shift in ownership and, hence, decision-making power has enabled manufacturing changes in favour of fewer models with much higher volumes through exports. The MIDP's import/export complementation scheme is regarded as the cornerstone for achieving the integration of the South African operations into the procurement chains of global automotive companies. Provided a

company exports automotive components or CBUs, it can use the credits generated to import the lower volume vehicles not manufactured in the country at duty-free levels. In addition, original equipment component requirements used to manufacture the vehicles can also be imported duty free in the same manner. In effect, this allows companies to complement their domestic model mixes with imported models and source automotive components at world-best prices while offsetting the negative cost factor of geographic dislocation (Voutsinas, 2006:23–38). The MIDP's role therefore is one of enhancing the domestic automotive market in the global automotive environment (Lamprecht, 2006a:1, 287).

Investment in infrastructure and production capacity in the domestic automotive industry has arisen directly as a result of the export opportunities offered by the MIDP (Mawson as cited by Lamprecht, 2006a:101). From 1994 to 1997, the domestic automotive industry was recorded as the second largest recipient of foreign investment of any sector. At the time, this trend illustrated the extent to which the MIDP had leveraged investment into the industry (DTI, 1997a:11; Humphrey & Memedovic, 2003:37). The successful implementation of export projects by the German-based OEMs has broken ground for higher volume model manufacturing. The Japanese and US-based OEMs have subsequently joined with export programmes. The export expansion by the South African OEMs, based on their outward investment, will be discussed in chapter 5.

The domestic industry's structure and evolutionary path is tightly aligned with its OEM parent company strategies in both the domestic and global markets. The increasing export orientation of the domestic OEMs has thus fundamentally changed the structure of their own operations as well as those of the automotive component industry (Barnes & Black, 2004:5). South Africa's participation in the World Trade Organization (WTO), its competitive advantages and its special relationships with the EU and other trading regions make it fit into their broader global sourcing strategies (DTI, 2003b:21).

However, despite the significance of the automotive industry for the South African economy, its 2008 global vehicle production market share only amounted to 0,80%. In addition, more than 85% of South Africa's exports travel more than 8 000 km, further

than the exports of any other significant trading partner (Graham, 2004:4; NAAMSA, 2009a:49). Furthermore, global vehicle sales have been relatively stable and automotive analysts expect only limited growth globally by 2010. In 2007 global vehicle sales were strongly dominated by the Triad countries of North America, Western Europe and Japan, representing in the order of 66% of global units sold (Automotive News Europe, 2008:6). Owing to the high level of vehicle ownership in the mature markets, sales mainly represent replacement demand and future growth is therefore limited. The stagnant sales level is problematic and is driving the restructuring of competitiveness dynamics within the global automotive supply chain. The reason why this limited growth is so problematic is that substantial vehicle production overcapacity, on average 24%, exists in the global automotive industry (PWC, 2009). Overcapacity means that production capacity exceeds market demand for the products capable of being manufactured. The intensity of the competitiveness challenge is unlikely to dissipate and the global automotive industry is confronted with some major challenges going forward.

The domestic automotive industry's vision under the new Automotive Production Development Programme (APDP), to replace the MIDP from 2013 onwards, is to manufacture 1,2 million vehicles a year in South Africa by 2020. The vision would reflect a quantum leap in terms of processes and technologies, and the scale at which the domestic automotive industry currently operates. This would require a mass producer to emerge from a collection of what are really only batch vehicle producers at the moment. Toyota SA is most likely to be this mass-vehicle producer as it has been the domestic market leader over the past 29 years as well as the main vehicle exporter from 2006 to 2008. Producing more than a million vehicles a year would mean that a substantial portion of this would have to be exported – around 50%. It also means that government infrastructure agencies, such as those responsible for the rail, ports and air-freight networks, must have their operational act honed (Tony Twine as cited in Venter, 2006f:16, 17). In the South African context another important factor impacting on the performance of the domestic automotive industry, and hence the performance of the MIDP, is the volatility of the rand. From 2002 onwards the increased strength of the rand has resulted in a sharp fall in inflation and substantial interest rate relief, thereby enhancing domestic demand. On the other hand, the

strong rand has significantly hampered the country's export competitiveness and, as a result, the performance of its manufacturing sector.

Given this background, it is the understanding that the South African OEMs have responded positively to the realignment of the incentive structure provided under the MIDP. The MIDP has been extended twice, from 2002 to 2007 and again from 2007 to 2012. The benefits of the MIDP have been phased down from 2003 onwards as part of the extension of the programme, which means that exports and/or local content need to increase every year to generate the same benefits as enjoyed in the current year. In addition, the import duties into South Africa will be reduced, resulting in increased import competition. The focus of the new APDP will also be less on rewarding exports and more on production.

The research problem requires an in-depth understanding of the extent, functioning and complexities of the MIDP as an automotive policy instrument in view of the achievements of the domestic automotive industry since 1995, taking into account the impact of exogenous factors.

In view of the research problem identified above, the primary objective of the study is to analyse

- the impact of the Motor Industry Development Programme (MIDP) on the export strategies of the South African light motor vehicle manufacturers (1995–2008)

The responses and opinions of the eight South African light motor vehicle manufacturers (original equipment manufacturers – OEMs), as well as 15 key automotive industry stakeholders from government, labour and business forming part of the empirical survey, will be captured. The eight OEMs, as the key drivers of the automotive supply chain, and the key industry stakeholders, representing the supporting subsectors of the automotive supply chain, represent the domestic automotive supply chain.

The secondary objectives of the study are grouped by the relevant themes of the study in Table 1.1 below.

Table 1.1: Grouping of the secondary objectives of the study by theme

Secondary objective	Theme
1. to determine whether the main focus of the South African OEMs' domestic light vehicle production is being aimed at the domestic market or exports 2. to determine whether a few concentrated or multiple export markets are preferred for South African OEMs' light vehicle exports	Export profile
3. to determine the impact of the SA-EU free trade agreement and AGOA trade arrangement on the generation of export business for South African OEMs 4. to determine the importance of the image of South African OEMs in respect of reliability of supply, quality and cost competitiveness of their South African manufactured light vehicle exports in penetrating new export markets 5. to determine South African OEMs' level of influence in decision-making in terms of determining new export destinations for their South African manufactured light vehicles 6. to determine the most important constraint factor impacting on market access to foreign markets for South African manufactured light vehicles	Marketing principles
7. to determine the most important determinant of foreign-market pricing in setting the export price for South African manufactured light vehicles 8. to determine the most important criterion for selecting export destinations for South African manufactured light vehicles 9. to determine the most important factor contributing to an increase in South African manufactured light vehicle exports	Strategic principles
10. to expand and collate the existing body of theory and knowledge in respect of the South African-based OEMs' full integration into the global networks of their OEM parent companies 11. to expand and collate the existing body of theory and knowledge relating to key economic sectors by recognising their synergies with	General

the automotive value chain 12. to identify potential areas for further research based on the quantitative and qualitative research done for this study.	

A total of seven hypotheses have been set and these will be tested on the basis of responses to the questions in the empirical survey of this study. These hypotheses are aligned with the primary and secondary objectives of the study as well as with the questions contained in the empirical survey. Owing to the diverse responses from the selected groups relating to unique circumstances and strategic priorities, hypotheses were not set or formulated for each of the secondary objectives. The hypotheses, as outlined below, will be discussed in chapter 8 to further substantiate the objectives achieved, the conclusions reached and the recommendations made.

- **Hypothesis 1:** There is a general agreement between the selected groups on the importance of government support in the form of the MIDP to sustain the automotive industry in South Africa (primary objective).
- **Hypothesis 2:** There is a general agreement between the selected importance rating groups related to the South African OEMs' image in respect of reliability of supply, quality and cost competitiveness for each of the factors contributing to an increase in their light vehicle exports (Objective 4).
- **Hypothesis 3:** There is a general agreement between the selected level of influence groups related to the South African OEMs' level of decision-making power in determining new export destinations for the factors that could contribute to an increase in their light vehicle exports (Objectives 5 and 9).
- **Hypothesis 4:** There is a general agreement between the selected demographical groups regarding the importance of constraint factors on access to foreign markets for South African manufactured light vehicles (Objective 6).
- **Hypothesis 5:** There is general agreement between the selected demographical groups regarding the importance of the determinants of foreign-market pricing in setting the export price for South African manufactured light vehicles (Objective 7).

- **Hypothesis 6:** There is general agreement between the selected demographical groups regarding the importance of selection criteria when selecting export destinations for South African manufactured light vehicles (Objective 8).
- **Hypothesis 7:** There is general agreement between the selected demographical groups regarding the importance of factors contributing to an increase in South African manufactured light vehicle exports (Objective 9).

1.5 RESEARCH DESIGN

The research design will include

- exploratory research carried out by means of a literature study, and
- descriptive research conducted using a quantitative and qualitative empirical survey.

The literature study will include a focus on the theoretical foundations for international marketing and competitiveness and will include a focus on the key characteristics of both the global and the South African automotive industries. Furthermore, the evolution of automotive policy in South Africa, the rationale behind the implementation of the MIDP, the operations of the MIDP, and the performance of the South African-based OEMs in terms of their respective export strategies under the MIDP will also be covered.

For the purposes of this study, secondary data will be obtained via the literature study and primary data will be obtained by means of a survey and personal interviews, which will be conducted with the eight South African-based OEMs and 15 key industry stakeholders from government, labour and business. The key industry stakeholders represent the automotive industry subsectors, forming part of the Motor Industry Development Council (MIDC). The MIDC was established in 1996 by the then Minister of Trade and Industry as a joint industry–government–labour body and has a major influence on strategies and policies for the automotive industry.

There are eight OEMs manufacturing light vehicles (passenger cars and light commercial vehicles) in South Africa, supported by over 400 automotive component

suppliers. However, the vast majority of exports take place via the eight OEMs as a mechanism for generating Import Rebate Credit Certificates (IRCCs) used to rebate the import duties on CBUs and original equipment components. In the minutes of the Monitoring Committee of the MIDC of 25 March 2009, the International Trade Administration Commission (ITAC) reported that the distribution of IRCCs for 2008 comprised 85% for the OEMs, 14% for the independent vehicle importers and 1% for the automotive component manufacturers. The ITAC is a division at the DTI responsible for processing IRCC claims.

The domestic OEMs are a typical exporting link for automotive components. The OEM parent companies demand a certain portion of their global procurement from a first tier supplier, located in South Africa, with the understanding that all IRCC benefits will be ceded to the OEMs' South African operations. Alternatively, the first tier automotive component companies in South Africa sell products on an ex-works basis to the South African-based OEMs or independent vehicle importers, who then take responsibility for exporting the product. The OEMs and vehicle importers are thus keeping the IRCC benefit, but they are liable for the transport and logistics of landing the product in the foreign market. Based on the distribution of IRCCs in 2008, the automotive companies exporting components directly comprise only 1% of the total export value. A diverse range of automotive components, subcomponents and aftermarket or replacement parts are exported. In 2008, automotive component exports amounted to R44,06 billion of which catalytic converter exports comprised 55% of the total, stitched leather parts exports 7,4% and engines and engine part exports 6,7% of the total (AIEC, 2009:21).

The roles of the key industry stakeholders that formed part of the empirical survey will be described in chapter 6. The empirical survey will aim to obtain the perceptions and inputs of the eight South African-based OEMs and 15 key automotive industry role-players and will include structured interviews with the respondents. The empirical research will aim to establish the impact of the MIDP as a policy instrument in influencing past and current export strategies of South African-based OEMs in line with the objectives of the study.

1.6 RESEARCH METHODOLOGY/METHODS

The methodology for this study will incorporate an extensive exploratory and descriptive research phase (qualitative and quantitative) followed by an analysis of key issues and the synthesis thereof into meaningful conclusions. Various statistical analyses in the form of tabulation will be conducted by the Resident Statistician, Centre for Business Management, Unisa. Statistical Package for Social Sciences (SSPS) and Excel computer programs will be used to process the data in order to facilitate a discussion of the research results. Cross-tabulations will also be used to determine the effect of certain dependent variables on certain independent variables. Where relevant, the frequency tables and indexes will be further analysed in order to determine more detailed relationships based on a breakdown of the respondents. The breakdown will be categorised in OEMs responses and the key industry stakeholder responses. Possible relationships based on the demographic details of the OEMs will also be analysed. The frequency tables and indexes will be supported by a descriptive analysis of the processed responses captured from the empirical survey, the structured interviews and the literature study.

The surveys and interviews will aim to capture specific information in respect of the role and importance of the MIDP as an automotive policy instrument. More specifically, the aim of the research will be to establish and measure the impact of the MIDP on the export strategies of South African-based OEM subsidiaries in the global automotive environment (1995–2008). The research will be conducted via a non-probability, purposive sample aimed at capturing the responses and perceptions of specific representatives of all eight of the South African-based OEMs, as well as 15 key automotive industry stakeholders representing government, and the labour and industry subsectors. The criteria will include measuring the MIDP as an automotive policy instrument in terms of its perceived influence on the export strategies of domestic OEM subsidiaries. The impact of exogenous factors on the operations of South African OEMs will also be analysed and measured. The survey and structured interview information will be processed to provide an aggregate output for each of the individual questions based on quantitative and qualitative responses in line with the objectives of the study.

1.7 LIMITATIONS OF THE STUDY

In the context of this study the selected statistical analyses have certain limitations in terms of their potential influence on the reliability and validity of the research results.

The limitations of the study relate to the nature of the South African automotive industry and the relatively small response base concerned. In 2008 the domestic automotive industry's vehicle production amounted to only 0,80% of the global market share (NAAMSA, 2009a:49). The domestic automotive industry structure is also condensed insofar as the eight South African-based OEMs and 15 key industry stakeholders from government, labour and business by and large represent the interests of the entire domestic automotive industry.

1.8 OUTLINE OF THE STUDY

The structure of this report follows the logic applied in the methodology in order to achieve the objectives of the study, which is as follows:

- Chapter 1 covers the introduction to the problem statement, objectives and scope of the study.
- Chapter 2 focuses on the theoretical foundations of international marketing strategies and competitiveness. This chapter provides the framework for the relationship between theory and practice, the latter relating to the behaviour of global and South African automotive firms.
- Chapter 3 provides an overview of the dynamics and key trends of the global automotive industry. The trends and dynamics also impact on the South African automotive industry in general and the South African-based OEMs in particular, owing to their full integration into the global networks of their OEM parent companies.
- Chapter 4 provides an overview of the evolution of the South African automotive policy regime. The context in which the MIDP as a structural adjustment programme was introduced, followed by details of the rationale and operations of the MIDP, will be outlined and discussed.
- Chapter 5 focuses on the characteristics of the South African automotive industry and its achievements under the MIDP in line with the objectives of the study.

- Chapter 6 builds on the foundation of the previous chapters in order to present the research design and methodology of the study.
- Chapter 7 deals with the processed research findings in the context of the study, the aim of which is to analyse the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008). The research findings will be based on an empirical survey covering the responses of the eight South African-based OEMs and 15 key industry stakeholders.
- Chapter 8 assesses the research findings in the context of the study and present conclusions and recommendations relating to the primary objective as well as the secondary objectives of the study.

CHAPTER 2: INTERNATIONAL MARKETING AND COMPETITIVENESS – THEORETICAL FOUNDATIONS

2.1 INTRODUCTION

Chapter 2 focuses on the theoretical principles underlying international marketing strategies and competitiveness. International marketing combines the science and art of business with many other disciplines. These disciplines include economics, anthropology, cultural studies, geography, history, languages, jurisprudence, statistics, demographics and other fields which combine to assist in exploring the global market (Czinkota & Ronkainen, 2007:3, 4). In the context of the global automotive environment the design of international marketing functions reside with the OEM parent companies. However, the operations of the OEM subsidiaries are greatly affected by international marketing and competitiveness, as the basic marketing tenets of “satisfaction” and “exchange” are retained by obtaining an improvement of their present position. A firm’s ultimate success depends primarily on how well it performs in the marketplace. Czinkota and Ronkainen (2007:3, 11, 14) state that with wider market reach and more customers, firms have benefited substantially from global marketing expansion. However, in order to succeed knowledge of the market is required. Furthermore, firms must monitor the marketing activity of their domestic and international competitors and develop appropriate long-term marketing strategies and competitive responses.

According to Doole and Lowe (2004:4, 5), the cumulative effect of all the international marketing dimensions is significant and consumers are the greatest beneficiaries of all. They are offered an unprecedented degree of product availability and choice. Furthermore, owing to international competition, the prices of these products are usually lower and offer better quality of life to a broad spectrum of individuals. To deal with the size of the global economy, companies are consolidating through mergers, acquisitions and alliances to reach the scale considered necessary to compete in the global arena. At the same time, there is a trend towards global nationalisation, seeking world standards for efficiency and productivity. The global marketplace is simultaneously becoming economically, culturally and technically interdependent through the consistent thrust of technological innovation. The combination of all these

factors has meant that all firms need to develop a marketing orientation that is international and therefore they have to analyse, plan and implement strategies across the globe.

The relationship between theory and practice will become evident as the realities of the global and the South African automotive industry environments are discussed in chapters 4 and 5. Chapter 2 focuses on international trade and competitiveness principles, the international marketing environment, international market entry and development, the export marketing mix elements and global marketing management, which will be discussed next.

2.2 INTERNATIONAL TRADE AND COMPETITIVENESS PRINCIPLES

Marketing is an economic activity affected by the economic environment in which it is conducted. International marketing takes place in a dual economic environment, namely the global economy and the economy of individual countries (Burgess & Bothma, 2007:6). Although the primary focus of this chapter is on international marketing, a brief focus on the theory of international trade and competitiveness principles will assist in understanding where to locate supply or production sources.

Essentially, international trade theory seeks the answers to a couple of basic questions: Why do nations trade? What goods do they trade? International trade and exports in particular play a pivotal role in the economic development of all countries and thus help to improve the general standard of living. Not surprisingly, most governments pursue economic policies aimed at increasing export earnings on a national scale. International trade also offers the individual firm numerous benefits (ibid, 2007:6). In a South African context, after the country's trade liberalisation in 1994, most of the country's manufacturing companies tended to move into exports because they were seeking growth and increased sales opportunities.

The roles played and the approaches followed by different countries in the globalisation of production will depend on their absolute, comparative and competitive advantages, which will be discussed next.

2.2.1 ABSOLUTE, COMPARATIVE AND COMPETITIVE ADVANTAGE

Nations trade for economic, political and cultural reasons, but the principal economic basis for international trade is difference in price. That is, a nation can buy some goods more cheaply from other nations than it can make them itself. The two key explanations for why nations trade, however, are based on the theory of comparative advantage and the product life cycle, the latter referring to a product's consumption pattern. According to the product life cycle concept, many products go through a trade cycle wherein one nation is initially an exporter, then loses its export markets, and finally may become an importer of the product. It therefore assists the firm to know when to source, or produce, abroad (Terpstra & Sarathy, 2000:34, 39, 40).

Doole and Lowe (2004:41, 42), however, state that although the product life cycle provides an interesting insight into the evolution of multinational operations, it provides only a partial explanation of world trade since products do not inevitably follow this pattern. Firstly, competition today is international rather than domestic for all goods and services. Consequently, there is a reduced time lag between product research, development and production, leading to the simultaneous appearance of a standardised product in major world markets. Secondly, it is not production in the highly labour-intensive industries that is moving to the low labour cost countries but the capital-intensive industries, such as electronics. This creates the anomalous situation of basing production for high-value, high-technology goods in the countries least able to afford them. Nor does the product life cycle model go very far in explaining the rapid developments of companies networking production and marketing facilities across many countries. Thus global business integration and the sharing of R&D, technological and business resources are seen as a more relevant explanation for today's world trade.

In South Africa, domestic demand extended the life cycle of the Volkswagen Golf 1 and the Toyota Tazz models, as will be discussed in chapter 5. The Golf 1 was introduced in May 1978 and is still produced by Volkswagen South Africa with over 500 000 units produced up to 2008. The Toyota Tazz model, although phased out in all other producing countries, continued to be produced in South Africa up to 2006.

According to Burgess and Bothma (2007:60, 61) and Hill (2007:172) absolute advantage, in terms of Adam Smith's famous theory, is selling what you are best at producing. Price differences are the immediate basis of international trade. Adam Smith suggested that a nation maximises its supply of goods by concentrating production where it is most efficient, and trading some of these products for imported products where it is least efficient (Terpstra & Sarathy, 2000:39, 40; Hill, 2007:169, 170).

Ricardo's theory of comparative advantage provides a further rationale for world trade. Presented in his 1817 *Principles of political economy*, David Ricardo's theory states that even if someone else is better it is still possible to be profitable in what one is best at producing. Comparative advantage measures a product's cost of production not in monetary terms but in terms of the forgone opportunity of producing something else. The notion of comparative advantage requires that nations make intensive use of those factors that they possess in abundance, in particular, land, labour, natural resources, and capital (Gillespie et al., 2004:21–23). At its simplest level, the theory suggests that trade between countries takes place because one country is able to produce a product at a lower price than is possible elsewhere. According to Doole and Lowe (2004:41, 42), a comparative advantage can be achieved via

- a sustained period of investment
- lower labour cost
- proximity to raw materials
- subsidies to help native industries
- building expertise in certain key areas.

Michael Porter argues that even though the theory of comparative advantage has appeal, it is limited by its traditional focus on land, labour, natural resources and capital. Porter argues that the theory does not adequately explain patterns of trade and that attention should rather be focused on productivity and thus the competitiveness of the industry and industry segments that operate within an economy (Gillespie et al., 2004:23; Burgess & Bothma, 2007:64). Porter (1990:74) states that a nation's competitiveness depends on the capacity of its industry to innovate and upgrade. Firms in a competitive environment are forced to produce quality products

efficiently; they benefit from having strong domestic rivals, aggressive home-based suppliers and demanding domestic customers.

Differences in national values, culture, economic structures, institutions and histories all contribute to competitive success. Porter argues that the prevailing thinking on labour costs, interest rates, exchange rates, economies of scale and more government support, which are regarded as the most potent determinants of competitiveness by companies and governments, is flawed. The determinants fundamentally misunderstand the true sources of sustainable competitive advantage as they only have short-term appeal.

Porter's theory on the competitive advantage of nations is discussed in more detail in the next section.

2.2.2 COMPETITIVE ADVANTAGE OF NATIONS

Porter's expanded theory on the competitive advantage of nations (CAN) depends on the following four factors in his diamond model, as explained in figure 2.1, and explores whether or not a country will have a significant impact on the competitive advantage of an industry (Doole & Lowe, 2004:41, 42; Burgess & Bothma, 2007:64; Hill, 2007:188)

1. *Firm strategy, structure and rivalry* concern the conditions governing the way companies are created, organised and managed and the nature of domestic rivalry. Porter portrays domestic rivalry as the major spur to new technology and innovation and hence success in international competition.

2. *Demand conditions* are the nature of home demand for the industry's product or service and affect a sector's ability to compete internationally through three mechanisms.

- First, an industry will have an advantage in market segments, which are more important at home than elsewhere.

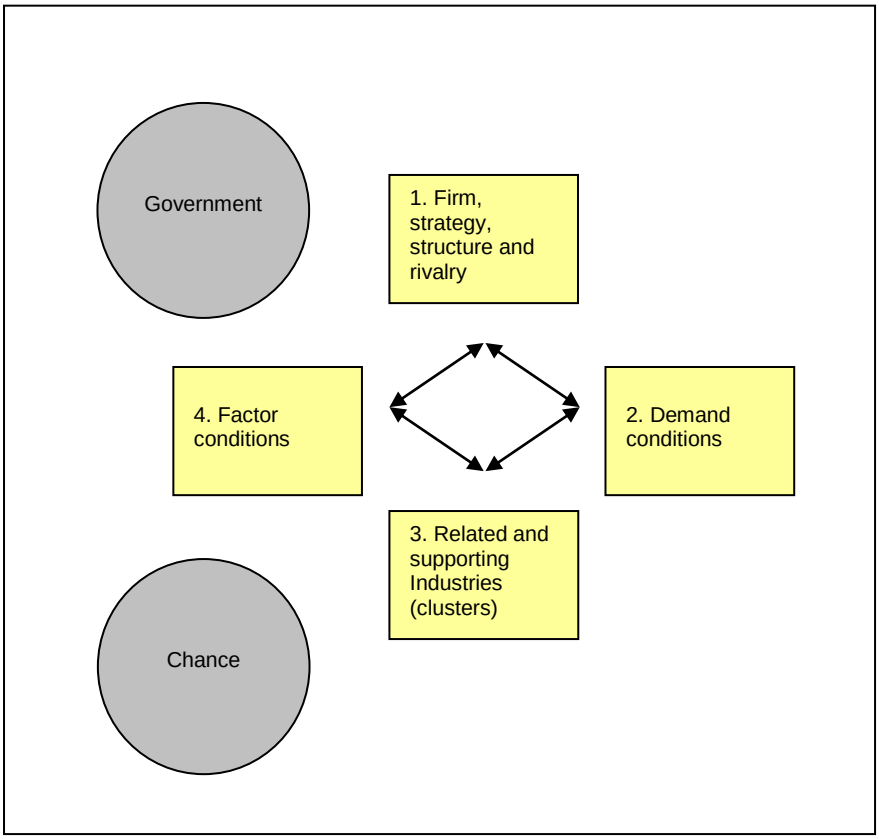

Figure 2.1: Automotive diamond model
Source: Porter, 1990; Hill, 2007:188

- Second, demanding buyers in the home base pressure companies into meeting high standards.
- Third, a nation's industries gain if buyers at home anticipate the needs of buyers in other countries, thereby giving it a lead in learning how to meet those needs.

In each of these instances, it is not the size of the home market that is important, but the extent to which it encourages firms to innovate. Saturation of the domestic market may spur firms to go abroad, forcing them to compete in the world market.

3. *Related and supporting industries* relate to the presence or absence of supplier industries and related industries that are internationally competitive. A nation's industries in the home base will be assisted to compete better internationally if there are clusters of industries in the home-based economy that are linked to each other.

Linkages include vertical or horizontal relationships between supplying and buying sectors or common customers, distribution channels or technologies.

4. *Factor conditions* – an industry requires an appropriate supply of factors in its home base if it is to be successful. Basic factors include climate, raw materials and unskilled labour, while advanced factors include infrastructure and skilled labour.

While the diamond is the central focus, allowance is made for two other factors, namely *chance and government*. Chance includes unpredictable technological discontinuities, wars and other chance events. These are not part of the diamond itself, but they may alter the conditions within it. Similarly, according to Porter (1990:87), government has an indirect role to play as a catalyst and challenger, but only affects the corners of the diamond. Porter does not attribute a positive role to active industrial policy. He states that it often takes more than a decade for an industry to create a competitive advantage as the process entails the upgrading of human skills, investment in products and processes, building of clusters and penetration of foreign markets. Governments tend to favour policies that offer easily perceived short-term benefits, which might hamper innovation.

The heart of CAN may be found in the following five central propositions (Davies & Ellis, 2000:1190–1193):

- A nation must reach the innovation-driven stage of development if prosperity is to be attained and sustained.
- International success cannot be based on the comparative advantage brought about by an abundance of basic factors. Instead, it must be built on the upgrading of a nation's industries through innovation, product differentiation, branding and marketing.
- A nation's prosperity is determined by the performance of the firms for whom it is a home base.
- In order to achieve sustained prosperity those firms must operate within clusters or related industries, which have strong diamonds in the home nation.

- Outward foreign direct investment is a manifestation of an industry's competitive strength and the nation's prosperity, while inward investment is a sign of relative weakness.

In terms of the five central propositions as outlined by Davies and Ellis (2000:1190-1193), Porter concludes that for a nation to achieve a competitive advantage an industry requires a combination of all four of the central propositions and the central propositions must be mutually supportive in order to be successful. He also contends that government can influence each of the four components of the diamond, either positively or negatively (Hill, 2007:191).

Porter (2008:79–91) further states that the job of the strategist is, in essence, to understand and cope with competition. Competition for profits goes beyond established industry rivals to include customers, suppliers, potential entrants and substitute products as competitive forces. The extended rivalry that results from all five forces defines an industry's structure and shapes the nature of competitive interaction within an industry. As different from one another as industries might appear on the surface, the underlying drivers for profitability are the same. Industry structure in terms of the five forces drives competition and profitability, not whether an industry produces a product or service, is emerging or mature, high tech or low tech, regulated or unregulated. While a myriad of factors can affect industry profitability in the short run, industry structure, as manifested in the competitive forces, sets industry profitability in the medium and the long run. The configuration of the five forces differs by industry. The strongest competitive force or forces determine the profitability of an industry and become the most important to strategy formulation. The most salient force, however, is not always obvious. Industry structure grows out of a set of economic and technical characteristics that determine the strength of each competitive force.

2.2.3 ARGUMENTS AGAINST PORTER'S THEORY OF THE "COMPETITIVE ADVANTAGE OF NATIONS"

Burgess and Bothma (2007:64, 65) state that some confusion sets in when the competitiveness of nations, based on the competitiveness of their firms, is portrayed as an alternative to the comparative advantage theory. Firstly, the concept of the "competitiveness of nations" is a peculiar idea. In the world of international trade it is

firms from different nations that compete against each other and not nations that compete. Secondly, the comparative advantage theory as such merely sets out the rationale for trade under conditions where countries can benefit from specialisation by exporting goods in which they do not have an absolute cost advantage. This in itself is a powerful concept that has no alternative. The theory as such does not explain why a nation has a comparative advantage or disadvantage in particular goods.

Davies and Ellis (2000:1193, 1194) conclude that Porter's admirers saw CAN as an integrating device between disciplines. It is a theory that might help to explain success in international trade and a framework for empirical work and policy prescription that could be applied to other countries. His detractors saw a set of theoretical commonplaces, a dubious methodology and a list of environmental attributes and firm behaviours that might or might not help industries succeed in international competition.

Davies and Ellis (2000:1209) review CAN and conclude that CAN's conceptual foundations are undermined by three basic confusions.

- The first confusion is between competitiveness construed as productivity and competitiveness construed as the market share held by a subset of industries.
- The second confusion is between the nation construed as the people in one place and the nation construed as the firms for whom that place is the home base.
- The third confusion arises from the interpretation of competitive advantage as an equivalent concept to comparative advantage. A competitive advantage explains how firms in an industry compete with each other while a comparative advantage concerns which industries a country should have. The combined effect of the confusions was to create a gap between that which was to be explained and that which was actually examined.

With regard to methodology, CAN failed the basic test as it contains no set of *ex ante* hypotheses to be tested on an appropriate set of data. Central assertions are drawn from the data in some unspecified manner, which makes it impossible to judge their validity. The sample consisted almost entirely of industries identified as successful,

preventing direct comparison between industries exhibiting different levels of performance (ibid, 2000:1209).

Davies and Ellis (2000:1209) argue that all five of CAN's major assertions have been refuted. A nation does not need to reach the innovation-driven stage in order to achieve sustained prosperity. A nation's prosperity does not depend on the activities of the firms for whom it is a home base. Industries that are internationally competitive do not generally have strong diamonds. Inward foreign direct investment is not a sign that an economy is weak in terms of its competitiveness/productivity and international success does not always need to be based on upgrading through innovation, product differentiation and branding.

For the researcher the arguments for and against Porter's CAN imply that a single strategy may not be appropriate across all developing countries. He concurs with Humphrey and Memedovic (2003:29) who state that developing countries need to consider strategies within the context of trends in the global market. The scope for marketing and promoting an industry and the restructuring processes vary considerably according to the kind of industry as well as the development stage of an industry in its integration into the global economy. According to Hill (2007:195) theories of international trade are important to an individual firm primarily because they can help the firm decide where to locate its various production activities.

As far as South Africa is concerned, the country is relatively new in the global arena after its first decade of trade and economic liberalisation in 1994. Chapters 4 and 5 highlight the way intelligently designed selective automotive policies can be effective in a developing country such as South Africa. The MIDP was implemented during the period of rapid trade liberalisation together with government's structural shift towards an export-oriented economy. The domestic automotive industry's achievements under the MIDP, the country's comparative advantages, the industry's competitive advantages as well as exogenous factors impacting on the performance of the MIDP will be discussed in chapter 5. It is recognised that variables could impact differently at a firm level given the dynamics of the host country, in this case South Africa. In addition, the South African OEM subsidiaries are governed by the global strategies of their parent companies in the USA, Europe and Japan, which could differ vastly.

The international marketing environment will now be discussed.

2.3 INTERNATIONAL MARKETING ENVIRONMENT

In the international marketing environment the marketing concept holds that achieving organisational goals depends on determining the needs and wants of the target market and delivering the desired products or services more effectively and efficiently than competitors (Strydom, 2004:10). International marketing is the process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services to create exchanges across national borders that satisfy individual and organisational needs. Hence, international marketing consists of finding and satisfying global customer needs better than the competition, both domestic and international. It also consists of coordinating marketing activities within the constraints of the global environment. The need for adjustment, for comprehending change, and in spite of all, for successfully carrying out transactions, highlights the fact that international marketing is as much art as science (Burgess & Bothma, 2007:8; Czinkota & Ronkainen, 2007:4).

2.3.1 MARKETING SCOPE

Marketing, by its very nature, is concerned with the interaction between the firm and the marketplace. The key difference between domestic marketing and marketing on an international scale is the multidimensionality and complexity of the many foreign country markets a company may operate in (Doole & Lowe, 2004:7). At its simplest level, international marketing involves the firm in making one or more marketing mix decisions across national boundaries. At its most complex it involves the firm in establishing manufacturing facilities overseas and coordinating marketing strategies across the globe. At one extreme there are firms that opt for international marketing simply by signing a distribution agreement with a foreign agent who then takes on the responsibility for pricing, promotion, distribution and market development. At the other extreme, there are huge global companies such as Ford with an integrated network of manufacturing plants worldwide and who operate in some 150 country markets (Doole & Lowe, 2004:5, 6). The marketing scope, according to Burgess and Bothma (2007:9–14), Gillespie et al. (2004:4–6) and Doole and Lowe (2004:6) may be described as follows:

- *Domestic marketing* – is aimed at a single market, the firm's domestic market. Domestic marketing involves the company manipulating a series of controllable variables such as price, advertising, distribution and the product in a largely uncontrollable external environment. Domestic marketers are generally non-exporters.
- *Export marketing* – takes place when the firm markets its goods and/or services across national/political boundaries and when products are physically shipped from one country to another on an occasional or regular basis.
- *International marketing* – involves operating across a number of foreign country markets. Not only do the uncontrollable variables differ significantly between one market and another, but the controllable factors are also likely to differ significantly. A company that practises international marketing goes beyond exporting and becomes more directly involved in the local marketing environment within a given country. Understanding different cultural, economic and political environments becomes necessary for success in international markets.
- *Multinational marketing* – came about as a result of the multinational corporation. These companies, characterised by extensive investments in assets abroad, operate in a number of foreign countries as though they were local companies. Multinationals traditionally pursue a multi-domestic strategy wherein the multinational firm competes by applying many different strategies, each one tailored to a particular local market.
- *Pan-regional marketing* – given the diseconomies of scale that plague individualised marketing strategies, each tailored to a specific local environment, many companies have begun to emphasise strategies for larger regions. These regional strategies encompass a number of markets and have come about as a result of regional economic and political integration.
- *Global marketing* – takes place where the company coordinates, integrates and controls a whole series of marketing programmes into a substantial global effort. The primary objective of the company is to achieve a degree of synergy in the overall operation. By taking advantage of different exchange rates, tax rates, labour rates, skills levels and market

opportunities, the organisation as a whole will be greater than the sum of its parts. The firm coordinates its global activities centrally with the aim of achieving a global competitive advantage.

There are a variety of reasons for companies becoming involved in foreign markets. Responding to orders from abroad, a domestic competitive situation, reaching maturity in the domestic market, following customers moving abroad or pure economics are some of the reasons listed. As will be discussed in chapter 4, the South African automotive industry's motivation to export is embedded in the import/export complementation scheme of the MIDP. Owing to the relatively small domestic market, exports provide the benefit of higher volume production and economies of scale benefits. CBU and automotive component exports enable exporters to rebate the import duties on CBUs and their original equipment component requirements under the MIDP in order to achieve duty neutrality.

2.3.2 THE IMPORTANCE OF WORLD TRADE

The globalisation of markets refers to the merging of historically distinct and separate national markets into one huge global marketplace. Falling barriers to cross-border trade have made it easier to sell internationally. The globalisation (sometimes referred to as internationalisation) of production entails products being manufactured by many firms in different countries, each often specialising in a part of the production process. Geographic proximity or closeness to the relevant production area is not necessarily required in order to operate efficiently, and different stages of production are distributed throughout the world. The global corporation operates as if the entire world were a single entity. Companies hope to lower their overall cost structure and/or improve the quality or functionality of their product offering, thereby allowing them to compete more effectively (Burgess & Bothma, 2007:6, 7; Hill, 2007:6, 7).

Global markets are expanding rapidly. Foreign goods are central to the living standards of all nations. Firms can now reach more customers, new jobs are being created and consumers all over the world can find a greater variety of products at lower prices. The level of global investment is also increasing and the shifts in financial flows have had major effects (Gillespie et al., 2004:12, 18). International specialisation and cross-sourcing have made production much more efficient.

Furthermore, new technologies have changed the way of doing business, allowing access to both supply and demand products from across the world. As a result, it becomes increasingly difficult to define where a particular product was made. In addition, there are trading blocs such as the European Union, which encourages trade relations between its members, but through its rules and standards also affect the trade and investment flows of non-member countries. World trade has given rise to global linkages of markets, technology and living standards that were previously unknown and unanticipated. At the same time, it has affected domestic policymaking and has often resulted in the emergence of totally new opportunities as well as threats to firms and individuals (Czinkota & Ronkainen, 2007:5, 6).

2.3.3 DOMESTIC POLICY REPERCUSSIONS

Policymakers have increasingly come to recognise that it is very difficult to isolate domestic economic activity from international market events. Decisions that once were clearly in the domestic purview have now become subject to revision by influences from abroad. Any policy consideration must now be seen in the light of international repercussions owing to influences from global trade and investment. Independent of trade, currency flows set the exchange rates, which are the values of currencies relative to each other. These exchange rates in turn have now begun to determine the level of trade (Burgess & Bothma, 2007:113; Czinkota & Ronkainen, 2007:8, 9).

In the study of international trade, the principal source of information is the balance of payments of the trading nations. The balance of payments is an accounting record of transactions between the residents of one country and the residents of the rest of the world over a given period of time. The concept of a deficit occurs when the particular outflows or uses of funds exceed the inflows or sources of funds, while a surplus occurs when the inflows exceed the outflows (Gillespie et al., 2004:24, 25; Burgess & Bothma, 2007:122). The balance of payments data help government policymakers plan monetary, fiscal, foreign exchange and commercial policies. Commercial policy is the term used to refer to government regulations bearing on foreign trade. The global market imposes increasingly tight limits on national economic regulation and sovereignty. To regain some of their power to influence events, policymakers have sought to restrict the impact of global trade and financial flows by erecting barriers, changing tariffs, designing quotas and implementing other import regulations.

However, these measures too have been restrained by international agreements that regulate trade restrictions, particularly through the WTO (Gillespie et al., 2004:33, 34; Czinkota & Ronkainen, 2007:9, 10).

2.3.4 OPPORTUNITIES AND CHALLENGES

To prosper in a world of abrupt changes and discontinuities, of newly emerging forces and dangers, of unforeseen influences from abroad, firms need to prepare themselves and develop active responses. According to Czinkota and Ronkainen (2007:9, 10) new strategies need to be envisioned, new plans need to be made and the way of doing business needs to be changed. To help a country remain a player in the world economy, governments, firms and individuals need to respond aggressively with innovation, process improvements and creativity.

The growth of global business activities offers increased opportunities. International activities can be crucial to a firm's survival and growth. By transferring knowledge around the globe, an international firm can build and strengthen its competitive position. Firms that depend heavily on long production runs can expand their activities far beyond their domestic markets and benefit from reaching many more customers. Market saturation can be avoided by lengthening or rejuvenating product life cycles in other countries. Production sites once were inflexible, but now plants can be shifted from one country to another and suppliers can be found on every continent. Cooperative agreements can be formed that enable all parties to bring their major strengths to the table to emerge with better products, services and ideas that they could produce on their own industries (ibid, 2007:9, 10).

Firms must adapt to the international environment if they are to be successful. Willing or unwilling, firms are becoming participants in global business affairs. Even if not by choice, most firms and individuals are affected directly and indirectly by economic and political developments that occur in the international marketplace. Firms are also faced with challenges. Those firms that refuse to participate are relegated to react to the global marketplace and therefore are unprepared for harsh competition from abroad. Some industries have recognised the need for international adjustments. Higher productivity, forging global relationships, shifted production and adjusting core business are some of the responses to the challenges from abroad. The result for

industries in countries that were caught unaware and have been unable to adjust was the extinction of firms or entire industries (ibid, 2007:9, 10).

2.3.5 STRATEGIC MARKETING

The concepts of satisfaction and exchange are the core of marketing. A key task is to recognise the ever-changing nature of needs and wants. Strategic marketing is to plan and execute programmes that will ensure a long-term competitive advantage for the company. According to Czinkota and Ronkainen (2007:18, 19) the task has two integral parts, which are:

- determining specific target markets, and
- marketing management, which consists of manipulating marketing mix elements to best satisfy the needs of individual target market(s).

2.3.5.1 Target market selection

Characteristics of intended target markets are of critical importance. These characteristics can be summarised by eight Os, namely occupants, objects, occasions, objectives, outlets, organisation, operations and opposition. Czinkota and Ronkainen (2007:18–19) explain the eight Os as follows:

- *Occupants* are the customers that must be defined along numerous dimensions.
- *Objects* are what are being bought at present to satisfy a particular need.
- *Occasions* are moments when members of the target market buy the product or service.
- *Objectives* are the motivations behind the purchase or adoption of the marketed concept.
- *Outlets* are the places where customers expect to be able to procure a product or to be exposed to messages about it.
- *Organisation* describes how the buying or acceptance of an idea takes place.
- *Operations* represent the behaviour of the organisation buying the products and services.
- *Opposition* refers to the competition to be faced in the marketplace.

In analysing the eight Os, the markets must be selected to which the efforts will be targeted. Due consideration should also be given to the external macro environment when the eight Os are analysed. The target market decision is important as business is operated in a corporate environment of scarcity and comparative strengths.

2.3.5.2 Marketing management

Having analysed the characteristics of the target market(s), the mix of marketing variables that will best serve each target market can be specified. The marketing variables are known as the four Ps, namely product, price, place and promotion (Burgess & Bothma, 2007: 45). Strydom (2004:195) states that the traditional view of the marketing mix has been expanded to take into account the growing importance of service products and their characteristics in the marketing mix. Three further factors are added, namely people, processes and physical aspects. The seven factors are summarised below (Burgess & Bothma, 2007:296; Czinkota & Ronkainen, 2007:19).

- *Product policy* is concerned with all elements that make up the good, service or idea that is offered. Included are all possible tangible characteristics such as the core product and packaging and intangible characteristics such as branding and warranties.
- *Pricing policy* determines the cost of the product to the customer – a point somewhere between the floor created by the costs to the firm and the ceiling created by the strength of demand. Price is the only revenue-generating element of the marketing mix; all the others represent costs.
- *Place* is part of the distribution policy and has two components, namely channel management and logistics management. Channel management is concerned with the entire process of setting up and operating the contractual organisation. It consists of various types of middlemen such as the wholesalers, agents, retailers and facilitators. Logistics management is focused on providing product availability at appropriate times and places in the marketing channel. Place is the most long term of all the marketing mix elements.

- *Promotion* tools are part of communications policy for interacting with customers, middlemen and the public at large. Since the purpose of all communications is to persuade, this is the most visible and sensitive of the marketing mix elements.
- *People* include all those who play a part in the delivery of service and influence buyers' perceptions and include the staff, the customer and the front-line service personnel.
- *Process* includes the actual procedures and activity flows through which service is delivered. The organisation's operating system and the service delivery system are included in this process.
- *Physical aspects* include the physical place of delivery of the product or service, as well as the boundary at which the company and the customer interact.

Blending the various elements into a coherent programme requires trade-offs. Trade-offs are based on the type of product or service being offered, the stage of the product's life cycle, resources available for the marketing effort, and the type of customer at whom the marketing efforts are directed. The purpose of the marketing management design is to determine the best combination of the marketing mix with the aim to achieve success in the target market(s).

2.3.6 THE MARKETING PROCESS

The actual marketing process consists of four stages, namely analysis, planning, implementation and control (Czinkota & Ronkainen, 2007:19, 20).

- *Analysis* begins with collecting data on the eight Os and using various quantitative and qualitative techniques of marketing research. The data are used to determine company opportunities by screening a plethora of environmental opportunities.
- *Planning* refers to the blueprint generated to react to and exploit the opportunities in the marketplace. The planning stage involves both long-term strategies and short-term tactics.
- *Implementation* is the actual carrying out of the planned activity. Plans must take into account unforeseeable changes within the company and

environmental forces and allow for corresponding changes to occur in implementing the plans.

- *Control mechanisms* must be put into effect concurrently with the implementation as the marketplace is dynamic and requires the monitoring of environmental forces, competitors, channel participants and customer receptiveness. The result of the control effort provides valuable input for subsequent planning efforts.

These marketing basics do not vary regardless of the type of market one is planning to enter or to continue operating in. They have been called the technical universals of marketing. The different environments in which the company operates will give varying emphasis to the variables and will cause the values of the variables to change (Czinkota & Ronkainen, 2007:19, 20).

In respect of the marketing process *inputs from respondents* regarding the level of influence of South African-based OEMs on the selection of new export markets for their light vehicles will be obtained via the empirical survey forming part of this study.

2.3.7 GEOGRAPHICAL PERSPECTIVES

The World Bank has estimated that by 2020 the Chinese economy could be larger than that of the USA, while the economy of India will approach that of Germany. The World Bank also estimates that today's developing nations may account for more than 60% of world economic activity by 2020. Furthermore, today's rich nations, which in 2007 accounted for over 55% of world economic activity, may account for only about 38%. This forecast suggests that a shift in the economic geography of the world is underway. Furthermore, as a result of the increasing trend towards regional economic integration and the numerous trade agreements that exist, the world economy has become more integrated than at any time in the past (Burgess & Bothma, 2007:85, 86; Hill, 2007:18, 19).

According to Czinkota and Ronkainen (2007:21–27) geography answers questions related to the location of different kinds of economic activity and the transactions that flow across national boundaries. It provides insights into the natural and human factors that influence patterns of production and consumption in different parts of the

world. It explains why patterns of trade and exchange evolve over time. Since a geographic perspective emphasises the analysis of processes that result in different geographic patterns, it provides a means for assessing how patterns might change in the future. Geography has become more familiar and more relevant to many people because emphasis has been placed on five fundamental themes as ways to structure geographic questions and to provide answers to those questions. These themes are location, place, interaction, movement and region.

- *Location* – learning the location and characteristics of other places is important in conducting business outside a local area. Of much greater significance is a business's location relative to features such as shipping routes as well as suppliers, market and competitors, among others.
- *Place* – in addition to its location, each place has a diverse set of characteristics. The characteristics of places, both natural such as presence of minerals and human such as skills, profoundly influence international economic transactions.
- *Interaction* – The way a place functions depends not only on the presence and form of certain characteristics but also on interactions between those characteristics. Interactions between different features change over time within places and, as they do, so do that place's character and its economic activities.
- *Movement* – Movement provides a structure for considering how different places relate to each other. International marketing exists because movement permits the transportation of people and goods and the communication of information and ideas between different places.
- *Region* – Regions provide alternative ways for organising groups of places in more meaningful ways. A region is a set of places that share certain characteristics. Regions can also be defined by patterns of movement. Regions increasingly need to be considered in international marketing.

The five themes are neither exclusive nor exhaustive; they complement other disciplinary approaches for organising information.

According to Cooper and Schindler (2008:5) geography is no longer a primary constraint. While the lowering of trade barriers has made the globalisation of markets

and production a theoretical possibility, technological change has made it a tangible reality. As new technology is developed, humans adapt to it, and this in turn leads to the demand for newer technology to satisfy additional needs that arise from the new technology (Burgess & Bothma, 2007:244; Hill, 2007:13). The impact of technological advances can be seen in all aspects of the marketing process. The ability to gather data on markets, management control capabilities and the practicalities of carrying out the business function internationally over the past few years has been revolutionised with the advancement of electronic communications. At the touch of a button information on the key factors that determine a company's business can be accessed. Competition is global and not just local, as products to satisfy a particular need can be obtained by the consumer from international providers. The faster the rate of technological development, the faster the rate the consumers' needs develop. This leads to the lifecycle of a product being significantly shortened. Continual innovation is thus required to ensure that the product offering of the business satisfies the demands of the consumer (Doole & Lowe, 2004:20, 21; Burgess & Bothma, 2007:247).

International firms and multinational enterprises in particular must however be aware and informed of the complex set of important international political and regulatory issues that exist and the role of international trade-related institutions in the international trade environment.

2.3.8 INTERNATIONAL TRADE INSTITUTIONS

Various organisations can affect international business operations. The most important organisations emanating from the United Nations are the International Monetary Fund (IMF), the World Bank, the United Nations Commission on Trade and Development (UNCTAD) and the World Trade Organization (WTO). The IMF's main activities include financial assistance, technical assistance and surveillance. The World Bank uses international financial markets to procure capital for national infrastructure developments, while UNCTAD is an authoritative knowledge-based organisation aiming to help shape policy debates on thinking and development (Burgess & Bothma, 2007:89, 90; Hill, 2007:8–10;).

In 1947, the General Agreement on Tariffs and Trade (GATT) was initiated with the purpose of reducing tariffs between countries, and international institutions such as

the World Bank and the IMF were created (Czinkota & Ronkainen, 2007:32–35). The WTO has its origins in the GATT, to which it became the successor organisation on 1 January 1995. As of May 2005, 148 nations that collectively accounted for 97% of world trade were WTO members. As of 23 July 2008, the WTO had increased its membership to 153 members (WTO, 2008). The creation of the WTO has greatly broadened the scope of international trade agreements. The major advantage that the WTO offers over GATT involves the resolution of disputes. Increasingly, the WTO may become an arena in which one country can challenge the values of another (Burgess & Bothma, 2007:88; Hill, 2007:8–10). The main aim of the WTO is to promote a free market international trade system. It promotes trade by (Doole & Lowe, 2004:48)

- working to reduce tariffs
- prohibiting import/export bans and quotas
- eliminating discrimination against foreign products and services
- eliminating other impediments to trade commonly known as non-tariff barriers.

In 2001, a new round of international trade negotiations was initiated. Since the agreement was reached in the city of Doha, Qatar, the negotiations are now called the Doha Round. The aim was to further hasten the implementation of liberalisation, particularly to help impoverished and developing nations (Czinkota & Ronkainen, 2007:32–34; Hill, 2007:227). The researcher, in his position at the National Association of Automobile Manufacturers of South Africa (NAAMSA), which is a member of Business Unity South Africa (BUSA), has participated in the National Economic Development and Labour Council (Nedlac) as a member of the non-agricultural market access (NAMA) task team.

A communication from BUSA (2008) summarises South Africa's position towards NAMA. Under the Uruguay Round South Africa was regarded as a developed country and had to make the required one-third cut in the bound rates of NAMA products. South Africa also increased its binding coverage from 16 to 97%. About 53% of the country's NAMA tariff lines have zero applied tariffs. It has therefore unilaterally opened up South Africa's market for imports under more than half of NAMA tariff lines. There are, however, some sectors in the country that are sensitive particularly in terms of employment with an unemployment rate of close to 30%. These sectors, including

textiles, clothing, footwear and automotive products, already experience high levels of import penetration, which is indicative of South Africa's open trade regime with no significant non-tariff barriers.

Under the NAMA modalities, the bound tariffs of all lines have to be cut. Therefore, although the country already has zero applied rates on 53% of lines, the bound rates of other, sensitive lines also have to be cut. Under the proposed coefficients for the Swiss Formula, the cuts in the South African bound rates will require that a high percentage of the applied rates of sensitive products will have to be cut by more than 30%. Although provision has been made for less than the full formula cut on a restricted number of lines, this still means that the applied rates of 21% of the country's tariff lines, those of sensitive products, will have to be cut by more than 30%. Thus, South Africa will only be able to partly accommodate these sensitive product groups under the provision for less than full formula cuts. Owing to the importance of the automotive sector, it is important for the sector to be accommodated under the flexibility provision, where less than the formula cuts will apply.

The Doha Round aimed to target agricultural products where high tariffs and trade-distorting subsidies apply. These measures had already been prohibited for industrial products under previous rounds. In the South African context, the demand is now for large tariff cuts on industrial products by a relatively small developing country with a high level of unemployment, in exchange for inadequate commitments on agriculture. In addition, tariff cuts by the developed nations will result in preference erosion and hence impact on the competitiveness afforded to South Africa under its current trade arrangements with the EU and the USA. In the case of the EU the import duty under the proposed NAMA modalities will reduce from 10% to 4,4% on passenger cars. South Africa is currently enjoying a duty-free access for passenger cars into the EU under the SA-EU free trade agreement compared to the 10% for other competitor countries.

According to Burgess and Bothma (2007:88, 89) South Africa's membership of the WTO, however, includes benefits such as tariff concessions made by any WTO member through the "most-favoured-nation" clause or non-discrimination principle and the "national treatment" clauses. According to the most-favoured-nation clause, any

WTO member country extending special trading advantages to another member must extend that advantage to all member countries. National treatment requires that once goods have entered a foreign market, they must be treated no less favourably than the equivalent domestically produced goods. South Africa also benefits from the flexibility of many WTO rules such as articles prohibiting quantitative restrictions and import quotas.

The impact of trade and investment in the international environment will be discussed next.

2.3.9 IMPACT OF TRADE AND INVESTMENT

In a macroeconomic sense, exports are important in terms of balancing the trade account. Exports are special because they can affect currency values and the fiscal and monetary policies of governments. Exports can also shape public perceptions of competitiveness and determine the level of imports a country can afford. When imports of products exceed exports a trade deficit results. One key way to reduce trade deficits is to increase exports. Increases in exports can become a major contributor to economic growth, especially when the domestic economy experiences a slowdown. Equally important, by exporting firms can achieve economies of scale. As a result the firm may achieve lower costs and higher profits both at home and abroad. By exporting the firm also benefits from market diversification. It can take advantage of different growth rates in different markets and gain stability by not being overly dependent on any particular market. Exporting also lets the firm learn from the competition, makes it sensitive to different demand structures and proves its ability to survive in a less familiar environment in spite of higher transaction costs. All these lessons can make the firm a stronger competitor at home (Czinkota & Ronkainen, 2007:39–41).

On the import side, firms become more exposed to new competition, which may offer new approaches, better processes, or better products and services. In order to maintain their market share, firms are forced to compete more effectively by improving their own products and activities. Consumers in turn receive more choices when it comes to their selection. The competitive pressures exerted by imports also work to keep quality high and prices low (ibid, 2007:39–41).

International marketing activities consist not only of trade but also of a spectrum of involvement, much of which results in international direct investment activities. Such investment activities can be important to a firm's success in new and growing markets. Many of these investments take place in the industrialised nations and are carried out by industrialised nations. Increasingly, however, there is a large stock of foreign direct investment in emerging markets. The motivation to shift labour-intensive manufacturing operations from their home markets to developing nations was lower labour costs. In addition, this shift is often used as a hedge against unfavourable currency movements and the imposition of trade barriers. To some extent these foreign investments substitute for trade activities. As a result, firms operating only in the domestic market may be surprised by the onslaught of foreign competition and, unprepared to respond quickly, may lose their domestic market share (Czinkota & Ronkainen, 2007:40, 41; Hill, 2007:19).

2.3.10 POLICY RESPONSES TO TRADE PROBLEMS

Burgess and Bothma (2007:130), Czinkota and Ronkainen (2007:41–45) and Hill (2007:228, 229) concur that one typical policy response to trade problems consists of voluntary import restraints that are applied selectively against trading partners. Voluntary restrictions are intended to help domestic industries to reorganise, restructure and recapture their trade performance of years past. If countries do not use the subtle mechanism of voluntary agreements, they often resort to old-fashioned tariffs. Tariffs are direct taxes and charges imposed on imports. They are generally simple, straightforward and easy for the country to administer. Whilst they are a barrier to trade, they are a visible and known quantity and so can be accounted for by companies when developing their marketing strategies. Tariffs are used by the poorer nations as the easiest means of collecting revenue. The trend towards the lowering of tariff barriers across the globe in recent years, together with the opening up of new markets to foreign investment, has greatly complicated the decision for many companies as to where to place manufacturing facilities. These trends have made global production much more possible, but it has also reduced the need for many overseas plants. The most common form of government intervention in the automotive industry, especially in developing countries, has been protection in the form of high tariffs and local content requirements. South Africa also pursued this route, as will be discussed in chapter 4.

The most common forms of tariffs are (Doole & Lowe, 2004:42–44; Burgess & Bothma, 2007:131–132):

- *Specific* – charges are imposed on particular products either by weight or volume and usually stated in the local currency.
- *Ad valorem* – a straight percentage of the import price.
- *Discriminatory* – the tariff is charged against goods coming from a particular country either where there is a trade imbalance or for political purposes.

Even though tariffs have been substantially reduced on average, their specific application can still have a major effect on trade flows.

Another major method by which trade has been restricted is through non-tariff barriers. A non-tariff barrier is any measure other than a tariff that is a deterrent or obstacle to the sale of products in a foreign market. Typically, these barriers are much more subtle than tariffs. Non-tariff barriers can take many different forms such as customs entry procedures, quantitative restrictions such as quotas and increased government participation in trade and financial controls. The direct costs of these actions are hidden. Yet, these costs are burdensome and directly affect the competitiveness of firms (Doole & Lowe, 2004:44, 45; Burgess & Bothma, 2007:132, 133; Czinkota & Ronkainen, 2007:41–45; Hill, 2007:204).

Inputs from respondents regarding the impact of tariff and non-tariff barriers as factors of constraint on market access into foreign markets for South African manufactured light vehicles will be obtained via the empirical survey forming part of this study.

Many countries also provide export promotion assistance for their firms. Key reasons for such assistance are the national need to earn foreign currency, the encouragement of domestic employment and the increase in domestic economic activity (Czinkota & Ronkainen, 2007:45).

2.3.11 TRADE AND INVESTMENT POLICIES

In the last decade up to 2007, the globalisation of production and markets has had many consequences. World trade has grown faster than world output, foreign direct investment has surged, imports have penetrated more deeply into the world's

industrial nations and competitive pressures have increased. All countries have international trade and investment policies. The importance and visibility of these policies have grown dramatically as international trade and investment flows have become more relevant to the well-being of most nations. It is also necessary to achieve a new perspective on government–business relations. This collaboration is seen as one key to enhanced competitiveness. Trade and investment policy can take either a multilateral or a bilateral approach. Bilateral negotiations are carried out mainly between two nations, while multilateral negotiations are carried out among a number of nations. The approach can also be broad, covering a wide variety of products, services or investments, or it can be narrow in that if focuses on specific problems. To be successful on a global scale, however, negotiations need to produce winners. Policymakers must be willing to trade off short-term achievements for long-term goals (Czinkota & Ronkainen, 2007:46, 47; Hill 2007:35).

Inputs from respondents regarding the impact of South Africa's trade arrangements in generating export business for the South African OEMs will be obtained via the empirical survey forming part of this study.

In the context of the international marketing environment the social and cultural environment will be discussed next.

2.3.12 SOCIAL AND CULTURAL ENVIRONMENT

According to Hill (2007:92) a society is a group of people that share a common set of values and norms, that is, people who are bound together by a common culture. Doole and Lowe (2004:8, 66) state that social and cultural forces are often linked together and that differences in social conditions, religions and material culture all affect consumers' perceptions and patterns of buying behaviour.

In order to understand and influence consumers' wants and needs, one must understand their culture. According to Cooper and Schindler (2008:178) culture is a primary determinant of perception. Cultural understanding is thus necessary when international marketers interact with foreign competitors, distributors, suppliers and government officials (Gillespie et al., 2004:48, 49). An approach based on the premise of standardisation could be a mistake as overseas success is very much a function of

cultural adaptability. Cultural diversity must be recognised as a positive benefit as differences may actually suggest better solutions to challenges shared across borders (Czinkota & Ronkainen, 2007:54–56).

2.3.12.1 Culture defined

According to Czinkota and Ronkainen (2007:54) culture includes everything that a group thinks, says, does and makes. Doole and Lowe (2004:66, 67) state that, in relation to international marketing, culture can be defined as the sum total of learned beliefs, values and customs that serve to direct consumer behaviour in a particular country market.

Burgess and Bothma (2007:167) identify four levels of culture, which are individual behaviour, firm culture, industry culture and national culture. Cultural differences and especially language differences have a significant impact on the way a product may be used in the market, its brand name and the advertising campaign. There are, however, visible signs that social and cultural differences are becoming less of a barrier and this has led to the emergence of a number of world brands (Doole & Lowe, 2004:8, 9).

2.3.12.2 Elements of culture

The study of culture has led to the development of generalisations that apply to different cultures. These generalisations are commonly referred to as elements of culture (Burgess & Bothma, 2007:168). The main elements of culture are both material and abstract and include language, religion, values and attitudes, manners and customs, material elements, aesthetics, education and social institutions, all of which will be discussed next (Gillespie et al., 2004:49; Burgess & Bothma, 2007:168).

- *Language* – One obvious way in which countries differ is language. Language means both the spoken and unspoken means of communication. Language is one of the defining characteristics of a culture (Hill, 2007:109). In each of its foreign markets, the company must communicate with several audiences, namely its workers, managers, customers, suppliers and the government (Terpstra & Sarathy, 2000:97).

- *Religion* – Religion has an impact on international marketing which is seen in a culture's values and attitudes toward entrepreneurship, consumption and social organisation (Burgess & Bothma, 2007:171, 172; Czinkota & Ronkainen, 2007:59–62). A firm's advertising, packaging and personal selling practices especially need to take local religious sensitivities into account (Terpstra & Sarathy, 2000:108).
- *Values and attitudes* – Values are shared beliefs or group norms that have been internalised by individuals, while attitudes are evaluations of alternatives based on these values. Attitudes and values help determine what one thinks is right or appropriate, what is important, and what is desirable. The more rooted values and attitudes are in central beliefs the more cautiously the international marketing approach should proceed (Czinkota & Ronkainen, 2007:62, 63).
- *Manners and customs* – Understanding manners and customs is especially important in negotiations, because interpretations based on one's own frame of reference may lead to a totally incorrect conclusion. To negotiate effectively abroad, one needs to read all types of communication correctly (Burgess & Bothma, 2007:171).
- *Material culture* – Material culture is the result of a society's exposure to technology. Material culture is visible in a society's economic, social, financial and marketing infrastructure (Terpstra & Sarathy, 2000:91, 92). Technology and material culture, mainly the degree to which it exists and how much it is esteemed, will have an impact on marketing decisions (Burgess & Bothma, 2007:168, 169; Czinkota & Ronkainen, 2007:65–67).
- *Aesthetics* – Aesthetics hold some implications for international business. In the design of its plant, product or package, the firm should be sensitive to local aesthetic preferences and try to appeal to those tastes. The significance of different colours can vary from culture to culture (Czinkota & Ronkainen, 2007:67). The choice of brand names is also affected by culture. Frequently, the best brand name is one in the local language, pleasing to local taste (Terpstra & Sarathy, 2000:99, 100).
- *Education* – Formal education plays a key role in a society, as it is the medium through which individuals learn many of the language, conceptual and mathematical skills that are indispensable in a modern society (Hill,

2007:110). Differences in literacy and consumer skills, as a result of a country's educational system, determine what kinds of adaptation in products and in marketing communications are necessary (Terpstra & Sarathy, 2000:100, 113; Burgess & Bothma, 2007:171).

- *Social organisations and institutions* – Social organisation relates to the way in which a society organises itself and the way people relate to each other; the way the culture considers kinship, social institutions, interest groups and status systems. All may influence a marketing programme (Terpstra & Sarathy, 2000:110, 114; Doole & Lowe, 2004:68; Burgess & Bothma, 2007:169).
- *Law and politics* – The legal and political environments in a foreign market are often seen as consequences of the cultural traditions of that market. Legal and political systems are often a simple codification of the norms and behaviour deemed acceptable by the local culture (Doole & Lowe, 2004:68).

2.3.12.3 Making culture work for marketing success

Culture should not be viewed as a challenge but as an opportunity that can be exploited. This requires an understanding of differences and their fundamental determinants. Czinkota and Ronkainen (2007:78, 79) summarise the following rules for the way culture and its appreciation may serve as a tool for ensuring marketing success.

- *Embrace local culture* – Showing sensitivity to local customs helps local acceptance and builds employee morale.
- *Build relationships* – Each market has its own unique set of constituents that need to be identified and nurtured.
- *Employ locals to gain cultural knowledge* – The single best way to understand a market is to grow with it by developing human resources and business partnerships along the way.
- *Help employees understand you* – Employing locals will provide a valuable asset in market development.
- *Adapt products and processes to local markets* – Nowhere is a company's commitment to local markets as evident as in its product offering.

- *Coordinate by region* – The transfer of best practice is critical, especially in areas that have cultural similarities.

Culture is one of the most challenging elements of the international marketplace. A factual and interpretive knowledge of culture is required to cope in the international environment. Factual knowledge can be learned while interpretation comes only through experience, which requires patience.

The economic environment will be discussed next.

2.3.13 THE ECONOMIC ENVIRONMENT

The global economic environment surrounds the domestic economic environment of a firm. In an increasingly global world, a country can no longer function in isolation as a firm's domestic economy is influenced by the changes taking place in the global economic environment (Burgess & Bothma, 2007:203; Czinkota & Ronkainen, 2007:84–88). Determining the market size not only relates to present markets but also to potential markets. This helps allocate effort among present markets and determine which markets to enter next (Terpstra & Sarathy, 2000:64).

Firms need to be aware of the economic policies of countries and the direction in which a particular market is developing economically. This is necessary to make an assessment as to whether they can profitably satisfy market demand and compete with firms already in the market. Another key challenge facing companies is the question of how they can develop an integrated strategy across a number of international markets when there are divergent levels of economic development. Such disparities often make it difficult to have a cohesive strategy, certainly in pricing. Purchasing power across nations is diverse. The developed economies of the North American Free Trade Area (NAFTA), the European Union (EU) and Japan account for about 80% of world trade. For many firms this constitutes much of what is termed the global market. However, emerging markets are becoming more economically powerful. In emerging markets, there is an evolving pattern of government-directed economic reforms, lowering of restrictions of foreign investment and increasing privatisation of state-owned monopolies. These developments herald significant opportunities for the international marketing firm (Doole & Lowe, 2004:13–16).

2.3.13.1 Market dimensions

The main dimensions of a market can be captured by considering variables such as those relating to population and its various characteristics, foreign involvement in the economy, infrastructure and the physical endowment of the environment.

Population

The number of people in a particular market provides one of the most basic indicators of market size and is, in itself, indicative of the potential demand for certain products. The population figures should also be classified in ways that show the relevant segments of the market, such as age groups, gender, education and occupation, among others (Terpstra & Sarathy, 2000:65; Burgess & Bothma, 2007:211, 212). Characteristics of population include income, consumption patterns, inflation and currency.

- *Income* – Markets require not only people but also purchasing power, which is a function of income, prices, savings and credit availability. Income is the most indicative of the market potential for most consumer and industrial products and services. A lack of income in a market may preclude the marketing of a standardised product but, at the same time, provide an opportunity for an adjusted product (Burgess & Bothma, 2007:209; Czinkota & Ronkainen, 2007:90–93; Hill, 2007:348, 249;).
- *Consumption patterns* – Depending on the sophistication of a country's data collection systems, economic data on consumption patterns can be obtained and analysed. Some generalisations about consumer spending patterns are useful when precise data is not available. To continue growing, many companies are looking at developing nations because of the potential they see in 10 to 15 years ahead (Czinkota & Ronkainen, 2007:93–96).
- *Inflation* – Inflation is the term used to describe a general increase in the prices of goods over a period of time. Inflation complicates the marketing task and its incidence varies, generally being much higher in developing countries. High rates of inflation influence the way the firm moves funds and goods between its various markets (Terpstra & Sarathy, 2000:81, 82; Burgess & Bothma, 2007:210).
- *Currency* – A ratio that measures the value of one currency in terms of another currency is called an exchange rate. When a currency rises in

value against another currency, it appreciates, and when it falls, it depreciates. The strength of a domestic currency against the currency of the country's trading partners can have a negative effect on exporters but positive for importers who now pay less. Exchange rates are among the most closely watched and politically sensitive economic variables (Flassbeck, 2001:39; Burgess & Bothma, 2007:211; Hill, 2007:338).

Role of government

Governments, through the addition or removal of legislative or regulatory constraints, can present major strategic threats and/or opportunities. The role of government as regulator, customer and partner is another variable affecting the firm's marketing in a country. Foreign investment in an economy provides an indication of the government's attitude toward foreign companies. It helps to determine the extent of the competitive environment the firm will encounter (Terpstra & Sarathy, 2000:82).

Infrastructure

A good indicator of economic development is the level of infrastructure development in a country. Infrastructure includes paved roads, communications networks, railroads, energy supply, air and sea transportation and other basic services. The careful assessment of infrastructure spells out important marketing opportunities (Czinkota & Ronkainen, 2007:96–100).

Physical endowment

A country's physical endowment affects the nature of its economy and refers to the natural environment that exists in a country. A country's natural resources are one indicator of its economic potential and raw material availability, while its topography helps determine physical distribution and market accessibility. The climate of a country influences the kind of products offered and the kind of packaging needed. All the elements of the physical environment need to be considered by the international marketer when entering an international market (Terpstra & Sarathy, 2000:84; Burgess & Bothma, 2007:237).

2.3.13.2 Regional economic integration

Globalisation has a strong regional integration dimension which influences the international trade environment and, more specifically, international trade flows. Regionalism, or economic cooperation within regions, is an attempt by nations to attain goals they cannot achieve in isolation (Terpstra & Sarathy, 2000:51; Burgess & Bothma, 2007:91). The reason for countries engaging in economic cooperation is to use their respective resources more effectively and to provide larger markets for member-country producers. These economic integration efforts have the effect of dividing the world into trading blocs (Czinkota & Ronkainen, 2007:101).

The nature of market association ranges from limited trade cooperation to a full-blown political union. At the lower level of association, agreements can be purely for economic cooperation in some form. At the next level of cooperation, there will be the development of trade agreements between countries on either a bilateral or multilateral basis (Doole & Lowe, 2004:49). Levels of economic integration include free trade areas, customs unions, common markets, economic unions and political unions.

Free trade area

The free trade area is the least restrictive and loosest form of economic integration among nations. In a free trade area, all barriers to trade among member countries are removed and goods and services are freely traded among member countries. No discriminatory taxes, quotas, tariffs or other barriers are allowed. A notable feature of free trade areas is that each member country continues to set its own policies in relation to non-members. This means that each member is free to set any tariffs or other restrictions that it chooses on trade with countries outside the free trade area. Among such arrangements are the European Free Trade Area (EFTA) and the North American Free Trade Area (NAFTA) (Burgess & Bothma, 2007:91; Czinkota & Ronkainen, 2007:101–104).

In the case of South Africa, the Southern African Development Community (SADC) Trade Protocol was signed in 1996 and implemented in 2000. This was aimed at progressively establishing a SADC free trade area, which was launched on 17 August 2008 (BUSA, 2008). The aim is for the agreement to encourage economies of scale,

creating competitive SADC-wide industries, thereby increasing intra-regional trade and enhancing foreign investment in the region. The key policy objective is to strengthen trade and development linkages between South Africa and other SADC countries. To date, all signatories, except for Zimbabwe, have translated their commitments into domestic enabling legislation. By 2012, about 98% of SADC merchandise trade will be subject to zero tariffs. The aim in the future is to convert the free trade area to a customs union (AIEC, 2008:36). However, in terms of the South African automotive industry SADC represents a very small regional grouping as far as economies of scale are concerned. There is no vehicle manufacturing in the region other than in South Africa. Since vehicle demand is highly income elastic, relatively limited opportunities exist for South African manufactured light vehicle exports to the region at the moment, owing to cheap used vehicle imports, most notably from Asian countries. However, this could improve over time based on concerted efforts to expand exports.

Customs union

The customs union is one step further along the spectrum of economic integration. As in the free trade area, members of the customs union dismantle barriers to trade in goods and services among members. In addition, however, the customs union establishes a common trade policy with respect to non-members. Typically, this takes the form of a uniform or common external tariff, whereby imports from non-members are subject to the same tariff when sold to any member country. The South African Customs Union (SACU) is the oldest and most successful example of economic integration (Burgess & Bothma, 2007:92; Czinkota & Ronkainen, 2007:104; Hill, 2007:293).

Common market

A true common market includes a customs union but goes significantly beyond it because it seeks to standardise or harmonise all government regulations affecting trade. These include all aspects of government policy that pertain to business, such as corporation and excise taxes, labour laws, fringe benefits and social security programmes, incorporation laws and antitrust laws. In such an economic union, business and trade decisions would be unaffected by the national laws of different members because they would be uniform (Terpstra & Sarathy, 2000:53, 54). In addition, factors of production, namely labour, capital and technology are mobile

among members. Restrictions on immigration and cross-border investment are abolished. The importance of factor mobility for economic growth cannot be overstated (Doole & Lowe, 2004:51; Czinkota & Ronkainen, 2007:104; Hill, 2007:293).

Economic union

The creation of a true economic union requires the integration of economic policies in addition to the free movement of goods, services and factors of production across borders. Under an economic union, members will harmonise monetary policies, taxation and government spending. In addition members use a common currency. Clearly, the formation of an economic union requires members to surrender a large measure of their national sovereignty to supranational authorities in community-wide institutions, such as the European Parliament. The most important implication of the freedom of movement for products, services, people and capital within the EU is the economic growth that is expected to result. Economic growth will be spurred by economies of scale that will be achieved when production facilities become more concentrated. The enlargement of the EU has important implications for firms within and outside Europe because it poses threats and opportunities, benefits and costs. There will be substantial benefits for those firms already operating in Europe, as these firms will gain because their operations in one country can now be freely expanded into others and their products may be freely sold across borders. Access to more consumers and economies-of-scale benefits in production and marketing will also result. For non-members many multinationals are developing pan-European strategies to exploit the situation, that is, they are standardising their products and processes to the greatest extent possible without compromising local input and implementation (Burgess & Bothma, 2007:92; Czinkota & Ronkainen, 2007:104–107; Hill, 2007:294).

Political union

The political union is the ultimate market agreement among nations. It includes the characteristics of an economic union and requires, additionally, political harmony amongst the members. Essentially, it means nations merging to form a new political entity. A political union integration no longer exists anywhere in the world. The Soviet Union, which has now disintegrated, was an example of a political union (Doole & Lowe, 2004:51; Burgess & Bothma, 2007:92; Hill, 2007:294).

Economic integration in the world economy presents unique opportunities and challenges. Eliminating barriers between member markets and erecting new ones vis-à-vis non-members will call for adjustments to past strategies to fully exploit the new situations.

The next section will discuss the international political-legal environment.

2.3.14 THE INTERNATIONAL POLITICAL-LEGAL ENVIRONMENT

Politics has come to be recognised as the major factor in many international business decisions, especially in terms of whether to invest and how to develop markets. The government plays the principal role in host countries in initiating and implementing policies regarding the operation, conduct and ownership of businesses (Gillespie et al., 2004:84). Political risk is defined as being a risk resulting from a sudden or gradual change in a local political environment that is disadvantageous or counter-productive to foreign firms and markets. The types of action that governments may take that constitute potential political risks to firms fall into three main areas (Doole & Lowe, 2004:17–20):

- *Operational restrictions* – these could be exchange controls, employment policies, insistence on local shared ownership and particular product requirements.
- *Discriminatory restrictions* – these tend to be imposed on purely foreign and, sometimes, only firms from a particular country. They tend to include such things as special taxes and tariffs, compulsory subcontracting and loss of financial freedom.
- *Physical actions* – these actions are direct government interventions such as confiscation without any payment of indemnity, a forced takeover by the government, expropriation, nationalisation or even damage to property or personnel through riots and war.

However, recent trends in trade agreements, privatisation and market reforms seem to indicate a move towards the removal of trade impediments (Doole & Lowe, 2004:17–20).

Where more dramatic and unpredictable changes are called political risk, more moderate and predictable changes are called regulatory changes. Four strategic options for a company to consider when faced with regulatory change (Gillespie et al., 2004:99–101) include the following:

- *Alter* – the company can bargain to get government to alter its policy or actions.
- *Avoid* – the company can make strategic moves that bypass the impact of a government's action.
- *Accede* – the company can adjust its operations to comply with a government requirement.
- *Ally* – the company can attempt to avoid some risks of government actions by seeking strategic alliances.

Contingency planning enables marketing managers to avoid crises and to make deliberate and careful decisions about what strategy would be appropriate to employ in the face of regulatory change (Gillespie et al., 2004:99–101).

The legal system of a country refers to the rules or laws that regulate behaviour along with the process by which the laws are enforced and through which redress for grievances is obtained. The legal system of a country is of immense importance to international business. A country's laws regulate business practice, define the manner in which business transactions are to be carried out, and set down the rights and obligations of those involved in business transactions (Hill, 2007:50). Legal systems vary both in content and interpretation. A company is not just bound by the laws of its home country but also by those of its host country and by the growing body of international laws. The legal environment in international marketing is more complicated than in domestic marketing since it has three dimensions (Doole & Lowe, 2004: 10–13; Burgess & Bothma, 2007:187–189):

- *National or domestic law* – refers to the set of rules devised for, and applicable to, a particular country.
- *International law* – refers to a set of rules which governs the relationships between countries and the operation of international organisations. These laws can affect the organisation's activity and include laws covering piracy and international conventions and agreements.

- *Domestic laws in the firm's home base* – these laws are important for two reasons. Firstly, there are often export controls which limit the free export of certain goods and services to particular marketplaces, and secondly, there is the duty of the organisation to act and abide by its national laws in all its activities whether domestic or international.

Laws will affect the marketing mix in terms of products, price, distribution and promotional activities quite significantly.

In making decisions about the firm's international marketing activities, three areas, which will be discussed next, require attention:

- the political and legal circumstances of the home country
- the political and legal circumstances of the host country
- the international environment – bilateral and multilateral agreements, treaties, and laws governing the relations between host and home countries.

2.3.14.1 Home country political and legal environment

The home country political environment refers to any political developments in the country in which the business is based. The firm's home-country political environment can constrain its international operations as well as its domestic operations and can limit the countries that the international firm may enter. A firm must also know the legal environment in each market because these laws constitute the rules of the game (Terpstra & Sarathy, 2000:125, 126; Burgess & Bothma, 2007:220). A government may work to reduce trade barriers or to increase trade opportunities through bilateral and multilateral negotiations. However, governments may also have specific rules and regulations restricting international marketing such as embargoes or trade sanctions, export controls, import controls and the regulation of international business behaviour such as boycotts (Hill, 2007:56–59).

2.3.14.2 Host country political and legal environment

The host country political environment refers to any political developments in the country in which the business has invested. By definition, the international firm is a

foreigner in all of its markets abroad. The host country environment, both political and legal, affects the international marketing operations of firms in a variety of ways. Governments are especially inclined to use direct or indirect subsidies to encourage firms that will be major exporters, as exporters bring multiple benefits, providing employment and increasing national revenue through exports. WTO agreements outlaw direct export subsidies but usually do not prohibit indirect subsidies (Gillespie et al., 2004:91; Burgess & Bothma, 2007:220). To prevent undesirable behaviour, governments use a variety of the following tools (Terpstra & Sarathy, 2000:120, 121; Burgess & Bothma, 2007:223–25):

- *Entry restrictions* – governments may not allow 100% ownership but may require firms to enter a joint venture with a national firm.
- *Price controls* – one of the most common restrictions which, in inflationary economies, can severely limit profitability.
- *Quotas and tariffs* – may limit a firm's ability to import, forcing a higher level of local procurement than it may want.
- *Exchange control* – foreign firms may have difficulty getting foreign exchange for needed imports or profit repatriation.
- *Expropriation* – defined as the official seizure of foreign property.

The enforcement of laws may have a different effect on national and on foreign firms. One option for firms is to provide input to trade negotiators to resolve matters in bilateral and multilateral negotiations (Czinkota & Ronkainen, 2007:138).

In addition to the politics and laws of both the home and host countries, the overall international political and legal environment must also be considered, as relations between countries can have a profound impact on firms trying to do business internationally.

2.3.14.3 International political environment

The international political environment involves political relations between two or more countries (Terpstra & Sarathy, 2000:128).

The effect of politics on international marketing is determined by both the bilateral political relations between the home and host countries and the multinational agreements governing the relations between groups of countries. If bilateral political relations between countries improve, business can benefit (Czinkota & Ronkainen, 2007:142, 143).

International law plays an important role in the conduct of international business. The WTO defines internationally acceptable economic practices for its member nations. Although this does not directly affect individual firms, it does influence them indirectly by providing a more stable and predictable international market environment. A number of efforts have been made to simplify the legal aspects of business procedures such as registering of patents via multilateral simplification, to avoid registering it in each country, similarly with trademarks (ibid, 2007:143).

The political and legal environment in the home country, the environment in the host country, and the laws and agreements governing relations between nations are all important to international marketing activities. Compliance with them is mandatory in order to do business abroad successfully. The risk of doing business in a country tends to be greater in countries that are politically unstable, subject to economic mismanagement and lacking a legal system to provide adequate safeguards. Firms should be aware of political influences and laws and strive to adopt them as far as possible.

2.3.15 Concluding remarks on the international marketing environment

Since the late 1970s, governments on every continent have allowed the winds of global competition to blow through their economies. As policymakers have lowered tariff barriers and permitted foreign investments, multinational companies have rushed into those countries. These multinational companies possessed state-of-the-art technologies and products, enormous financial resources, powerful brands and the world's best management talent and systems. In a study conducted by Bhattacharya and Michael (2008:85–95) over three years up to 2008, including 50 companies in 10 developing countries, it was found that the home-grown companies that have staved off challenges from multinational companies in their core businesses have become market leaders and have often seized new opportunities before foreign players could.

The following six common elements were found in local companies that have been successful in developing countries:

- *Create customised products or services* – the local companies possess a deep understanding of the consumers' preferences and the structures of the raw materials, components and finished goods in which they operate in their home markets. The local companies are thus able to develop tailored offerings and learn to create a large variety of products or services cost-effectively.
- *Develop business models to overcome key obstacles* – smart local companies are adept with innovative strategies to overcome roadblocks, including a lack of distribution channels or the existence of infrastructural hurdles, and yield competitive advantages in the process.
- *Deploy the latest technologies* – local companies turn globalisation to their advantage by developing or buying the latest technologies. New technologies keep operating costs low and enable companies to deliver good quality products and services.
- *Take advantage of low-cost labour and train staff in-house* – local companies find innovative ways to benefit from low-cost labour pools and to overcome shortages of skilled talents.
- *Scale up quickly* – local companies go national as soon as possible to obtain economies-of-scale benefits and to prevent other local or regional rivals from challenging them.
- *Invest in talent to sustain rapid growth* – local companies possess management skills and talent that multinational companies often underestimate.

Smart local companies have used the benefits of globalisation to close gaps in technology, capital and talent with their rivals from the developed world. The winner companies are those with the ability to pursue several, or often all, of the six elements simultaneously and to execute them well. South African-owned automotive component suppliers could well adopt the approach described above to play a bigger role in the automotive supply chain.

2.4 INTERNATIONAL MARKET ENTRY AND DEVELOPMENT

If a company is to survive in a highly risky and complex international marketplace, marketing research is fundamentally important to assist in reducing the risk and ensuring a starting point for decision making based on knowledge rather than guesswork (Doole & Lowe, 2004:99).

Global strategic planning, building the knowledge base and market entry and development will be discussed next.

2.4.1 GLOBAL STRATEGIC PLANNING

Even the biggest companies in the biggest home markets cannot survive on domestic sales alone. According to Czinkota and Ronkainen (2007:189) the big companies have to be in all major markets to survive the shakeouts expected to reduce industries to three to five major players per industry during the early part of the twenty-first century.

Globalisation reflects a business orientation based on the belief that the world is becoming more homogeneous and that distinctions between national markets are not only fading but, for some products, will eventually disappear. As a result, companies need to globalise their international strategy by formulating it across markets to take advantage of underlying market, cost, environmental and competitive factors. Globalisation can be seen as a result of a process that culminates in international market entry and expansion. As national markets become increasingly similar and scale economies become increasingly important, the inefficiencies of duplicating product development and manufacture in each country become more apparent. The pressure to leverage resources and coordinate activities across borders thus gains urgency. Similarly, the increasing number of customers operating globally, as well as the same or similar competitors faced throughout the major markets, adds to the need for strategy integration (Czinkota & Ronkainen, 2007:189, 190).

2.4.1.1 Globalisation drivers

The true nature of globalisation is encapsulated in the phrase “think global, act local” in which there is an acknowledgement of the need to balance standardisation and

adaptation according to the particular situation. The challenge facing firms with aspirations to become truly effective global players appears to be turning widespread international presence into a global competitive advantage. The critical success factor in achieving this is to offer added value for global customers by providing them with benefits that are significantly better than those provided by the competitors, particularly local competitors. The largest, most complex companies in the world use a combination of multi-domestic, regional and global strategies (Doole & Lowe, 2004:180–190).

The favourable conditions for the development of strategy and resource allocation on a global basis will be created by both external and internal factors. These factors can be divided into market, cost, environmental and competitive factors (Terpstra & Sarathy, 2000:154; Czinkota & Ronkainen, 2007:190):

- *Market factors* – include educational backgrounds, income levels, lifestyles, use of leisure time and aspirations.
- *Cost factors* – *a*voiding cost inefficiencies and duplication of effort are two of the most powerful globalisation drivers.
- *Environmental factors* – include government barriers and technological revolution.
- *Competitive factors* – to remain competitive the marketer may have to be the first to do something or be able to match or pre-empt competitors' moves.

It is important not only to identify key success factors but also to project and identify emerging key success factors.

2.4.1.2 The globalisation of competition

One of the implications of industrial activity becoming globally dispersed has been a shift in the sphere of competence of some developing countries. Intangible activities/functions such as design, R&D, branding, marketing, logistics and financial services have become concentrated in the developed countries. However, the process of production and the tangible activities in transforming goods have increasingly become contracted to developing countries (Kaplinsky & Morris, 2000:101).

In order to be successful in global markets, firms must not only understand their potential buyers but also learn to compete effectively against other firms from many different countries. Many local competitors, even those in less developed markets, have also built up popular brands that a foreign newcomer may find difficult to dislodge (Gillespie et al., 2004:146).

Most developing countries have embraced market liberalisation. Market liberalisation is the encouraging of competition where monopolies or strict entry controls previously existed. There are several reasons for this change in attitude toward competition in the emerging world. Some of the pressures to liberalise markets are external: many countries in the emerging world have joined the WTO and needed to remove barriers to imports in order to comply with WTO regulations. However, much of the pressure to liberalise is internal, as many governments are setting their sights on competing in export markets. By allowing more competition in the national market, local companies are forced to be more internationally competitive. Multinational corporations in particular, with their more sophisticated technology, more extensive financial resources and global market knowhow, are expected to help fuel export expansion (ibid, 2004:154, 155).

The country-of-origin effect is a significant one. A positive country-of-origin effect can help certain global competitors and even a strong global brand can have difficulty overcoming a negative country-of-origin bias. The issue of country-of-origin is further complicated in the case of multinational companies that produce products in various countries (ibid, 2004:161, 162).

2.4.1.3 The strategic planning process

Given the opportunities and challenges provided by the new realities of the marketplace, decision makers have to engage in strategic planning. This entails matching markets with products and other corporate resources more effectively and efficiently to strengthen the company's long-term competitive advantage. The assessment against environmental realities may mean a dramatic change in direction and approach (Czinkota & Ronkainen, 2007:195).

The starting point for global strategic planning is to understand that the underlying forces that determine business success are common to different countries that the firm competes in. Planning processes need to focus simultaneously across a broad range of markets. They also need to provide global marketers with tools to help balance risks and resource requirements, achieve competitive economies of scale, and ensure profitability to gain stronger long-term positions. On the demand side, this requires an understanding of the common features of customer requirements and choice factors. In terms of competition, the key is to understand the structure of the global industry in order to identify the forces that will drive competition and determine profitability (ibid, 2007:195).

There can be several possible motives behind a company's decision to compete in foreign markets, which include the following (Gillespie et al., 2004:198–201):

- *Opportunistic expansion* – responding to unsolicited orders.
- *Pursuing potential abroad* – maximising the domestic market and then deliberately reaching out for more potential abroad.
- *Following customers abroad* – for a company whose business is concentrated on a few large customers, the decision to internationalise is usually made when one of its key customers moves abroad to pursue international opportunities.
- *Exploiting different market growth rates* – a company based in a low-growth country may suffer a competitive disadvantage and may want to expand into faster-growing countries to take advantage of such growth opportunities.
- *Globalising for defensive reasons* – when a domestic company sees its markets invaded by foreign firms, that company may react by entering the foreign competitor's home market in return.
- *Born global* – some newer firms are jumping into global markets without going through the various stages of development and are termed "born global".

Organisational resources have to be used as a reality check for any strategic choice in that they determine a company's capacity for establishing and sustaining a competitive advantage within global markets (Czinkota & Ronkainen, 2007:196).

In order to create the competitive advantage necessary to achieve growth firms should adopt one of the following three generic competitive strategies (Doole & Lowe, 2004:159,160; Kumar, 2006:104–112; Czinkota & Ronkainen, 2007:196, 197):

- *Focus strategy* is defined by its emphasis on a single or narrow industry segment(s) within which the orientation may be toward either low cost or differentiation.
- In *cost leadership*, the global marketer offers an identical product or service at a lower cost than the competition. The cost leadership strategy has been typically adopted by companies that are located in countries with lower labour costs and develop business usually as a component or service provider. Alternatively, changes in currency exchange rates or other instability in the economic climate can result in newer, lower-priced competitors emerging.
- *Differentiation*, whether industry-wide or focused on a single segment, is achieved by emphasising particular benefits in the product, service or marketing mix that customers think are important and a significant improvement over competitive offers.

Most global marketers combine high differentiation with cost containment to enter markets and to expand their market shares (Czinkota & Ronkainen, 2007:197).

A global market strategy does not imply that a company should serve the entire globe. Critical choices relate to the allocation of a company's resources between different countries and segments. The usual approach is first to start with regions and then split the analysis further by country. In choosing country markets, a company must make decisions beyond those relating to market attractiveness and company position. A market expansion policy will determine the allocation of resources among various markets. The basic alternatives are concentration on a small number of markets and diversification, which is characterised by growth in a relatively large number of markets. The conventional wisdom of globalisation requires a presence in all the major triad markets of the world (Czinkota & Ronkainen, 2007:197–199).

Inputs from respondents regarding the focus of the South African-based OEMs on a few concentrated export markets versus multiple export markets will be obtained by means of the empirical survey that forms part of this study.

The first stage of the selection process is to use macro variables to discriminate between countries that represent basic opportunities and those that either offer little or no opportunity or involve excessive risk. Macro variables describe the total market in terms of economic, social, geographic and political information. The variables that are included reflect the potential market size and the market's acceptance of the product or similar products. The second stage of the screening process focuses on micro level considerations, such as competitors, ease of entry, cost of entry and profit potential. The focus of the screening process switches from total market size to profitability. The final stage of the screening process is an evaluation and rank-ordering of the potential countries on the basis of corporate resources, objectives and strategies (Gillespie et al., 2004:209).

Market growth in developing countries can sometimes be higher than in the triad, often as a result of higher population growth. Trade restrictions often force companies to build local factories in order to access the local market. With the present trend toward global trade liberalisation, many formerly closed countries have opened their borders to imports. This has encouraged many more firms to consider emerging markets (Gillespie et al., 2004:203, 204).

2.4.1.4 Regional strategies and segmentation

Regional strategies are marketing strategies deployed across a number of countries in close proximity. Grouping countries by region can often help to achieve both critical mass and economies of scale (Gillespie et al., 2004:220). Critical mass embodies the idea that a certain minimum amount of effort is necessary before any impact will be achieved. "Economies of scale" is a term used in production situations and means that greater levels of production result in lower costs per unit, which increases profitability (Gillespie et al., 2004:216, 217).

The effective use of segmentation, that is, the recognition that groups within markets differ sufficiently to warrant individual marketing mixes, allows global marketers to take

advantage of the benefits of standardisation such as economies of scale. The objective is to arrive at a grouping or groupings that are substantial enough to merit the segmentation effort (Gillespie et al., 2004:219, 220; Czinkota & Ronkainen, 2007:199–202).

According to Doole and Lowe (2004:107–110) marketing segmentation is the strategy by which a firm partitions a market into submarkets or segments likely to manifest similar responses to marketing inputs. The aim is to identify the markets on which a company can concentrate its resources and efforts so that it can achieve maximum penetration of that market. The Pareto law usually applies to international marketing strategies. This law states that the most broad-based and well-established international firms find that 20% of the countries they serve generate at least 80% of the results.

2.4.1.5 Global marketing programme development

Decisions need to be made in terms of how best to use the conditions set by globalisation drivers within the framework of competitive challenges and the resources of the firm. Marketing-related decisions will have to be made in four areas (Czinkota & Ronkainen, 2007:202):

- *The product offering* – Globalisation is not equal to standardisation except in the case of the core product or the technology used to produce the product. Product standardisation may result in significant cost savings upstream.
- *The marketing approach* – Uniformity is sought especially in elements that are strategic in nature such as positioning, whereas care is taken to localise necessary tactical elements such as distribution. This approach has been called glocalisation.
- *The location of value-adding activities* – Globalisation strives to reduce costs by pooling production or other activities or exploiting factor costs or capabilities within a system.
- *Competitive moves* – A company with a regional or global presence will not have to respond to competitive moves only in the market where it is being attacked. A competitor may be attacked in its profit sanctuary to drain its resources, or its position in its home market may be challenged. Cross-

subsidisation, or the use of resources accumulated in one part of the world to fight a competitive battle in another, may be the competitive advantage needed in the long term.

In truly global companies, very little decision making occurs that does not support the goal of treating the world as a single market. The planning for and execution of programmes take place on a worldwide basis (Czinkota & Ronkainen, 2007:206, 207). Knowledge is a key to achieving success, which will be discussed next.

2.4.2 BUILDING THE KNOWLEDGE BASE

As firms expand their international operations, the environmental complexities increase. Traditionally, marketing research has been charged with the following three broad areas of responsibility (Gillespie et al., 2004:170, 171):

- *Market studies* – to determine the size of the market and the needs of the potential customers.
- *Competitive studies* – to provide insights about competitors, both domestic and foreign.
- *Environmental studies* – timely inputs on various national environments, particularly the economic, political and legal contexts of potential markets.

Global marketing research is used to make both strategic and tactical decisions. Strategic decisions include deciding what markets to enter, how to enter them and where to locate production facilities. Tactical decisions are decisions about the specific marketing mix to be used in a country. Marketing research provides the information the firm needs to avoid the costly mistakes of poor strategies or lost opportunities and can guide product development for a foreign market. Companies also use research to position a product better in foreign markets (Gillespie et al., 2004:170, 171).

2.4.2.1 The role of marketing research

A recent definition states that marketing research is the systematic and objective identification, collection, analysis and dissemination of relevant information for the purpose of improving decision making related to the identification and solution of problems and opportunities in marketing (Czinkota & Ronkainen, 2007:244).

According to Cooper and Schindler (2008:87) the value of the research information may be judged in terms of the difference between the result of decisions made with the information and the result that would be made without it.

The cost and the speed weighed up against the reliability and objectivity of the collected data will determine the method of data collection. Primary data is new data. Shortcomings with primary data collection include the reluctance to respond and language and comprehension difficulties. Secondary data already exist and need to be scrutinised carefully as they do not address a specific research problem (Burgess & Bothma, 2007:282–289; Burns & Burns, 2008:49). Demand for products or services can be measured at two levels, namely aggregate demand for an entire market or country, and company demand as represented by actual sales. The former is generally termed “market potential”, whereas the latter is referred to as “sales potential” (Gillespie et al., 2004:181–183).

Results in the marketplace do not depend solely on researching buyer characteristics and meeting buyer needs. To a large extent, success in the marketplace is influenced by a firm’s understanding of and response to its competition (Gillespie et al., 2004:184–186). Rivalry among existing competitors takes many familiar forms. These include price discounting, new product introductions, advertising campaigns and service improvements. High rivalry limits the profitability of an industry (Porter, 2008:85).

There are approximately 200 countries in the world. For market development purposes international markets are scanned to identify countries that warrant further research and analysis. Countries need to meet the following three qualifying criteria (Doole & Lowe, 2004:101–103):

- *Accessibility* – Tariffs, non-tariff barriers, government regulation and import regulations need to be assessed. If a company is barred from entering the market, it would be an ineffective use of resources to take research further.
- *Profitability* – Factors that could render the market unprofitable need to be assessed. These include the availability of currency, the existence of exchange regulations, government subsidies for local competition, price controls and substitute products.

- *Market size* – An assessment is made of the potential market size to evaluate whether future investment is likely to bear fruit.

At the scanning stage the attempt is to identify countries where marketing opportunities exist.

Inputs from respondents regarding the most important criterion for selecting export destinations for South African manufactured light vehicles will be obtained using the empirical survey that forms part of this study.

With profitability in mind, companies use three fundamental approaches, usually combining at least two of them, to break into profitable markets: 1) they leverage existing assets by using what they already have, often supplementing their assets and resources with a partner, to overcome entry barriers; 2) they reconfigure value chains by changing the activities or sequence of activities the company performs to deliver value to customers; and 3) they establish niches by developing offerings with features that do not initially appeal to mainstream customers but attract customers in a fringe segment (Bryce & Dyer, 2007:87).

The nature of competition can be analysed in a broadly similar way, with three distinct product types (Doole & Lowe, 2004:101–103):

- *A competitive product* is one that has no significant advantages over those already on offer.
- *An improved product* is one that, whilst not unique, represents an improvement on those currently available.
- *A breakthrough product*, by way of contrast, represents an innovation and, as such, is likely to have significant competitive advantage.

It is clear that constraints of time, resources and expertise are the major inhibitors of international marketing research. Although international research, in many cases, is a complex, expensive and time-consuming task, the consequences of failing to research markets to the extent that it is really necessary are significant. A lack of market research could result in both missed opportunities and the failure to meet existing and developing market demand. Market entry and development will be discussed next.

2.4.3 MARKET ENTRY AND DEVELOPMENT

The internationalisation process differs enormously depending on whether the company is an adaptive exporter in first serving the domestic market and later develops into foreign markets, or is born global (Doole & Lowe, 2004:151, 152).

2.4.3.1 Motivations to internationalise

There are a variety of motivations for internationalising, which both push and pull firms along the international path. They are differentiated into proactive and reactive motivations. Proactive motivations represent stimuli to attempt strategic change, while reactive motivations influence firms that are responsive to environmental changes and adjust them by changing their activities over time. In other words, proactive firms go international because they want to, while reactive ones go international because they have to (Czinkota & Ronkainen, 2007:283).

Table 2.1 below summarises the proactive and reactive motivations for firms going international.

Table 2.1: Why firms go international

Proactive motivations	**Reactive motivations**
Profit advantage	Competitive pressures
Unique products	Overproduction
Technological advantage	Declining domestic sales
Exclusive information	Excess capacity
Managerial urge	Saturated domestic market
Tax benefit	Proximity to customers and ports
Economies of scale	Favourable currency movements
Foreign country regulations	Unsolicited order from overseas customers
The ability to modify products easily for export markets	Opportunity to increase the number of country markets and reduce the market-related risk

Source: Doole & Lowe, 2004:144; Czinkota & Ronkainen, 2007:283

The most stimulating proactive motivation to become involved in international marketing is the profit advantage. Tax benefits have historically played a major motivating role. Many countries offer tax concessions to their firms in order to

encourage export activities; however, the rules of the WTO prohibit the subsidy of exports by all but the poorest countries (Czinkota & Ronkainen, 2007:283).

2.4.3.2 Barriers to internationalisation

Many companies with export potential never become involved in international marketing. The biggest barriers to entry into export markets are seen to be a fear by these companies that their products are not marketable overseas. Some of the most important areas that non-exporters have identified as barriers to exporting are the following (Doole & Lowe, 2004:144, 145):

- red tape
- trade barriers
- transportation difficulties
- lack of trained personnel
- lack of export incentives
- lack of coordinated assistance
- unfavourable conditions overseas
- slow payment by buyers or payment defaults
- lack of competitive products
- language barriers

Experienced exporters tend not to highlight issues such as bureaucracy associated with international markets and trade barriers, which suggests that they have overcome the problems through managerial proactiveness.

For many firms, internationalisation is a gradual process. Firms in different stages are faced with different problems. Firms at an export awareness stage, that is, those partially interested in the international market, are primarily concerned with operational matters, which include information flow and the mechanics of carrying out international business transactions. Companies that have already had some exposure to international markets begin to think about tactical marketing issues such as communication and sales effort. Finally, firms that have reached the export adaptation phase are mainly strategy and service oriented. Hence, they are concerned about

longer-term issues such as service delivery and regulatory changes (Czinkota & Ronkainen, 2007:282, 283).

For many firms, exporting is the first significant stage in the internationalisation process as it provides the advantage of considerably expanded market potential. Exporting is usually the easiest way to enter a market (Doole & Lowe, 2004:143; Burgess & Bothma, 2007:318). Few countries offer a large enough market to justify local production and exporting allows a company to manufacture its products for several markets centrally and thus achieve economies of scale. Through exports, a firm can realise more profits, lower its prices, or sometimes do both. A firm has two basic options for carrying out its export operations. Markets can be contacted through an intermediary located in the exporter's home country, an approach called "indirect exporting", or alternatively, markets can be reached directly or through an intermediary in the foreign market, an approach termed "direct exporting". Several types of intermediaries located in the domestic market are ready to assist a manufacturer in contacting international markets or buyers (Khannel & Papelu, 2006:67; Burgess & Bothma, 2007:318, 327; Czinkota & Ronkainen, 2007:283–285; Hill, 2007:538):

- *An export management company* (EMC) is a firm that handles all aspects of export operations under a contractual agreement. The EMC takes responsibility for the marketing research, patent protection, channel credit, and shipping and logistics, as well as for the actual marketing of products in a foreign market or markets. The advantages include 1) little or no investment required to enter the international marketplace; 2) no in-house personnel required; and 3) offering an established network of sales offices as well as international marketing and distribution knowledge. The main disadvantage is that the manufacturer gives up direct control of the international sales and marketing effort.
- *Export agents* are individuals or firms that assist manufacturers in exporting. They are similar to EMCs, except that they tend to provide more limited services and focus on one country or one part of the world. The advantage of using an export agent is that the manufacturer does not need to have an export manager to handle all the documentation and shipping tasks. The main disadvantage is the export agent's limited market coverage.

In direct exporting no domestic intermediary is involved. A direct exporting operation requires more expertise, management time and financial resources than does indirect exporting, but it gives the company a greater degree of control over its distribution channels (Gillespie et al., 2004:229–231).

Inputs from the South African-based OEMs regarding the intermediaries used to sell their South African manufactured light vehicles into foreign markets will be obtained by means of the empirical survey that forms part of this study.

Research has found that firms that export grow faster, are more productive and, equally important, have employees who tend to earn more. Therefore, companies must prepare their activities and adjust to the needs and opportunities of international markets in order to become long-term participants (Czinkota & Ronkainen, 2007:282).

2.4.3.3 Licensing and franchising

In addition to exporting, licensing and franchising are alternatives open to and used by all types of firms. They offer flexibility in the international market approach, reflecting the needs of the firm and the circumstances in the market (Terpstra & Sarathy, 2000:282; Czinkota & Ronkainen, 2007:290).

Licensing

Under a licence agreement, one firm, the licensor, permits another, the licensee, to use its intellectual property in exchange for compensation designated as a royalty. The property might include patents, trademarks, copyrights, technology, technical knowhow or specific marketing skills. As an entry strategy, it may require neither capital nor knowledge and marketing strength in foreign markets. Licensing reduces the risk of exposure to government intervention and the licensee is typically a local company that can provide leverage against government action. Licensing offers a foreign entity the opportunity for immediate market entry with a proven concept. Disadvantages include that it may leave the international marketing functions to the licensee and the substantial dependence on the local licensee to produce revenues and thus royalties (Gillespie et al., 2004:233, 234; Burgess & Bothma, 2007:319; Czinkota & Ronkainen, 2007:291, 292; Hill, 2007:489).

Franchising

Franchising is a special form of licensing in which the franchiser makes a total marketing programme available, including the brand name, logo, products and method of operation. The franchise agreement is usually more comprehensive than a regular licensing agreement in as much as the total operation of the franchise is prescribed (Gillespie et al., 2004:235). A major form of franchising is manufacturer-retailer systems such as car dealerships. Reasons for the international expansion of franchise systems are market potential, financial gain and saturated domestic markets. One problem with franchising is the need for a great degree of standardisation without which the benefits of the transferred knowhow are lost (Czinkota & Ronkainen, 2007:293, 294; Hill, 2007:490, 491).

Firms do not become experienced globalists overnight but rather progress gradually through an international development process. This process is the result of different motivations to internationalise, the varying managerial and corporate characteristics of the firm, and the capability of the firm to overcome barriers (Czinkota & Ronkainen, 2007:287, 288). A further way to expand business is to invest in an enterprise abroad, which will be discussed next.

2.4.3.4 Foreign direct investment

Foreign direct investment occurs when a firm invests directly in facilities to produce and/or market a product in a foreign country (Hill, 2007:238). The international marketer makes foreign direct investments to create or expand a permanent interest in an enterprise. Foreign direct investment implies a degree of control over the enterprise. Through their investment, multinational corporations bring economic vitality and jobs to their host countries and often pay higher wages than the average domestically oriented firms. At the same time trade follows investment (Czinkota & Ronkainen, 2007:294; Hill, 2007:273, 274).

2.4.3.5 Product-market investment strategies

Strategic decisions involve products – which product lines to continue, which to add and which to eliminate. Businesses, including services, need to select markets in which they will have a competitive advantage. The focus should be dynamic as far as

growth is concerned. The following four product-market growth directions as identified by Aaker (2007:28–31) are summarised in Table 2.2:

Table 2.2: Product-market growth directions

	Present products	**New products**
Present markets	1 Market penetration	2 Product expansion
New markets	3 Market expansion	4 Diversification

Source: Aaker, 2007:28–31

1. Penetrate the existing product market by attracting customers from competitors.
2. Expand products in the current market.
3. Apply the same products in new markets.
4. Diversify into new product markets.

For each product market four investment options are possible. The firm could enter to grow, invest to hold the existing position, milk the business by avoiding any investment, or exit (Doole & Lowe, 2004:235).

Firms expand internationally for a variety of reasons including marketing factors, derived demand and government incentives (Czinkota & Ronkainen, 2007:296–298).

Marketing factors

Marketing considerations and the corporate desire for growth are major causes for the increase in foreign direct investment. Even large domestic markets present limitations to growth. Corporations therefore need to seek wider market access in order to maintain and increase their sales. This objective can be achieved most quickly through the acquisition of foreign firms. Through such expansion, the corporation also gains ownership advantages consisting of political knowhow and influence. Foreign direct investment permits corporations to circumvent current barriers to trade and operate abroad as a domestic firm, unaffected by duties, tariffs or other import restrictions. Another incentive is the cost factor, with corporations attempting to obtain low-cost resources and ensure their sources of supply. Finally, once the decision is made to invest internationally, the investment climate plays a major role. Corporations will seek to invest in those geographic areas where their investment is most protected

and has the best chance to flourish. However, the reasons why firms engage in foreign investment can change over time (Doole & Lowe, 2004:236; Gillespie et al., 2004:237; Czinkota & Ronkainen, 2007:296–298).

Derived demand

A second major cause for the increase in foreign direct investment is the result of derived demand, where demand abroad is the result of the move abroad by established customers. As large multinational firms move abroad, they are often interested in maintaining their established business relationships with other firms. Therefore, they frequently encourage their suppliers to follow them and continue to supply them from a foreign location. As a result, a few direct investments can gradually form an important investment preference for subsequent investment flows and even lead to centres of excellence. Often, suppliers invest abroad out of fear that their clients might find good sources abroad for the products or services they currently supply (Czinkota & Ronkainen, 2007:298).

Government incentives

A third major cause for the increase in foreign direct investment is government incentives. Governments are increasingly under pressure to provide jobs for their citizens. Over time, many have come to recognise that foreign direct investment can serve as a major means to increase employment and income. Increasingly, state and local governments are also participating in investment promotion activities. Government incentives are mainly of three types, namely fiscal, financial and non-financial.

- *Fiscal incentives* are specific tax measures designed to serve as an attraction to the foreign investor. They typically consist of special depreciation allowances, tax credits or rebates, special deductions for capital expenditures, tax holidays and other reductions of the tax burden on the investor.
- *Financial incentives* offer special funding for the investor by providing land or buildings, loans, loan guarantees or wage subsidies.
- *Non-financial incentives* can consist of guaranteed government purchases, special protection from competition through tariffs, import quotas and local content requirements, and investments in infrastructure facilities.

Incentives are designed primarily to attract more industry and create more jobs. By themselves, they are unlikely to spur an investment decision if proper market conditions do not exist (ibid, 2007:298).

In carrying out its foreign direct investment, a corporation has a wide variety of ownership choices, ranging from 100% ownership to minority interest. The different levels of ownership will result in varying degrees of flexibility for the corporation, a changing ability to control business plans and strategy, and differences in the level of risk assumed (ibid, 2007:300).

Full ownership

To make a rational decision about the extent of ownership, management must evaluate the extent to which control is important for the success of its international marketing activities. Often full ownership may be a desirable, but not a necessary, prerequisite for international success (Burgess & Bothma, 2007:323, 324; Czinkota & Ronkainen, 2007:300). Wholly owned operations involve marketing, assembly or full-scale integrated production, involve the greatest commitment to a foreign market and mean 100% ownership by the international firm. The firm either can set up a new operation in that country, often referred to as a "greenfield" venture, or it can acquire an established firm in that host nation and use that firm to promote its products (Hill, 2007:492, 493). Acquisitions are very popular and attractive because they allow quicker entry and an established market position. Often, the main reason is to take advantage of lower costs in a country, thus providing a better basis for competing with local firms or other foreign companies already present (Gillespie et al., 2004:246,247; Hill, 2007:492, 493).

Joint ventures

Under a joint venture arrangement, the foreign company invites an outside partner to share stock ownership in the new unit. Traditionally, the other partner has been a local firm or individual located in the host market. In this collaboration, the participating partners share assets, risks and profits and equality of the partners is not necessary. Contributions may consist of funds, technology, knowhow, sales organisations, or plant and equipment (Burgess & Bothma, 2007:323; Czinkota & Ronkainen, 2007:300). Joint ventures have the following advantages: more direct participation in

the local market, potentially greater returns from equity participation as opposed to royalties, greater control over production and marketing and better market feedback. Disadvantages include the fact that a local partner can become a liability (Gillespie et al., 2004:241,242; Hill, 2007:491,492).

Strategic alliances

Alliances encompass any relationship between firms that exceeds a simple sales transaction but stops short of a full-scale merger. Thus, the traditional joint venture and contract manufacturing or licensing agreement are forms of an alliance. Typically, strategic alliances involve technology development, production or distribution (Gillespie et al., 2004:243, 244; Burgess & Bothma, 2007:323). Driving forces for a strategic alliance include insufficient resources, high research and development costs, government cooperation, self-protection and market access, among others (Doole & Lowe, 2004:242, 243). The big advantage of such alliances is the ongoing flexibility, since they can be formed, adjusted and dissolved rapidly in response to changing conditions. The big disadvantage of strategic alliances is on the grounds that they give competitors a low-cost route to new technology and markets (Czinkota & Ronkainen, 2007:301, 302; Hill, 2007:499–501).

Contractual arrangements

One final major form of international market participation is contractual arrangements. Firms have found this method to be a useful alternative or complement to other international options. Contractual arrangements permit the international use of corporate resources and can also be an acceptable response to government ownership restrictions. Such an arrangement may focus on cross-marketing, where the contracting parties carry out complementary activities. Firms can also have a reciprocal arrangement whereby each partner provides the other with access to its market. Other contractual arrangements exist for outsourcing. As corporations look for ways to grow and simultaneously focus on their competitive advantage, outsourcing has become a powerful tool for achieving these goals. Contract manufacture might be necessary in order to overcome trade barriers and sometimes it is the only way of gaining entry to a country in which the government attempts to secure local employment by insisting on local production (Doole & Lowe, 2004:233).

Considering the dynamics of the international marketing environment and international marketing entry and development, the next stage is the best combination for the export marketing mix. The purpose of global marketing management is to plan and determine the best combination of the marketing mix with the aim of achieving success in the target market(s). The main elements of the marketing mix, namely product, price, place and promotion will be discussed next.

2.5 PRODUCT POLICY

According to Burgess and Bothma (2007:296) the product or service that the organisation markets to its international consumers is the cornerstone for the potential success of the organisation and also forms the cornerstone of the international marketing mix. The easiest course for the firm just beginning to go international is to sell products designed for the home market in foreign markets. However, the product in its current format may not be suitable for the international market.

2.5.1 GLOBAL PRODUCT DEVELOPMENT

A product can be defined as a tangible good, a service, an idea or, more often, some combination of these that, through the exchange process, satisfies consumer or business customer needs. To survive and grow in the international environment implies that the organisation will invest money in product innovation (Burgess & Bothma, 2007:296, 301, 302).

Product development is at the heart of the global marketing process. New products should be developed, or old ones modified, to cater for new or changing customer needs on a global or regional basis. At the same time, corporate objectives of technical feasibility and financial profitability must be satisfied. With competition increasingly able to react quickly when new products are introduced, worldwide planning at the product level provides a number of tangible benefits. In many multinational corporations, each product is developed for potential worldwide use, and unique multinational market requirements are incorporated whenever technically feasible. Some firms design their products to meet the regulations and other key requirements of their major markets and then, if necessary, the requirements of

smaller markets are met on a country-by-country basis (Doole & Lowe, 2004:254; Czinkota & Ronkainen, 2007:476–479).

The main goal of the product development process, therefore, is not to develop a standard product or product line but to build adaptability into products and product lines that are being developed to achieve worldwide appeal. Firms that successfully develop and market new products can earn enormous returns. Some companies are able to design their products so that they meet most standards and requirements around the world, with minor modifications on a country-by-country basis (Burgess & Bothma, 2007:302, 303; Czinkota & Ronkainen, 2007:476–479; Hill, 2007:605).

Traditionally, a company follows one of three basic strategies when introducing products into a foreign market (Gillespie et al., 2004:298):

- *Extension strategy* – adopting the same approach as in the home market.
- *Adaptation policy* – makes some changes to fit the new market requirements.
- *Invention strategy* – an entirely new approach is required.

In creating a suitable and acceptable product offering for international markets, it is necessary to examine firstly, what contributes to the total product, and secondly, to decide what makes the product acceptable to the international market. Three essential aspects of the product offering for meeting consumer needs and wants are the following (Doole & Lowe, 2004:253):

- *Product benefits* – the elements that consumers perceive as meeting their needs and providing satisfaction through performance and image.
- *Product attributes* – the elements most closely associated with the core product. These include features, specifications, styling, branding and packaging.
- *The marketing support services* – the additional elements to the core product which contribute to providing satisfaction. These include delivery, after-sales service and guarantees.

Success in international marketing depends to a large extent upon satisfying the demands of the market and, ultimately, on whether the product or service offered is

suitable and acceptable for its purpose. In defining the term “product”, therefore, Doole and Lowe (2004:249) include additional elements such as packaging, warranties, after-sales service and branding which make up the total product offering for the purchaser.

Ideas for new products are stimulated by the interactions of scientific research, demand conditions and competitive conditions. Most multinational corporations have located most of their product development operations within the parent corporation (Doole & Lowe, 2004:279; Hill, 2007: 606). The successful introduction of new products is critical to a firm’s international success. Failures not only create significant losses for companies but also hurt the brand and company reputation. The testing of new products, which will be discussed next, help managers evaluate improved versions of products and services (Cooper & Schindler, 2008:269).

2.5.2 THE TESTING OF NEW PRODUCT CONCEPTS

The final stages of the product development process will involve testing the product in terms of both its performance and its projected market acceptance. A full test in several major markets is essential so that any shortcomings can be addressed at an early stage before costly adaptations for individual countries are made. Today, the average time lag between domestic introduction and foreign introduction has diminished considerably (Burgess & Bothma, 2007:304; Czinkota & Ronkainen, 2007:483, 484). Screening criteria should include production and marketing considerations, as well as legal factors, financial returns, logistics constraints and government views. Success breeds imitation, so rarely does a new product have the market to itself unless protected by strong patents and copyrights (Terpstra & Sarathy, 2000:298, 299, 343, 344).

2.5.2.1 Global benchmarking

Global benchmarking is one approach to ensuring that a new product does not fall behind offerings from competitors. Obtaining world-class quality is an essential stage of product development. Meeting ISO 9000 certification is one way to ensure that processes to ensure quality production are in place. The link between product quality and marketing is a strong one (Terpstra & Sarathy, 2000:344). Ultimately, superior

quality can reduce a customer's life-cycle ownership costs and enhance customer loyalty, repeat buying and word-of-mouth advertising (Terpstra & Sarathy, 2000:340–342).

2.5.2.2 The role of global sourcing

A firm that shifts from supplying a market through exports to supplying that market through a manufacturing plant in that country has to rethink its component sourcing decisions. New choices must be made because of tariffs, transportation costs, and lower costs from local sources of supply, and overall greater familiarity with new local-supplier capabilities (Terpstra & Sarathy, 2000:309, 310).

Thus, the firm will be motivated to begin local sourcing as a result of several factors. These include high tariff barriers, an appreciating exchange rate in the parent country, high transportation costs, low local-market production costs and an attractive local market, as reflected in growth rates and profitability (ibid, 2000:309, 310).

2.5.3 PRODUCT ADAPTATION

In deciding what products the company should sell overseas, the basic question is whether to standardise or adapt the product to foreign markets. Meeting and satisfying customer needs and expectations is the key to successful marketing. The firm's product offering to the marketplace needs to take account of the balance between the advantages of standardisation and those of localisation to maximise export performance (Czinkota & Ronkainen, 2007:326).

2.5.3.1 Product variables

The firm's success depends on how good its product or service is and how well the firm is able to differentiate the product from the offerings of competitors. Products can be differentiated by their composition, by their country of origin, by their tangible features such as packaging or quality, or by their augmented features such as warranty. Further, the positioning of the product in consumers' minds will add to its perceived value. Competition on dimensions other than price, such as product features, delivery time or brand image, are less likely to erode profitability because they improve customer value and can support higher prices. Also, rivalry focused on

such dimensions can improve value relative to substitutes or raise the barriers facing new entrants (Porter, 2008:86).

Both technical and government-mandated standards affect a company's ability to market products in various foreign markets. Standards can either be technical standards or government-mandated ones. Technical standards are enforced by the market in the sense that the best technical standards receive the approval of customers in the form of their purchases. Differences in product standards can act as trade barriers, with governments enacting such standards in the public interest. Often government standards can become a means of keeping out foreign competition. Exporters themselves may seek endorsement of their efforts from governmental or consumer organisations. Increasingly, many exporters realise that they have to meet international quality standards to compete for business abroad and to win contracts from multinational corporations (Terpstra & Sarathy, 2000:272, 273; Czinkota & Ronkainen, 2007:327, 328).

Against the background of so many variables, it is inevitable that companies adopt a very wide range of product strategies in international markets. According to Doole and Lowe (2004:262), choices include:

- *sell what you have got* – most common form of export strategies
- *sell what people actually buy* – classic differentiated approach
- *sell the same thing globally* – disregarding national frontiers.

2.5.3.2 Standardisation versus adaptation

With the globalisation of production as well as markets, the challenge is to strike the right balance between economies of scale and responsiveness to local conditions. Ghemawat (2007:59–68) presents a new framework for approaching global integration to get around the problem, called the AAA Triangle. The three As stand for the three distinct types of global strategy, namely adaptation, aggregation/standardisation and arbitrage/exploitation of the differences between national or regional markets. The latter attempts to exploit the common denominators, but local or regional needs are considered from product development to the eventual marketing of the product.

Table 2.3 below summarises the comparison between standardisation versus adaptation.

Table 2.3: Comparison between standardisation versus adaptation

Factors encouraging standardisation	**Factors encouraging adaptation**
Economies of scale in production	Differing use conditions
Economies in product R&D	Government and regulatory influences
Economies in marketing	Differing consumer behaviour patterns
Shrinking of the world marketplace/ economic integration	Local competition
Global competition	True to the marketing concept
Strong country-of-origin image and effects	
Cost advantages compared to adaptation	

Source: Terpstra & Sarathy, 2000:215; Burgess & Bothma, 2007:298, 299; Czinkota & Ronkainen, 2007:328

The goals of reducing costs and complexity lead companies to consider standardisation, while a customer orientation sways them toward product adaptation (Terpstra & Sarathy, 2000:253).

Inputs from the South African-based OEMs whether they customise their South African manufactured light vehicles for the different exports markets or not will be obtained via the empirical survey forming part of this study.

Increasingly, companies are attempting to develop global products by incorporating differences regionally or worldwide into one basic design. Firms attempt to exploit the common denominators, but local needs are considered from product development to the eventual marketing of the product (Czinkota & Ronkainen, 2007:330).

The decision for most companies to standardise or to adapt is based on a cost/benefit analysis of what they believe the implications of adaptation and standardisation might be for revenue, profitability and market share (Doole & Lowe, 2004:254–257). In this regard the market environment is thus an important consideration.

The market environment includes government regulations, non-tariff barriers, customer characteristics, expectations and preferences, economic development, competitive offerings and climate and geography, all of which will be discussed next.

- *Government regulations* – Government regulations often present the most stringent requirements. Some of the requirements may serve no purpose other than political, such as the protection of domestic industry or a response to political pressures. Individual firms need to comply with the requirements but can influence the situation by lobbying, directly or through their associations, for the issue to be raised during trade negotiations. Government regulations are probably the most important factor contributing to product adaptation and, because of bureaucratic red tape, often the most cumbersome factor to deal with (Czinkota & Ronkainen, 2007:331, 332).
- *Non-tariff barriers* – Non-tariff barriers include product standards, testing or approval procedures, subsidies for local products and bureaucratic red tape. The non-tariff barriers affecting product adjustments usually concern elements outside the core product. Since non-tariff barriers are usually in place to keep foreign products out and/or to protect domestic producers, getting around them may be the toughest single problem for the firm. With a substantial decrease in tariff barriers, non-tariff forms of protectionism have increased (Gillespie et al., 2004:264–268; Burgess & Bothma, 2007:132–137; Czinkota & Ronkainen, 2007:332, 333).
- *Customer characteristics, expectations and preferences* – The characteristics and behaviour of intended customer groups are as important as governmental influences on the product adaptation decision. Product decisions of consumer-product firms are especially affected by local behaviour, tastes, attitudes and traditions, all reflecting the firm's need to gain customers' approval. This group of variables is critical in that it is the most difficult to quantify but is nevertheless essential in making a go/no-go decision (Czinkota & Ronkainen, 2007:333–336; Burns & Burns, 2008:73).
- *Economic development* – The present stage of economic development of the overseas market must be taken into account. As a country's economy advances, buyers are in a better position to buy and to demand more sophisticated kinds of products and services (Czinkota & Ronkainen, 2007:336, 337).

- *Competitive offerings* – Monitoring competitors' product features, as well as determining what has to be done to meet and beat them, is important. Competitive offerings may provide a baseline against which the firm's resources can be measured. An analysis of competitors' offerings may reveal holes in the market or suggest avoiding certain market segments (ibid, 2007:337).
- *Climate and geography* – Climate and geography will usually have an effect on the total product offering, namely the core product, tangible elements of which are packaging and the augmented features. Some products, by design, are vulnerable to the elements of nature (Burgess & Bothma, 2007: 137; Czinkota & Ronkainen, 2007:337, 338).

2.5.4 PRODUCT CHARACTERISTICS

Product characteristics are the inherent features of the product offering, whether actual or perceived (Czinkota & Ronkainen, 2007:338). Product policy goes beyond the product itself as attributes such as brands, country of origin and warranty, and service policies represent key decision areas (Terpstra & Sarathy, 2000:261).

2.5.4.1 Brands

Brand names convey the image of the product or service. The term "brand" refers to a name, term, symbol, sign or design used by a firm to differentiate its offerings from those of its competitors. Brands are one of the most easily standardised items in the product offering and provide a name or symbol that gives products credibility and helps the consumer identify the product. Once developed and recognised a brand can have a long life. The return to the firm is brand loyalty and repeat purchases and a loyal customer. Since acquiring customers is costly, loyal customers who buy regularly are valuable to a firm. Brands allow a firm to charge premium prices. The profits from premium pricing, coupled with steady market share and repeat purchases, result in measurable cash flow, which is at the heart of brand equity calculations. A globally recognised brand name can be a huge asset even when a firm enters new markets. The advantage of global branding includes economies of scale in advertising. Global brands are also important in securing access to distribution channels (Gillespie et al., 2004:273–279; Burgess & Bothma, 2007:306; Czinkota & Ronkainen, 2007:338, 339).

2.5.4.2 Country-of-origin effects

The country of origin of a product, typically communicated by the phrase “made in (country)”, has a considerable influence on the quality perceptions and acceptance of a product in foreign markets. Consumers are keen to pay more for products and services originating from desirable countries. Some countries have an unassailable advantage in the country-of-origin stakes in the world. However, country-of-origin biases have both positive and negative implications. The manufacturing of products in certain countries is affected by a built-in positive or negative stereotype of product quality. These stereotypes become important when important dimensions of a product category are associated with a country’s image. This issue may be especially important to developing countries, which need to increase exports, and for importers, who source products from countries different to those where they are sold. Country-of-origin effects lessen as customers become more informed. Also, as more countries develop the necessary bases to manufacture products, the origin of the products becomes less important (Burgess & Bothma, 2007:306; Czinkota & Ronkainen, 2007:344).

2.5.4.3 Warranty and service policies

Buyers around the world purchase products with certain performance expectations and consider policies for backing promises. As a result, warranties and service policies can become an integral part of a company’s international product strategy. Thus, a comprehensive warranty and service policy can become a very important marketing tool for international companies. Since an attractive warranty policy can be helpful in obtaining sales, a firm’s warranty policy should be in line with those of other firms competing in the local market. Thus, there must be a strong level of consistency between a company’s warranty policies and its worldwide after-sales service network (Gillespie et al., 2004:287–289; Czinkota & Ronkainen, 2007:343).

2.5.5 MANAGEMENT OF THE PRODUCT AND BRAND PORTFOLIO

Most marketers have a considerable number of individual items in their product portfolios, consisting of different product lines, that is, groupings of products managed and marketed as a unit. The options for a particular portfolio are to expand geographically to new markets or new segments and add to existing market

operations through new product lines or new product business. The marketer will need to have a balanced product and market portfolio, namely a proper mix of new, growing and mature products to provide a sustainable competitive advantage (Czinkota & Ronkainen, 2007:489, 490).

Product-line diversification generally should relate to the firm's unique competitive advantages – its core competencies. Firms use product-line extension as a way of broadening their appeal to customers and as a means of offering additional products on domestic and international markets (ibid, 2007:487, 488).

A strong factor in product extension to foreign markets is client needs, that is, the needs of the company's home customers as those customers travel abroad. Competition serves as a benchmark in assessing how to satisfy customer needs worldwide. The competition's product line is particularly relevant. If a firm wants to be one of the top three or four players in an industry, it must match competitors' product lines. Product-line choices for individual markets are affected by additional factors, such as government regulations, the level of economic development of the market, the company's growth patterns and the length of time the firm has been in a particular foreign market (Terpstra & Sarathy, 2000:317–324; Gillespie et al., 2004:289, 290).

Branding is one of the major beneficiaries of a well-conducted portfolio analysis. Brands are important because they shape customer decisions and, ultimately, create economic value. They simplify everyday choices, reduce the risk of complicated buying decisions, provide emotional benefits and offer a sense of community. The constituents of the brand can include both tangible benefits, such as quality and reliability, and intangible benefits which may bring out a whole range of feelings, such as status or possessing good judgement by purchasing a particular brand. The total cost of ownership and the tangible and intangible benefits are accrued over the lifetime of the product. Market power is usually in the hands of brand-name companies that have to determine the most effective use of this asset across markets (Czinkota & Ronkainen, 2007:489, 490; Ulrich & Smallwood, 2007:100).

Branding is an integral part of the overall identity management of the firm. It is typically a centralised function to exploit to the fullest the brand's assets as well as to protect

the asset from dilution such as by extending the brand to inappropriate new lines. The brand portfolio needs to be periodically and regularly assessed (Czinkota & Ronkainen, 2007:492).

Closely related to brand strategy and at the heart of the implementation of brand strategy is positioning. Positioning is largely concerned with how a product or service might be differentiated from the competition. In countries at different stages of economic development the customer segments that are likely to be able to purchase the product and the occasions on which it is bought may be significantly different. The differentiation might be based on price and quality, one or more product or service attribute, a target consumer or a direct comparison with one competitor (Doole & Lowe, 2004:275, 276).

In addition to product, a further element of the marketing mix is price, which will be discussed next.

2.6 EXPORT PRICING STRATEGIES

Setting the right price for a product can be the key to success or failure. Even when the international marketer produces the right product, promotes it correctly and initiates the proper channel of distribution, the effort fails if the product is not properly priced. A product's price must reflect the quality and value the consumer perceives in the product (Burgess & Bothma, 2007:357).

Many organisations believe that pricing is the most flexible, independent and controllable element of the marketing mix and that it plays a major role in international marketing management. This is largely based on the fact that pricing changes appear to prompt an immediate response in the market (Doole & Lowe, 2004:369). The setting of export prices is complicated by factors such as increased distance to markets, currency fluctuations, governmental policies such as duties, and typically longer and different types of distribution channel. The objective remains to create demand for the firm's offerings and to do so profitably in the long term. Since price is just one attribute of a product, along with others such as quality, reliability, service and user satisfaction, trade-offs are necessary (Terpstra & Sarathy, 2000:522; Czinkota & Ronkainen, 2004:273, 274). With increased economic integration and globalisation of

markets, the coordination of pricing strategies between markets becomes more important (Czinkota & Ronkainen, 2007:354).

The dynamics of export pricing strategies will be discussed next.

2.6.1 PRICE DYNAMICS

Price is the only element of the marketing mix that is revenue generating, all the others are costs. Price serves as a means of communication with the buyer by providing a basis for judging the attractiveness of the offering. It is a major competitive tool in meeting and beating close rivals and substitutes. Competition will often force prices down, whereas intracompany financial considerations have the opposite effect. Prices, along with costs, will determine the long-term viability of the enterprise (Czinkota and Ronkainen, 2007:354, 355).

Price should not be determined in isolation from the other marketing mix elements. It may be used effectively in positioning the product in the marketplace. The feasibility range for price setting, established by demand, competition, costs and legal considerations, may be narrow or wide in a given situation. Pricing should, however, never be regarded as a static element. The ultimate goal is to make the customer as inelastic as possible where the customer should prefer the firm's offer even at a price premium. According to Burgess and Bothma (2007:357, 365, 366) as well as Czinkota and Ronkainen (2007:354, 355) the general alternatives in first time pricing are the following:

- *Skimming* – the objective of skimming is to achieve the highest possible contribution in a short time period. The success of skimming depends on the ability and speed of competitive reaction.
- *Following the market price* – although firms typically use pricing as a differentiation tool, firms may have no choice but to accept the prevailing world market price.
- *Penetration price* – when penetration pricing is used, a product is offered at a low price intended to generate volume sales and achieve high market share. This would compensate for a lower per-unit return.

Price changes are called for when a new product is launched, when a change occurs in overall market conditions, or when there is a change in the exporter's internal situation, such as the cost of production. An exporter may elect not to change the price even though the result may be lower profitability. Price changes usually follow changes in the product's stage in the life cycle. As the product matures, more pressure will be put on the price to keep the product competitive despite increased competition and less possibility of differentiation. With multiple-product pricing, the various items in the line may be differentiated by pricing them appropriately to indicate, for example, an economy version, a standard version and the top-of-the-line version. One of the products in the line may be priced to protect against competitors or to gain market share from existing competitors. The other items in the line are then expected to make up for the lost contribution of such a fighting brand (Czinkota & Ronkainen, 2007:355).

2.6.2 THE SETTING OF EXPORT PRICES AND TERMS

The setting of the export price is influenced by both internal and external factors, as well as their interaction. Internal factors include 1) the company's philosophy, goals, and objectives; 2) the costs of developing, producing, and marketing the export product; and 3) the nature of the exporter's product and industry. External factors relate to international markets in general or to a specific target market in particular. These include factors such as customer, regulatory, competitive and financial characteristics. The interaction of these elements causes pricing opportunities and constraints in different markets. As in all marketing decisions, the intended target market will establish the basic premise for pricing. Factors to be considered include the importance of price in customer decision making, in particular the ability to pay. Pricing policies follow from the overall objectives of the firm for a particular target market and involve general principles or rules that a firm follows in making pricing decisions. Policies include profit maximisation, market share, survival, percentage return on investment and various competitive policies. Competitive policies include copying competitors' prices, following a particular competitor's prices, or pricing so as to discourage competitors from entering the market (Czinkota & Ronkainen, 2007:355, 356). The best export price is the one that maximises long-term profits (Terpstra & Sarathy, 2000:527).

Table 2.4 below summarises the determinants of foreign-market pricing.

Table 2.4: Determinants of foreign-market pricing

Company goals	market share, profits, discounting for specific customers, competitive response
Costs	manufacturing – scale economies, lower factor costs, productivity transportation – long-term shipping contracts, alternative modes of transport, scale economies marketing – direct versus indirect distribution, start-up marketing costs in new country markets, short-term promotions
Demand	elasticity, cyclicality, product cycle stage
Competition	their goals, seeking market share, cross-subsidisation of markets, segment strategy
Government	government as buyer, price controls, demands for re-investment, attitude to profits
Taxes and tariffs	duty-free imports, re-classifying goods to lower duties, taking advantage of regional integration, offset and counter trade possibilities, incentives for re-export
Inflation	inflation rate, level and trends, possible impacts, pricing in hard currencies
Product line	extent of product line, bundled pricing, volume discounts across product line
Distribution channels	differential pricing by channel based on value-added services specific to the channel, volume discounts
Marketing mix	additional costs of local advertising and promotions, service and training, local cooperative advertising, commission structure and local cost levels

Source: Terpstra & Sarathy, 2000:557

The strength of competition and the firm's objectives interact in determining how the firm sets its international prices.

Inputs from the respondents in respect of the most important determinant of foreign-market pricing in setting the export price for the South African manufactured light vehicles in a South African context will be obtained from the empirical survey forming part of this study.

2.6.2.1 Export pricing strategy

New entrants to an industry bring new capacity and a desire to gain market share that puts pressure on prices, costs and the rate of investment necessary to compete. Particularly when new entrants are diversifying from other markets, they can leverage existing capabilities and cash flows to shake up competition (Porter, 2008:80). Three general price-setting strategies in international marketing are a standard worldwide price, dual pricing which differentiates between domestic and export prices, and market-differentiated prices. The first two methods are cost-oriented pricing methods

that are relatively simple to establish and easy to understand. The third strategy is based on demand orientation and may thus be more consistent with the marketing concept. However, even the third concept has to acknowledge cost in the long term (Doole & Lowe, 2004:380, 381; Burgess & Bothma, 2007:360; Czinkota & Ronkainen, 2007:357, 358):

- *Standard worldwide, standardisation or ethnocentric pricing* is based on setting a price for the product as it leaves the factory, irrespective of its final destination. Whilst each customer pays the same price for the product at the factory gate, they are expected to pay transport and import duties themselves, either directly or indirectly, and this leads to considerable differences in the price for the final consumer. For the firm, this is a low-risk strategy as a fixed return is guaranteed and the international buyer takes all the exchange rate risk. However, no attempt is made to respond to local conditions in each national market and so no effort is made to maximise either profits or sales volume.
- *In dual pricing, adaptation or polycentric pricing*, domestic and export prices are differentiated, and two approaches to pricing products for exports are available, namely cost-driven and market-driven approaches. If a cost-based approach is decided on, the choice is between the cost-plus method and the marginal cost method. The cost-plus strategy is true cost, in which domestic and foreign costs are fully allocated to the product. Although this type of pricing ensures margins, the final price may be so high that the firm's competitiveness is compromised. The marginal cost method considers the direct costs of producing and selling products for export as the floor beneath which prices cannot be set. Fixed costs for plant, R&D and domestic overheads as well as domestic marketing costs are disregarded. An exporter can thus lower export prices so as to be competitive in markets that might otherwise have been beyond access. Each local subsidiary or partner may set a price which is considered to be the most appropriate for local conditions, and no attempt is made to coordinate prices from country to country.
- *Market-differentiated, invention, or geocentric pricing* calls for export pricing according to the dynamic conditions of the marketplace. In addition to product quality, correct pricing is seen as a major determinant of international marketing

success. This approach involves neither fixing a single price, nor allowing local subsidiaries total freedom for setting prices either, but attempts to take the best of both approaches. Whilst the need to take account of local factors is recognised, particularly in the short term, the firm still expects local pricing strategies to be integrated into a company-wide long-term strategy. The success of differential pricing depends to a large degree on differential elasticity of demand and effective separation of markets.

Inputs from the South African-based OEMs in respect of whether a standard world price or a differentiated price policy is followed for their light vehicle exports will be obtained using the empirical survey forming part of this study.

Having determined suitable strategies for pricing in international markets, a company must then consider the options available for setting individual prices. The most common pricing objectives for companies include the following (Doole & Lowe, 2004:381, 382):

- rate of return on investment
- market stabilisation so that market shares are not significantly changed
- demand-led pricing
- competition-led pricing
- pricing to reflect product differentiation
- market skimming by entering on a high price and then lower price gradually
- market penetration by low prices
- early cash recovery
- prevent new entry

Companies can decide on the basis of their knowledge, objectives and situation to take a cost, market or competition-oriented approach (Doole & Lowe, 2004:382; Burgess & Bothma, 2007:366–370):

- *Cost-oriented pricing* or cost plus pricing is the simplest and most widely used pricing method to either achieve a specific return on investment or ensure an early recovery of either the cash or investments made to enter the market.

- *Market-oriented export pricing* – assessing the demand and competitive situations in the target market and identifying of a market-related price. Provides the opportunity to stabilise competitive positions within the market, skim the most profitable business or penetrate the market.
- *Competition-oriented pricing* – based on the actual or anticipated behaviour of competitors. Designed to maintain and improve market position, meet and follow competition, or prevent or discourage new entrants into the market (Doole & Lowe, 2004:382).

The rationale behind any firm's decision to enter international markets is usually to increase profitability, and this is based on recognition of the fact that the size of the firm's actual market share is a primary determinant of profitability (Doole & Lowe, 2004:376–378).

2.6.2.2 Export-related costs

Export prices should be set so that export sales are at least as rewarding as other sales outlets. Shipping and insurance costs, tariffs, market-specific taxes and distributor mark-ups all add to the cost of exported products (Terpstra & Sarathy, 2000:546). In preparing a quotation, unique export-related costs must be taken into account and included. These are in addition to the normal costs shared with the domestic side. They include (Czinkota & Ronkainen, 2007:359):

- the cost of modifying the product for foreign markets
- operational costs of the export operation such as market research, additional shipping and insurance costs, communications costs with foreign customers and overseas promotional costs
- costs incurred in entering the foreign markets such as tariffs and taxes and risks from dealing in other than the exporter's domestic currency or foreign exchange risk.

The combined effect of both clear-cut and hidden costs results in export prices that far exceed domestic prices and which require cost-cutting strategies.

2.6.3 TERMS OF SALE

The responsibilities of the buyer and the seller should be spelt out as they relate to what is and what is not included in the price quotation and when ownership of goods passes from seller to buyer. Prices quoted ex-works apply only at the point of origin, and the seller agrees to place the goods at the disposal of the buyer at the specified place on the date or within the fixed period. Free on board (FOB) applies only to vessel shipments. The seller quotes a price covering all expenses up to, and including, delivery of goods on an overseas vessel provided by or for the buyer. With cost, insurance and freight (CIF) to a named overseas port of import, the seller quotes a price including insurance, all transportation and miscellaneous charges to the point of debarkation from the vessel. With delivered duty paid (DDP), the seller delivers the goods, with import duties paid, including inland transportation from import to the buyer's premises. With delivered duty unpaid (DDU), only the destination customs duty and taxes are paid by the consignee. Ex-works signifies the maximum obligation for the buyers and delivered duty paid puts the maximum burden on the seller. These terms are powerful competitive tools (Burgess & Bothma, 2007:372; Czinkota & Ronkainen, 2007:361–363).

2.6.4 TERMS OF PAYMENT

Export credit and terms constitute another complex area of pricing for the international market. The task is to choose payment terms that satisfy importers, yet safeguard the interests of the exporter. Export credit and terms sold add another dimension to the profitability of an export transaction. The main objective is to meet the importer's requirements without jeopardising the firm's financial goals. The exporter will be concerned with being paid for goods shipped and will therefore consider the following factors in negotiating terms of payment:

- the amount of payment and the need for protection
- terms offered by competitors
- practices in the industry
- capacity for financing international transactions
- relative strength of the parties involved

The exporter needs to minimise the risk of not getting paid if a transaction occurs.

2.6.5 MANAGING FOREIGN EXCHANGE RISK

Exchange risks may be a result of an appreciating or depreciating currency or result from a revaluation or devaluation of a currency by a central bank. Exchange-rate risk can be classified as transaction risk, competitive risk and market-portfolio risk. Each of these risks suggests different strategic actions. Transaction risk means that changes in the value of the foreign currency may diminish the financial results of the firm, while competitive risk arises when the geographic pattern of a company's manufacturing and sales configuration, when compared to its key competitors, differs. A company manufacturing in a country with depreciating exchange rates and selling to a country with appreciating exchange rates would stand to gain considerable market share without raising prices. Market-portfolio risk arises from a firm's export markets as compared to the country-market portfolio of its global competitors. A more diversified company, one that sells to several country markets, would not be as influenced by changes in specific currency rates (Terpstra & Sarathy, 2000:535–537). Offsetting such fluctuations may entail sacrificing profit margins to maintain market share (ibid, 2000:529–531).

Two types of approach to protect against currency-related risk are proposed, namely risk shifting, such as foreign contractual hedging, and/or risk modifying, such as manipulating prices and other elements of a marketing strategy. When invoicing in foreign currencies, an exporter cannot insulate itself from the problems of currency movements, but it can at least know how much it will eventually receive by using the mechanism of the forward exchange market. In essence, the exporter gets the bank to agree a rate at which it will buy the foreign currency the exporter will receive when the importer make the payment. The rate is expressed as either a premium or a discount on the current spot rate. The risk still remains if the exchange rate does not move as anticipated, and the exporter may be worse off than if it had not bought forward. Although forward contracts are the most common foreign currency contractual hedge, other financial instruments and derivatives, such as currency options and futures, are available. An option gives the holder the right to buy or sell foreign currency at a pre-specified price on or up to a pre-specified date. The currency futures market is conceptually similar to the forward market. That is, to buy futures on the British pound sterling implies an obligation to buy in the future at a pre-specified price (Czinkota & Ronkainen, 2007:373).

If the exporter quotes in the domestic currency, then not only is it administratively much easier, but also the risks associated with changes in the exchange are borne by the customer. By quoting prices in the foreign currency the exporter bears the exchange rate risk (Doole & Lowe, 2004:390, 391). Whatever the currency movements are, the firm needs to decide how to adjust pricing to international customers in view of either a more favourable or an unfavourable domestic currency rate (ibid, 2007:373).

Inputs from the South African-based OEMs regarding the currency in which the export price for their South African manufactured light vehicles is set will be obtained by means of the empirical survey that forms part of this study.

2.6.6 SOURCES OF EXPORT FINANCING

Export financing terms can significantly affect the final price paid by buyers. Financing assistance is available from both the private and public sectors. Commercial banks the world over provide trade financing depending on their relationship with the exporter, the nature of the transaction, the country of the borrower and the availability of export insurance. Official trade finance can take the form of either a loan or a guarantee, including credit insurance (ibid, 2007:376).

2.6.7 PRICE NEGOTIATIONS

Since pricing is the most sensitive issue in business negotiations, the exporter should be ready to discuss price as part of a comprehensive package. An importer may reject an exporter's price at the outset in the hopes of gaining the upper hand or obtaining concessions later on. These concessions include discounts, an improved product, better terms of sales/payment and other possibly costly demands. During the actual negotiations, pricing should be postponed until all of the major substantive issues have been agreed upon. Since quality and reliability of delivery are the critical dimensions of supplier choice in addition to price, especially when long-term export contracts are in question, the exporter may want to reduce pressure on price by emphasising these two areas and how they fit with the buyer's needs (ibid, 2007:380).

Inputs from the respondents with regard to the importance of the image of South African OEMs in respect of reliability of supply, quality and cost competitiveness of their South African manufactured light vehicle exports in penetrating new export markets will be obtained via the empirical survey forming part of this study.

2.6.8 MANAGERIAL ISSUES IN GLOBAL PRICING

Managerial issues, such as those outlined below, are matters that require constant management attention and are never really resolved (Doole & Lowe, 2004:385, 388, 394; Gillespie et al., 2004:330–342; Burgess & Bothma, 2007: 375–379; Hill, 2007:546–549).

- *Managing export price escalation* – Additional costs may raise the end-user price of an exported product substantially above its domestic price. A company may accept its price disadvantage or alternatively re-engineer its products to be less costly or grant a discount.
- *Transfer prices* – An international transfer price is the price paid by the importing or buying unit of a firm to the exporting unit of the same firm and it frequently differs from free-market prices. The transfer pricing mechanism to reduce a company's taxes and duties may impact internally on subsidiary managers whose profits are artificially reduced. External problems include government actions when tax revenues are reduced as a result of the transfer pricing mechanism.
- *Dealing with parallel imports* – Owing to different market and competitive factors, the same product is sold at different prices in different markets. Parallel imports or grey market imports appear when individual buyers or independent entrepreneurs step in and buy products in low-price countries to re-export to high-price countries, profiting from the price differential.
- *Setting global prices* – To maximise a company's revenues, it would appear logical to set prices on a market-by-market basis, seeking in each market the best combination of price and expected volume to yield the maximum profit. A uniform pricing strategy is complicated by the different taxes, trade margins and customs duties involved. A company can, however, employ modified uniform pricing by carefully monitoring price levels in each country and avoiding large gaps that encourage grey marketers to move in and take advantage of large price differentials.

- *Non-cash pricing* – Countertrade is a form of pricing because the sale is tied to accepting other goods in exchange. The supplier must then turn the product offered into hard currency.

In the next section international distribution management and logistics, as part of the export marketing mix, will be discussed.

2.7 INTERNATIONAL DISTRIBUTION MANAGEMENT AND LOGISTICS

One of the most important decisions that an exporter must make is to decide on how its range of products and services should be delivered to prospective buyers located in various target markets in the world. Channels of distribution provide the essential linkages that connect producers and customers. Optimal distribution systems are flexible and are able to adjust to market conditions (Burgess & Bothma, 2007:316, 317; Czinkota & Ronkainen, 2007:414). In general, companies use one or more of the following distribution systems:

- The firm sells directly to customers through its field sales force or through electronic commerce.
- The company operates through independent intermediaries, usually at the local level.
- The business depends on an outside distribution system that may have regional or global coverage.

The distribution function is the marketing instrument that presents the product to the consumer and it forms an integral part of the broader concept within marketing called managing the supply chain. Managing the supply chain implies that all the business processes of the organisation are integrated from the end-user backwards through the original suppliers that provide the product or service and information that may add value for the customer. There is usually a wide geographical gap between the manufacturer of the product or provider of the service and the consumer requiring it. This is especially the case when marketing products internationally. The main function of distribution is therefore to bridge the gap between the manufacturer or service provider and to provide value for the consumer (Burgess & Bothma, 2007:316, 317; Czinkota & Ronkainen, 2007:414).

The decisions involved in the structuring and management of the export channel of distribution will be discussed next.

2.7.1 CHANNEL STRUCTURE

Channel configurations for the same product will vary within industries, even within the same firm, because national markets quite often have unique features. The three product flows, namely physical, transactional and informational, do not necessarily take place simultaneously or occur at every level of the channel. The basic marketing functions of exchange and physical movement, and various facilitating activities must be performed, but the marketer may not be equipped to handle them. Intermediaries can therefore be used to gain quick, easy and relatively low-cost entry to a targeted market (Czinkota & Ronkainen, 2007:415).

2.7.1.1 Analysing national channels

A distribution strategy is one part of the marketing mix and it needs to be consistent with other aspects of the marketing strategy, namely product policies, pricing strategy and communication strategy. The following variables relating to the nature of channels in their various markets are important (Gillespie et al., 2004:353; Hill, 2007:591–592):

- *Distribution density* – Density is the amount of exposure or coverage desired for a product, particularly the number of sales outlets necessary to provide for adequate coverage of the entire market.
- *Channel length* – The concept of a channel length involves the number of intermediaries involved in bringing a given product from the firm to the consumer. Channel length is usually influenced by 1) a product's distribution density; 2) the average order quantity; and 3) the availability of channel members. Products with extensive distribution, or large numbers of final sales points, tend to have longer channels of distribution.
- *Channel alignment and leadership* – The structure of the chosen channel members should be aligned to achieve a unified strategy.
- *Distribution logistics* – Logistics involves the physical flow of products as they move through the channel.

The decisions involved in the first three variables cannot be approached independently. As the decisions are interrelated, they need to be consistent with other aspects of the marketing strategy (Gillespie et al., 2004:353).

2.7.1.2 Factors influencing the selection of channel members

The selection of distribution partners is an extremely important decision, because the partner often will assume a portion of the marketing responsibility, or even all of it. In addition, the distribution partner usually is involved in the physical movement or logistics of products to the customers. A number of factors influence the selection of distribution partners (Burgess & Bothma, 2007:328, 329; Gillespie et al., 2004:356–358):

- *Costs* – Channel costs fall into three categories, namely initial costs, maintenance costs and logistics costs. The initial costs include all the costs of locating and setting up the channel. The maintenance costs of the channel include the costs of the company's sales staff, auditing and controlling channel operations and profit margin given to channel intermediaries. The logistics costs include the transportation expenses, storage costs and cost of customers' paperwork.
- *Product and product line* – The nature of the product and the size of the product line can affect channel member selection.
- *Control, coverage and synergy* – Each type of channel arrangement offers the manufacturer a different level of control over price, promotion and type of retail outlet, among other things. Coverage entails reaching the geographic area that a manufacturer wants to cover. Synergy normally occurs through the existence of complementary skills or expertise that can increase the total output of the distribution system.

The distribution partner(s) best able to facilitate the marketing efforts of the firm are the ones that will be selected.

2.7.2 CHANNEL DESIGN AND SELECTION

The term "channel design" refers to the length and the width of the channel employed. Length is determined by the number of levels, or different types of intermediary, while

channel width is determined by the number of institutions of each type in the channel. Channel design is determined by factors that can be summarised as the 11 Cs, which are reflected in Table 2.5:

Table 2.5: Determinants of channel structure and relationships

External	**Internal**
Customer characteristics	Company objectives
Culture	Character
Competition	Capital
	Cost
	Coverage
	Control
	Continuity
	Communication

Source: Doole & Lowe, 2004:338; Czinkota & Ronkainen, 2007:416

The three external factors are a given, as the firm must adjust to the existing structures, while the internal eight are controllable to a certain extent (Czinkota & Ronkainen, 2007:416). Selecting the most suitable channel participants and gaining access to the market are extremely important steps in achieving an integrated and responsive distribution channel. However, without proper motivation of and control over that channel, sales may remain unsatisfactory (Doole & Lowe, 2004:342–344; Gillespie et al., 2004:360, 361).

2.7.3 SELECTING OF INTERMEDIARIES

Two basic decisions are involved in choosing the type of intermediaries to serve a particular market. Firstly, the type of relationship to have with intermediaries must be determined. The alternatives are distributorship and agency relationship. A distributor will purchase the product and will therefore exercise more independence than agencies. Distributors are typically organised along product lines and provide the international marketer with complete marketing services. Agents have less freedom of movement than distributors because they can operate on a commission basis and do not usually physically handle the goods. This, in turn, allows the marketer more control (Terpstra & Sarathy, 2000:412–414; Czinkota & Ronkainen, 2007:425, 426).

The second decision is whether to use indirect exporting, direct exporting or integrated distribution in penetrating a foreign market. Indirect exporting requires dealing with another domestic firm that acts as a sales intermediary for the marketer, often taking over the international side of the marketer's operations. The benefits, especially in the short term, are that the exporter can use someone else's international channels without having to pay to set them up. With direct exporting, the marketer takes direct responsibility for its products abroad by either selling directly to the foreign customer of finding a local representative to sell its products in the market. The third category of export marketing strategy, integrated distribution, requires the marketer to make an investment in the foreign market for the purpose of selling its products in that market or more broadly. The investment could be the opening of a sales office, a distribution hub or even an assembly operation or manufacturing facility. Although the last set of strategies indicates longer-term commitment to a market, it is riskier than the first two because the marketer is making major financial investment (Terpstra & Sarathy, 2000:412–414; Czinkota & Ronkainen, 2007:425, 426).

2.7.4 CHANNEL MANAGEMENT

Once an international marketing strategy has been chosen, there remains the challenge of distributing the product within those foreign markets. The closer the relationship is to a distribution partnership, the more likely marketing success will materialise. The relationship has to be managed for the long term (Burgess & Bothma, 2007:328; Czinkota & Ronkainen, 2007:435, 436).

2.7.4.1 Managing global distribution

A firm's marketing strategies may have to be responsive to differences in distribution channels among countries, which may necessitate the delegation of marketing functions to national subsidiaries (Hill, 2007:425).

In international marketing, companies usually take advantage of a wide number of different organisations to facilitate the distribution of their products. The large number is explained by considerable differences between countries both in their distribution systems and in the expected level of product sales. The physical movement of goods usually includes several modes of transport. The selection of the appropriate

distribution strategy is a significant decision. Whilst the marketing mix decisions of product and marketing communications are often more glamorous, they are usually dependent upon the chosen distribution channel. The actual distribution channel decision is a fundamental decision as it affects all aspects of the international marketing strategy (Doole & Lowe, 2004:334).

2.7.4.2 Managing foreign distribution

Firms that sell through trading companies, export management companies or other indirect methods must accept the foreign distribution offered by these intermediaries. The same is true for those that sell through licensing and, generally, for those engaged in direct exporting. The firms having direct responsibility for their foreign-market distribution are those having marketing subsidiaries or complete manufacturing and marketing operations there. Having responsibility is different from having complete control. The first step in managing foreign distribution is to identify the firm's goals in the foreign market. Then the marketer must identify the specific tasks to be performed by the channel in that market. What role is the channel expected to play? Activities would include inventory, promotion, credit extension, physical distribution or service, among others. There is seldom a perfect match between the firm's specifications and what is available in the market, thus compromise is often necessary (Doole & Lowe, 2004:334).

2.7.4.3 Factors in channel management

According to Czinkota and Ronkainen (2007:435, 436) the complicating factors that separate manufacturers and distributors fall into the following categories:

- *Ownership* – manufacturers and distributors are usually independent entities and distributors can carry the products of more than one manufacturer. The remedy may be to offer good incentives.
- *Geographic, cultural and economic distance* – bridged through effective two-way communication

Different rules of law and regulations may restrict the manufacturer in terms of control (Czinkota & Ronkainen, 2007:436).

2.7.4.4 Exit strategies

Exit strategies relate to the part of the management process in adjusting channels via channel evaluation. This can take the form of channel shift by exiting a particular channel, channel modification by changing individual members, role/relationship modification or the reward structure (Czinkota & Ronkainen, 2007:441, 442).

International companies have to be aware of the high costs attached to the liquidation of foreign operations. These include substantial amounts of severance pay to be dispensed to employees, and any loss of credibility in other markets which can hurt the company's future prospects (Gillespie et al., 2004:251, 252):

2.7.5 E-COMMERCE

Conducting business over the World Wide Web is generally referred to as electronic-commerce (e-commerce) and the use of the Internet is seen as a mode of entry into foreign markets. However, this requires that the elements of the marketing mix be given careful consideration because of the diverse audience that could possibly receive the message. The marketer has to be sensitive to government's role in e-commerce, as no real consensus exists on the taxation of e-commerce, especially in the case of cross-border transactions. For some industries the Internet is both an opportunity and a threat, and it offers the opportunity to gather significant amounts of information that was not previously possible for businesses prior to the development of the Internet. The research is particularly important given the changing nature of consumer behaviour related to the advent of the Internet and the nature of the buying process. It also provides a new and efficient method of distribution and customisation of products. However, failure to provide immediate feedback and interaction to the customer could lead to immediate failure. At the same time, it can be a channel for intellectual property violations (Burgess & Bothma, 2007:387, 405; Czinkota & Ronkainen, 2007:442–445).

2.7.6 DISTRIBUTION TRENDS

The manufacturer's own situation varies from market to market (Terpstra & Sarathy, 2000:425–431, 441). As economies develop, their distribution structures and trends change as wholesaling and retailing become modernised and the channel members

become more powerful. Direct marketing remains important and telemarketing is growing. Discounting and retail price competition is spreading to more countries. Marketing via the Web is the most dynamic development to watch, as distribution systems throughout the world are continually evolving in response to economic and social changes. It is important to consider not only the state of distribution today but also the expected state of distribution systems in the future (Gillespie et al., 2004:367, 375).

Logistics and supply chain management will be discussed next.

2.7.7 LOGISTICS AND SUPPLY CHAIN MANAGEMENT

For the international firm, customer locations and sourcing opportunities are widely dispersed. The physical distribution and logistics aspects of international marketing are, therefore, of great importance, as they involve planning, implementing and controlling the physical flow of materials and finished products from points of origin to points of use. On a global scale, the task becomes more complex, because so many external variables have an impact on the flow of materials or products. As geographic distances to foreign markets grow, competitive advantages are often derived from a more effective structuring of the logistics system either to save time or costs or to increase a firm's reliability. The emergence of logistics as a means of achieving competitive advantage is leading companies to focus increased attention on this vital area (Burgess & Bothma, 2007:325; Czinkota & Ronkainen, 2007:524).

2.7.7.1 Defining of international logistics

According to Terpstra and Sarathy (2000:432–433, 441) logistics can be defined as including those activities involved with the choice of the number and location of facilities to be used and the materials or product to be stored or transported from suppliers to customers in all the firm's markets. International logistics is the design and management of a system that controls the flow of materials into, through and out of the international corporation.

Two major phases in the movement of materials are of logistical importance. The first phase is materials management, or the timely movement of raw materials, parts and

supplies into and through the firm. The second phase is physical distribution, which involves the movement of the firm's finished product to its customers. In both phases, movement is seen within the context of the entire process. Stationary periods such as storage and inventory are therefore included. The growth of logistics as a field has brought to the forefront three major concepts, namely the systems concept, the total concept and the trade-off concept (Czinkota & Ronkainen, 2007:525, 526).

- *The systems concept* is based on the notion that materials-flow activities within and outside the firm are so extensive and complex that they can be considered only in the context of their interaction. The systems concept intends to provide the firm, its suppliers and its customers, both domestic and foreign, with the benefits of synergism expected from the coordinated application of size. In order for the systems concept to work, information flows and partnership trust are instrumental.
- The development of the *total cost concept* is a logical outgrowth of the systems concept. To evaluate and optimise logistical activities, cost is used as a basis for measurement. The purpose of the total cost concept is to minimise the firm's overall logistics cost by implementing the systems concept appropriately.
- *The trade-off concept* recognises the linkages within logistics systems that result from the interaction of their components. Managers can maximise the performance of logistics systems by formulating decisions based on the recognition and analysis of trade-offs.

The integration of these three concepts has resulted in the new paradigm of supply chain management, where a series of value-adding activities connect a company's supply side with its demand side. This approach views the supply chain of the entire extended enterprise, beginning with the supplier's suppliers and ending with consumers or end-users. This perspective encompasses the entire product and information and funds flow that form one cohesive link for acquiring, purchasing, manufacturing, assembling and distributing goods and services to the ultimate consumers. Advances in information technology have been crucial to progress in supply chain management. These developments open up supplier relationships for companies outside the buyer's domestic market. However, the supplier's capability of providing satisfying goods and services will play the most critical role in securing long-term contracts (Czinkota & Ronkainen, 2007:525).

2.7.8 THE IMPACT OF INTERNATIONAL LOGISTICS

The choice of transportation either by sea, road, rail or air or a combination of these is often dictated by the nature of the goods being transported and the costs relating to these various modes. Road transport is fast, flexible and appropriate for reasonably sized consignments. Rail is less flexible, but good for long distances and bulk consignments. Sea is often the most affordable mode of transport. Air is the fastest but often the most expensive mode of transport and most suited to cargo that is of high value, yet low volume (Burgess & Bothma, 2007:440).

Logistics costs comprise between 10 and 30% of the total landed cost of an international order. International firms have already achieved many of the cost reductions that are possible in financing and production, and they are now looking at international logistics as a competitive tool. Close collaboration with suppliers is required in order to develop a just-in-time inventory system, which in turn may be crucial to maintaining manufacturing costs at a globally competitive level. Basic differences, such as distance, currency variation and transportation modes, among others, emerge in international logistics because the corporation is active in more than one country. Within each country, the firm also faces specific logistical attributes that may be quite different from those experienced at home. Management must consider all these factors in order to develop an efficient international logistics operation (Czinkota & Ronkainen, 2007:526).

Inputs from respondents regarding the impact of logistics costs as a factor of constraint impacting on market access into foreign markets for South African manufactured light vehicles will be obtained via the empirical survey forming part of this study.

2.7.9 INTERNATIONAL TRANSPORTATION ISSUES

International transportation is of major concern to the international firm because transportation determines how and when goods will be received. The transportation issue can be divided into three components, namely infrastructure, the availability of modes and the choice of modes (Czinkota & Ronkainen, 2007:527).

2.7.9.1 Transportation infrastructure

In industrialised nations, firms can count on established transportation networks. Internationally, however, major infrastructural variations may be encountered. Variations also exist in the frequency of transportation services where a particular port may not be visited by a ship for weeks or even months. All of these infrastructural concerns must be taken into account in the initial planning of the firm's transportation service (ibid, 2007:527).

2.7.9.2 Availability of modes

Even though goods are shipped abroad by rail or truck, international transportation frequently requires ocean or airfreight modes, which many corporations rarely use domestically. Water transportation is a key mode for international freight movements. The greatest constraint in international ocean shipping is the lack of ports and port services. This problem is often found in developing countries, where local authorities lack the funds to develop facilities (ibid, 2007:529, 530).

2.7.9.3 Choice of modes

The international marketer must make the appropriate selection from the available modes of transport. This decision will be largely influenced by the needs of the firm and its customers and include (ibid, 2007:531–532):

- *Transit time* – the period between the departure and arrival of the carrier, which varies significantly between ocean freight and airfreight.
- *Predictability* – which has a major influence on corporate strategy. Greater predictability can assist in lower levels of inventory safety stock and can also serve as a useful tool for foreign distributors, who are able to make more precise delivery promises to their customers.
- *Cost* – is a major consideration in choosing international transportation modes. The effect of transportation cost on price and the need for product availability abroad must be considered.
- *Non-economic factors* – these often enter the picture when selecting a proper form of transportation.

2.7.10 INTERNATIONAL STORAGE ISSUES

Although international logistics is discussed as the movement or flow of goods, a stationary period is involved when merchandise becomes inventory stored in warehouses. On the one hand, customers expect quick responses to orders and rapid delivery and accommodating a customer's expectation may require locating many distribution centres around the world. On the other hand, warehousing space is expensive and the larger the volume of inventory the higher the carrying cost. The international marketer must consider the trade-offs between service and cost to determine the appropriate levels of warehousing (Czinkota & Ronkainen, 2007:537).

In some countries, the benefits derived from lower factor costs, such as labour, may be offset by high duties and tariffs. As a result, the location of manufacturing and storage facilities in these countries may prove uneconomical (Czinkota & Ronkainen, 2007:536, 537). The existence of foreign trade zones can be quite useful to the international firm (Terpstra & Sarathy, 2000:436).

2.7.11 MANAGEMENT OF INTERNATIONAL LOGISTICS

Consumers are demanding ever quicker delivery and ever more added value from their products that increasingly require just-in-time (JIT) distribution. The product cycle from manufacturer to payment is becoming shorter, a trend that is likely to accelerate. Global competition has meant a downward pressure on costs and technological advances mean that logistics specialists are able to offer increasingly sophisticated services to exporters that firms cannot provide in-house (Doole & Lowe, 2004:354–359). Logistics management may be centralised, decentralised or outsourced, which will be discussed next.

2.7.11.1 Centralised logistics management

An important characteristic of the centralised approach to international logistics is the existence of headquarters staff that retains decision-making power over logistics activities affecting international subsidiaries. The international centralised decision-making process leads to an overall logistics management perspective that can dramatically improve profitability by 1) more stable production levels at plants in different countries; 2) lower-cost distribution, resulting in part from the possibility of

combining small orders into container or planeload lots; and 3) better customer-service levels in international markets (Terpstra & Sarathy, 2000:439, 440; Czinkota & Ronkainen, 2007:541).

2.7.11.2 Decentralised logistics management

When a firm serves many international markets that are diverse in nature, total centralisation would leave the firm unresponsive to local adaptation needs. If each subsidiary is made a profit centre in itself, each one carries the full responsibility for its performance, which can lead to greater local management satisfaction and to better adaptation to local market conditions (Czinkota & Ronkainen, 2007:541).

2.7.11.3 Outsourced logistics

While the choice is open to maintain either centralised or decentralised in-house logistical management, a growing preference among international firms is to out-source, which means to employ outside logistical expertise. Often referred to as contract or third-party logistics, this is a rapidly expanding industry. The main thrust behind the idea is that individual firms are experts in their industry and should therefore concentrate only on their operations. Third-party logistics providers, on the other hand, are experts solely at logistics, with the knowledge and means to perform efficient and innovative services for those companies in need. The goal is improved service at equal or lower cost (ibid, 2007:542).

In addition to product, price and place, the fourth element of the export marketing mix, namely promotion, will be discussed next.

2.8 INTERNATIONAL COMMUNICATIONS AND GLOBAL PROMOTIONAL STRATEGIES

One of the major objectives of most businesses is to become customer centric. Effective communication is particularly important in international marketing because of the geographic and psychological distances that separate a firm from intermediaries and customers. Communication therefore plays a vital role in bridging this distance. Communication is defined as a process of establishing a commonness of thought between a sender and a receiver. This process extends beyond conveying of ideas to include persuasion and thus enables the marketing process to function more

effectively and efficiently. Ideally, marketing communication is a dialogue that allows organisations and consumers to achieve mutually satisfying exchange agreements. The definition emphasises the two-way nature of the process, with listening and responsiveness as integral parts (Czinkota & Ronkainen, 2007:386).

2.8.1 THE MARKETING COMMUNICATIONS PROCESS

According to Czinkota and Ronkainen (2007:387, 388) effective communications requires three elements, namely the sender, the message and the receiver, connected by a message channel. The sender needs to study receiver characteristics before encoding the message in order to achieve maximum impact, which means converting the message into a symbolic form that is properly understood by the receiver. Once a sender has placed a message into a channel or a set of channels and directed it to the intended destination, the completion of the process is dependent on the receiver's decoding, that is, transforming the message symbols back into thought. The success of the outcome is determined by how well the objectives have been met in generating more awareness, a more positive attitude or increased purchases. Regardless of whether the situation calls for interpersonal or mass communications, the collection and observation of feedback is necessary to analyse the success of the communication effort.

2.8.2 MARKETING COMMUNICATIONS STRATEGY

The first step in developing a communications strategy is assessing what company or product characteristics and benefits should be communicated to the export market. This requires constant monitoring of the various environments and target audience characteristics. Because of monetary constraints that most exporters face, promotional efforts should be concentrated on key markets. A firm's resources can be combined and adapted to market opportunities. The tools available to form a total communications program for use in targeted markets are referred to as the promotional mix which consist of the following (Burgess & Bothma, 2007:348–353; Czinkota & Ronkainen, 2007:392–396):

- *Advertising* – any form of non-personal presentation of ideas, goods, or services by an identified sponsor. Mass communication is predominantly used.

- *Personal selling* – the process of assisting and persuading a prospect to buy a good or service or to act on an idea through use of person-to-person communication with intermediaries and/or final customers.
- *Publicity* – any form of non-paid, commercially significant news or editorial comment about ideas, products or institutions.
- *Sales promotion* – direct inducements that provide extra product value or incentive to the sale force, intermediaries or ultimate consumers.
- *Sponsorship* – the practice of promoting the interests of the company by associating it with a specific event or a cause.

The use of these tools will vary by company and by situation. The choice of the promotional mix tools in a cost-effective manner leads to either a pull or a push emphasis in marketing communications. A pull strategy is characterised by a relatively greater dependence on mass communication tools. These include sales promotion and advertising directed at the final buyer or end-user of a product or service. A push strategy focuses on the use of personal selling (Gillespie et al., 2004:382; Czinkota & Ronkainen, 2007:394; Hill, 2007:596). Although promotions yield an incontrovertible enhancement in sales, the effect is generally short-lived. The reallocation of spending away from long-term brand building towards temporary price reductions is predicated on a short-term mindset.

According to Lodish and Mela (2007:107, 108) the consequences of short-term sales approaches include:

- *Changes in consumer behaviour* in encouraging them to wait for the next sale rather than purchase a product at full price.
- *Diluted brand equity* by focusing consumer's attention on extrinsic brand cues such as price instead of intrinsic cues such as quality.
- *Competitive response* when one firm increases its discounts and others follow suit. As a result, individual promotions increase but overall sales do not, further lowering everyone's margins.

Together, these factors can substantially diminish the usefulness of sales promotions.

Consumers are very subjective and the automotive industry attempts to influence their customers in every possible way. The difference between a brand and a product is that a product is something that is made in a factory and a brand is something that is bought by a customer. This is reflected in automotive advertising around the world, with increasing emphasis on brand-building imagery and lifestyle association, and less and less on individual product attributes and engineering features. Car purchasing decisions vary by country, age and gender and advertising messages must be tailored closely to target audiences to avoid wasting money (Haynes as cited by Lamprecht, 2006a:170).

2.8.3 COMMUNICATIONS TOOLS

The main communications tools used by exporters to communicate with the foreign marketplace from their domestic base are business and trade journals, directories, direct advertising, the Internet, trade fairs and missions, and personal selling (Czinkota & Ronkainen, 2007:396).

Promotion is the most visible, as well as the most culture bound, of the marketing functions. In the other functions, the firm relates to the market in a quieter, more passive way, while with the promotional function the firm stands up and speaks out, wanting to be seen and heard. Promotion is defined as communication by the firm with its various audiences with a view to informing and influencing them. In international marketing, promotion plays the same role as it does in domestic operations, that is, communication with the firm's audiences to achieve certain goals. It is also aimed at selling products and enhancing the image of the company (ibid, 2007:396).

Advertising is the paid communication of company messages through impersonal media. The message may be audio, as in radio; visual, as in billboards or magazines; or audiovisual, as in television or cinema advertising. Advertising is used everywhere to achieve various marketing goals, which include paving the way for the sales force, increasing distribution, selling products and improving brand image. In every country, advertising is just one element of the marketing mix and its role will depend on the other elements of the mix in that country (ibid, 2007:396).

Technology is in place to facilitate global communication efforts, but serious challenges still remain in the form of cultural, economic, ethnic, regulatory and

demographic differences between various countries and regions (Terpstra & Sarathy, 2000:448; Czinkota & Ronkainen, 2007:576).

2.8.4 TARGET AUDIENCE

Global marketers face multiple audiences beyond the customers. The expectations of these audiences have to be researched to ensure the appropriateness of campaign decision making. Each can be reached with an appropriate mix of tools. Some campaigns may be targeted at multiple audiences and an important aspect of research is to determine similarities between multimarket target audiences. If such exist, pan-regional or global campaigns can be attempted (Czinkota & Ronkainen, 2007:577).

2.8.5 CAMPAIGN OBJECTIVES

Nothing is more essential to the planning of international promotional campaigns than the establishment of clearly defined, measurable objectives. These objectives can be divided into global, regional and local objectives. The objectives that are set at the local level will be more specific and will set measurable targets for individual markets. These objectives may be product or service related or related to the entity itself. Typical goals are to increase awareness, enhance image and improve market share in a particular market. Whatever the objective, it has to be measurable for control purposes. Local objectives are typically developed as a combination of headquarters and country organisation involvement. Basic guidelines are initiated by headquarters, whereas local organisations set the actual country-specific goals. These goals are subject to headquarters approval, mainly to ensure consistency (ibid, 2007:579).

2.8.6 THE BUDGET

Setting the international advertising budget is one of the controversial aspects of advertising in that the proper method for setting the advertising budget has to be determined. This is as much of a problem domestically as it is internationally as the promotional budget links established objectives with media, message and control decisions. Ideally, the budget would be set as a response to the objectives to be met, but resource constraints often preclude this approach and available funds may dictate the basis from which the objective task method can start. Furthermore, advertising

budgets should be set on a market-to-market basis because of competitive differences across markets. It is difficult to apply the various formulas for determining the advertising budget in the firm's foreign markets and, because of this, the percentage-of-sale approach is the most common. Besides its convenience, this method has the advantage of relating advertising to the volume of sales in a country and thus keeping advertising from getting out of hand. Matching competitors' advertising outlays, the competitive-parity approach, is used by some companies. The advertising budget in a country is a function of its overall promotional mix there, local media availability and the firm's own level of involvement in a country (Terpstra & Sarathy, 2000:470–472; Czinkota & Ronkainen, 2007:579, 580).

2.8.7 MEDIA STRATEGY

A variety of media are available across the world. Difficulties arise because not all media are available in all countries or, if they are available, their technical capability to deliver a message to the required audience may be limited. The availability of various media for advertisers, the product or service itself and advertising restrictions, as well as the media habits of the target country must be considered (Gillespie et al., 2004:421, 427; Czinkota & Ronkainen, 2004:580–584).

The firm's media configuration often varies from country to country because of government restrictions or the media infrastructure in the country. Some firms are able to use international media for multicountry coverage, but local media predominate for most international marketers (Terpstra & Sarathy, 2000:477; Hill, 2007:597).

2.8.8 IMPLEMENT GLOBAL MARKETING

The successful global marketers of the future will be those who can achieve a balance between local and regional/global concerns. Marketers who have tried the global concept have often run into problems with local differences. Early on, in particular, global marketing was seen as a standardised marketing effort dictated to the country organisations by headquarters (Czinkota & Ronkainen, 2007:204).

2.8.8.1 Challenges of global marketing

Pitfalls that handicap global marketing programmes and contribute to their suboptimal performance include market-related reasons. These include insufficient research and a tendency to overstandardise, as well as internal reasons, such as inflexibility in planning and implementation. Globalisation by design requires a balance between sensitivity to local needs and deployment of technologies and concepts globally. Without local commitment, no global programme will survive (ibid, 2007:204).

2.8.8.2 Localising global marketing

The successful global marketers of the new century will be those who can achieve a balance between country managers and global product managers at headquarters. This balance may be achieved by a series of actions relating to management processes, organisational structures and overall corporate culture (ibid, 2007:205).

The multi-domestic or multinational market concept focuses on maximising the company's effectiveness and efficiency in exploiting economies of scale, experience and skills in marketing, production and logistics. A company adopting such an orientation assumes that foreign market opportunities are as important as home market opportunities. By facilitating the flow of information, ideas are exchanged and organisational values strengthened. Overall, the best approach against the emergence of the not-invented-here syndrome is the use of various motivational policies such as the following (Gillespie et al., 2004:218; Czinkota & Ronkainen, 2007:205):

- Ensuring that local managers participate in the development of marketing strategies and programmes for global brands.
- Encouraging local managers to generate ideas for possible regional or global use.
- Maintaining a product portfolio that includes local as well as regional and global brands.
- Allowing local managers control over their marketing budgets so that they can respond to local customer needs and counter global competition.

For many companies, regionalisation represents a more manageable compromise between the extremes of global standardisation and multi-domestic strategies. The

key to developing effective regional strategies must be in deciding what makes the region distinctive and in what ways the marketing strategy for one region should be differentiated from the others. A number of companies are taking the opportunity from the formation of regional trading blocs and are including regional objectives and plans as a significant part of their worldwide strategy. The prime motivation in the formation of the regional trading blocs is to enable indigenous companies to build the critical mass of activity within the home region necessary to enable them to compete effectively in global markets (Doole & Lowe, 2004:191–194).

2.8.9 THE PROMOTIONAL MESSAGE

The marketer must determine what the consumer is really buying, that is, the customer's motivations (Czinkota & Ronkainen, 2007:587).

The ideal situation in developing message strategy is to have a world brand – a product that is manufactured, packaged and positioned similarly around the world. Marketers may develop multiple broadcast and print ads from which country organisations can choose the most appropriate for their operations, although product-related regulations will affect advertising messages. Marketers may also want to localise their international symbols while aesthetics also play a role in localising campaigns. The use of one agency, or only a few agencies, ensures consistency. The stage of economic development, and therefore the potential demand for and the degree of awareness of the product, may vary and differentiate the message from one market to another. Whereas developed markets may require persuasive messages to combat other alternatives, a developing market may require a purely informative campaign (ibid, 2007:587–591).

2.8.10 THE CAMPAIGN APPROACH

The alternatives for allocating decision-making authority in respect of the campaign approach range from complete centralisation to decentralisation to some blend of these two alternatives (Gillespie et al., 2004:428, 432). With complete centralisation, the headquarters level is perceived to have all the right answers and has adequate power to impose its suggestions on all of its operating units. Decentralisation involves relaxing most of the control over foreign affiliates and allowing them to pursue their

own promotional approaches. Benefits of centralisation include potential economies of scale, international coordination and higher quality, while benefits of decentralisation include local adaptation and motivation of the local subsidiary. Most firms compromise between the two extremes, making coordination more common. The important question is not who should make decisions but how advertising quality can be improved at the local level. The firm must also decide how to advertise in markets where it is represented by independent licensees or distributors. Cooperative programmes with the local licensee or distributor appear to be the most common and effective approach (Terpstra & Sarathy, 2000:477, 478; Czinkota & Ronkainen, 2007:591–594).

2.8.11 MEASUREMENT OF ADVERTISING EFFECTIVENESS

Evaluating advertising is more difficult in foreign markets than at home. Three factors restrict the measurement of advertising's effectiveness in world markets, namely the small size of the market, a lack of facilities, and the distance and communications gap between the market and international marketers (Terpstra & Sarathy, 2000:473). The measures most used are sales, awareness, recall, executive judgement, intention to buy, profitability and coupon return, regardless of the medium used. Advertisers are pushing for universally accepted parameters to compare audiences in one country to those in another (Czinkota & Ronkainen, 2007:594–596).

Although advertising is often the most prominent element in the promotional mix of the international marketer, for some firms, especially those in industrial marketing, it is a minor form of promotion. The use of other international promotional elements will be discussed next.

2.8.12 OTHER INTERNATIONAL PROMOTIONAL ELEMENTS

Other promotional considerations to fit the conditions of the individual markets include (Terpstra & Sarathy, 2000:509, 510):

- *The marketing mix as promotion* – each of the four Ps of the marketing mix, namely product, price, place and promotion, can attract the customer and therefore serve as promotion. Product modifications abroad can persuade customers to buy the firm's products. By going to more direct distribution

abroad, the firm can usually increase sales and respond better to the local market. Various pricing and credit terms can also make the firm's marketing more productive.

- *Special forms of international promotion* – government assistance is a special form of promotion in international marketing. Many governments support their industries in export marketing and this assistance usually takes three forms, namely information, financing and promotion.
- *Public relations* – is concerned with image. The firm is trying to present itself in a favourable light with one or more of its constituents. The first task in successful public relations is research to familiarise the firm with all the constituencies that can affect its success in the market. The second is designing a company programme and behaviour appropriate to the market. The new mega-marketing concept suggests that firms should not only respond to the environment but should also try to manage it, thus achieving more favourable outcomes in the marketplace through political power and public opinion – the fifth "P" of marketing.

Promotion methods that are oriented largely toward business and government markets include international trade fairs, bidding procedures for international projects and consortium selling.

- *International trade fairs* – Participation in international trade fairs has become an important aspect of business-to-business marketing abroad. Exhibitions are regarded as an excellent medium for advertising, sales, marketing and brand exposure. For the visitor, shows are a convenient, cost-effective way to gather the information for making sound purchasing decisions. For exhibitors, exhibitions are an important opportunity to develop sales leads and meet decision makers (DTI, 2004:43; Burgess & Bothma, 2007: 349).
- *Trade missions* – These are organised visits to a country or region of a group of business managers from a number of firms from the same region or industry. They are often subsidised by national or local government (Doole & Lowe, 2004:309; Burgess & Bothma, 2007:350).
- *Selling through a bidding process* – Typically, companies actively seek new projects and then move on to prequalify for the particular project(s) they

locate before a formal project bid or tender is submitted (Gillespie et al., 2004:393, 394).

- *Consortium selling* – Because of the high stakes involved in marketing equipment or large projects, companies frequently band together to form a consortium. A consortium is a group of firms that share a certain contract or project on a pre-agreed basis but act as one company toward the customer. A consortium can share the risk and can also enhance the competitiveness of its members if they are involved in turnkey projects. A turnkey project is one in which the supplier offers the buyer a complete solution so that the entire operation can commence at the turn of a key (Gillespie et al., 2004:394; Hill, 2007:488).
- *Forms of promotion other than selling and advertising* can play a role in marketing. Direct sales are not only a distribution strategy but a promotion strategy as well, because they involve communicating directly with the consumer. Other forms of global promotion are sales promotion, sponsorships, telemarketing and word of mouth. A company's public relations function embraces marketing activities that enhance brand equity by promoting goodwill toward the organisation (Doole & Lowe, 2004:315, 318; Gillespie et al., 2004:395–401).

2.8.13 INFORMATION TECHNOLOGY

Technology is a major driver of both the pace and magnitude of change in international marketing. It provides more immediate methods of gathering marketing information from around the world and quicker and more effective methods of analysis and prediction of future customer needs and wants. It also provides the enabling mechanism by which effective and integrated strategic responses can be made to the changes. It is therefore an essential element in the development of the international marketing strategy. Technology influences, as well as underpins, the choice of implementation strategies of the marketing mix, facilitates the process of learning and sharing best practice, and enables more effective control of the firm's diverse international activities. Consumer e-marketing, and especially innovative business models, such as online auctions, attract the interest of global consumers and facilitate new routes to the market. Business-to-business e-commerce models such as e-

procurement, however, are having the greatest effect on international marketing (Doole & Lowe, 2004:403, 429).

The most significant international marketing strategy development that is facilitated by technology is business solution integration. As competition increases, so firms must seek to find new sources of competitive advantage, secure ever-lower costs, increase their speed of action and offer new innovative products and services perceived by customers to be valuable. The strategy to achieve these outcomes is based on the effective integration of knowledge management, supply chain management, value chain integration and customer relationship management (ibid, 2004:416–419)

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Technology has shifted the balance of power from suppliers to customers and organisations should adopt a customer-led approach. This means that they should develop innovative approaches to sales, marketing and overall corporate strategy that are driven by what customers need and want. The objective of being customer led is to identify, acquire, retain and grow quality customers. Technology provides the mechanisms by which strategic planning of a customer-led approach can be effectively managed (ibid, 2004:420–428).

2.8.14 FUTURE DYNAMICS OF INTERNATIONAL MARKETING

Marketers traditionally have monitored trends in industrialised western countries. However, assessing the relevance of a firm's theory of the business increasingly requires careful consideration of opportunities and challenges in less industrialised countries. Whereas economic and population growth is slowing and market saturation is increasing in industrialised western economies, many less industrialised countries have large, fast-growing economies with low market saturation. As a result, marketers of products are being forced to learn more about the less industrialised countries in order to develop global marketing strategies that also appeal to these countries (Burgess & Bothma, 2007:465).

Observing changes and analysing how best to incorporate them in the international marketing mission is essential. International marketing is about identifying the needs of customers around the world and then satisfying these needs better than one's competitor. Consequently, the future of international marketing will be shaped by the

way global customers' needs are changing and the way global competition is evolving to satisfy those needs. The rise of global markets means that the total market size for new products is expanding. Global competition is intense and likely to become more so. Key competitive factors include wage rates, productivity, cost of capital, technology, management, exchange rates, government policy and regulations, and country-specific factors. As firms become larger in size, they seek to sell to all major markets in order to spread their growing fixed costs over a larger sales volume. Global competition is not limited to competing for sales and market share, but also involves competing for knowledge and scarce resources. In any industry, multinationals avidly seek to nullify their competitors' technological edge. These frequent changes are what make international marketing so fascinating to those who are active in the field (Terpstra & Sarathy, 2000:708–721; Czinkota & Ronkainen, 2007:10, 11).

Planning, implementation and control concludes the marketing process and will be discussed next.

2.9 GLOBAL MARKETING MANAGEMENT

Having analysed the characteristics of the target market(s), the mix of marketing variables, namely product, price, place and promotion that will best serve each target market can be specified. Czinkota and Ronkainen (2007:215) state that as companies evolve from purely domestic entities into multinationals, their organisational structure and control systems must change to reflect new strategies. With growth comes diversity in terms of products and services, geographic markets and personnel, leading to a set of challenges for the company. Two critical issues are basic to addressing these challenges, namely:

- the type of organisation that provides the best framework for developing worldwide strategies, while at the same time maintaining flexibility with respect to individual markets and operations, and
- the type and degree of control to be exercised from headquarters to maximise total effort.

The purpose of global market management involves careful planning, organisation, implementation and controlling of the best combination of the marketing mix to achieve success, which will be discussed next.

2.9.1 PLANNING

Planning consists of identifying systematic steps that will help the company formulate detailed actions to implement broad strategies. The basic elements of the marketing plan include the environment and the company's situation in each market, the company's objectives, and the strategy and tactics that will help it achieve its objectives. The increasingly turbulent environment resulting from more rapid changes in technology, competition, consumer taste and fashion means that the traditional systems and processes for preparing the analysis, strategy development and action plans take too long. Timescales must be reduced to make sure that the plan is still relevant when it is being implemented. Plans have a short-range and a long-range component: they should be developed for each foreign market and, within the context of a global plan, integrate country markets and other areas of activity. These activities include manufacturing, technology planning and R&D (Terpstra & Sarathy, 2000:667; Doole & Lowe, 2004:209).

2.9.2 ORGANISATION AND IMPLEMENTATION

The basic functions of an organisational structure are to provide 1) a route and locus of decision-making and coordination; and 2) a system for reporting and communications (Czinkota & Ronkainen, 2007:215). Planning cannot work without a well-designed organisational structure to implement plans. As the scope of a company's international business changes, its organisational structure must be modified in accordance with the internal and external environments. The internal environment includes corporate goals, orientation towards home or foreign markets, human resources, diversity of markets served and flexibility. The external environment includes geographic distance to markets, time zone differences, types of consumers and government regulations. The dynamic nature of business requires that a company constantly re-evaluate its organisational structure and processes and make any modifications necessary to meet its objectives. The basic choice is between centralisation and decentralisation: in some cases, manufacturing may be centralised, with technology, development, product adaptation and marketing decentralised. As the environment changes, organisational structure will also have to change (Terpstra & Sarathy, 2000:657, 667; Gillespie et al., 2004:465; Hill, 2007:451).

According to Czinkota and Ronkainen (2007:215) the types of organisational structure that companies use to manage foreign activities can be divided into three categories based on the degree of internationalisation:

- *Little or no formal organisational recognition of international activities*. This category ranges from domestic operations handling an occasional international transaction on an ad hoc basis to separate export departments.
- *International division*. Firms in this category recognise the ever-growing importance of international involvement.
- *Global organisations*. These can be structured by product, area, function, process, or customer.
    - Global product structure – product divisions are responsible for all manufacturing and marketing worldwide.
    - Global area structure – geographic divisions are responsible for all manufacturing and marketing in their respective areas.
    - Global functional structure – functional areas such as production, marketing, finance and personnel are responsible for the worldwide operations of their own functional areas.
    - Global customer area – operations are structured on the basis of distinct worldwide customer groups.
    - Mixed or hybrid structure – may combine the alternatives.

According to Hill (2007:444, 445) there are four main arguments for centralisation: 1) centralisation can facilitate coordination; 2) it can help ensure that decisions are consistent with organisational objectives; 3) by concentrating power and authority in one individual or management team, centralisation can give top-level managers the means to bring about the major organisational changes needed; and 4) centralisation can avoid the duplication of activities that occurs when similar activities are carried on by various sub-units within the organisation.

Hill (2007:444, 445) also states that there are five main arguments for decentralisation: 1) top management can become overburdened when decision-making authority is centralised, and this can result in poor decisions; 2) motivational research favours decentralisation as people are willing to give more to their jobs when

they have a greater degree of freedom and control over their work; 3) decentralisation permits greater flexibility as decisions do not have to be referred up the hierarchy; 4) it can result in better decisions as decisions are made closer to the spot; and 5) it can increase control.

Whatever the choice of structure may be, implementation of the planned strategies is a critical factor for determining success.

Doole and Lowe (2004:205–207) identify the macro pyramid, the umbrella and the interglomerate structures based on the three levels of management within the organisation, namely strategic, management and the operational unit. The structures are described as follows:

- *Macro pyramid* – found in multinational organisations which have strong headquarters. The organisation is usually highly centralised and the foreign strategic business units operate at the management or operational levels of the organisation. The implications that this structure have for marketing are that: 1) marketing plans are produced centrally; 2) all major decisions regarding the marketing mix are taken centrally and can be slow and unresponsive to local needs; 3) marketing is standardised as much as possible; 4) the world markets for their products and services are regarded as largely the same; 5) local creativity is inhibited; 6) communication problems occur as a result of difficulty in interpreting instructions from the centre; and 7) the lack of local autonomy is a disincentive to good managers.
- *The umbrella structure* – takes the opposite view to those organisations with a macro-pyramid structure. Under the umbrella structure organisations have fully decentralised planning and control, and give full independence at all levels of management to the foreign subsidiaries. The implications for the marketing mix strategy of the local market are: 1) an effective local marketing function that can develop local marketing plans; 2) market planning can respond to local environmental development changes; 3) different strategies will be followed for each market; 4) there is little chance of a global strategy; and 5) there can be considerable duplication.

- *The interglomerate* – embraces multimarkets, multiproducts and multitechnologies. Thus, no attempt is made by the centre to develop strategies for the individual strategic business units, which are likely to be international businesses in their own right. Owing to the diversity of the firm's activities the centre takes no significant, active management role, and is concerned purely with financial planning and control. The implications for international marketing are that: 1) interglomerates are finance driven; 2) the marketing function will not be represented at the strategic level; and 3) corporate and marketing strategies are the sole responsibility of the strategic business.

Making good decisions and making them happen quickly is the hallmark of high-performing organisations. According to Rogers and Blenko (2006:53–61), the most effective organisations perform well on the major strategic decisions. These include which markets to enter or exit, which businesses to buy or sell, and where to allocate capital and talent. However, they only truly perform when it comes to the critical operating decisions requiring consistency and speed. These include how to drive product innovation, the best way to position brands and how to manage channel partners.

Good decision-making depends on assigning clear and specific roles. The companies that succeed tend to follow a few clear principles including: 1) some decisions matter more than others; 2) action is the goal; 3) ambiguity is the enemy; 4) speed and adaptability are crucial; 5) decision roles trump the organisational chart; 6) a well-designed organisation reinforces roles; and 7) practising beats preaching. The conclusion is that a good decision executed quickly beats a brilliant decision implemented slowly (Rogers & Blenko, 2006:53–61).

2.9.3 CONTROLLING

According to Czinkota and Ronkainen (2007:234) the function of the organisational structure is to provide a framework in which objectives can be met. However, a set of instruments and processes is needed to influence the behaviour and performance of organisation members to meet the goals. Control is the cornerstone of management. With growth comes diversity in terms of products and services, geographic markets,

and personnel, leading to a set of challenges for the company and control provides the means to direct, regulate and manage business operations. It is also necessary to monitor progress against plans and budgets and effective communication systems facilitate control. A control system has three basic elements: 1) the establishment of standards; 2) the measurement of performance against those standards; and 3) the analysis and correction of any deviations from the standards. There are a number of benefits to an effective strategic control system: it encourages higher standards of performance, forces greater clarity and realism and permits corporate management to intervene when necessary. Moreover, it ensures that the financial objectives do not overwhelm the strategic objectives, it encourages clearer definition of responsibilities making decentralisation work more effectively, and it provides more motivation for managers (Doole & Lowe, 2004:208, 423; Gillespie et al., 2004:460, 461; Hill, 2007:458,459).

Structures and control mechanisms need to operate in internationally defined relationships between the firm's headquarters and subsidiaries and provide the channels through which these relationships develop. The most fundamental test of organisational design is whether there is a fit with the company's overall marketing strategy and whether it reflects the strengths of the entities within the organisation. International firms can choose from a variety of organisational structures, ranging from a domestic operation to a fully-fledged global organisation. The choice will depend primarily on the degree of internationalisation of the firm, the diversity of international activities, and the relative importance of the product, area, function and customer variables in the process (Czinkota & Ronkainen, 2007:234–240).

Organisations that function effectively still need to be reviewed periodically to ensure that they will remain responsive to changing environments. The control function is of increasing importance because of the high variability in performance that results from divergent local environments and the need to reconcile local objectives with the corporate goal of synergism. It is important to grant autonomy to country organisations so that they can be responsive to local market needs, but it is equally important to ensure close cooperation between units. Controls require great sensitivity to behavioural dimensions and to the environment and the measurements used must be

appropriate and must reflect actual performance rather than marketplace vagaries (ibid, 2007:234–240).

2.10 SUMMARY OF CHAPTER 2

Chapter 2 focused on the theoretical principles underlying international marketing strategies and competitiveness. Countries trade because of their absolute, comparative or competitive advantages. Both firms and individuals are greatly affected by international trade and, willing or unwilling, they are participating in global business affairs. Marketing is an economic activity which is affected by the international marketing environment and is described as the interaction between firms and the marketplace, either in the domestic country, in single foreign markets, multiple foreign markets, regions or the entire global market. A thorough understanding of culture, the economic environment and the political and legal environment of home and host countries is imperative for reaching customers globally in an effective way.

Globalisation has resulted in opportunities as well as threats for firms, industries and countries. Strategic decisions are required that incorporate an external analysis, an internal analysis as well as the identification and selection of an appropriate strategy to maximise success and minimise risks. The global environment is dynamic and firms, industries and countries need a successful international marketing strategy to achieve results as far as their respective capabilities are concerned. Planned and organised research is thus required to explore global market alternatives successfully.

Having analysed the characteristics of the target markets, the mix of marketing variables that will best serve each market can be specified. The marketing variables, known as the four Ps, are product, price, place and promotion. The aim of marketing management is to determine the best combination of the marketing mix with the aim to achieve success in the target markets.

The structures and control mechanisms needed to operate internationally define the relationships between the firm’s headquarters and subsidiaries and provide the channels through which these relationships develop. Hence, proper planning, organisation, implementation and control will ensure that the strengths of the entities within the organisations are maximised.

CHAPTER 3: OVERVIEW OF THE GLOBAL AUTOMOTIVE INDUSTRY

3.1 INTRODUCTION

The automotive industry is often thought of as one of the most global of all industries. Its products have spread around the world and it is dominated by a small number of companies with worldwide recognition (Humphrey & Memedovic, 2003:2). The vehicle manufacturers (original equipment manufacturers – OEMs) play a dominant role and determine the direction of the global automotive industry. The actions and developments of the OEM parent companies thus have a direct impact on the operations of their subsidiaries, such as those in South Africa.

Chapter 3 provides an overview of the early developments of the global automotive industry, highlights its key characteristics, maps the key role players globally on the supply side and the demand side, and analyses the major global trends and developments governing the global automotive industry. The roles and influences of individual OEM parent companies, in the different home and host countries where they and their subsidiaries' operations are located, are discussed and analysed. The relevance of painting a picture of the global automotive environment is to provide the context in which the South African automotive industry is operating. The focus of the chapter is therefore in line with the aim of the study, that is, to analyse the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008).

3.2 EARLY DEVELOPMENTS OF THE GLOBAL AUTOMOTIVE INDUSTRY

A century ago the car industry invented modern industrial capitalism. The car originated in Germany and early development of the industry began in France (hence the term "automobile", originally a French word) in the 1900s; however it was in America that it came of age. Henry Ford's adaptation for car making of the moving assembly line he had seen in Chicago slaughterhouses marked the birth of mass production. Ford applied these techniques to a vehicle that resembled a horse-drawn carriage, with a body laid onto a separate chassis. Thus, modern car manufacturing was born in the mid-1920s (Carson, 2004:3, 4).

Modern cars have a monocoque steel body in which the strength is built into the pressed steel floor, sides and roof. This body was invented by Edward Budd, was taken up by Dodge and Citroen in Europe, and then by all volume car manufacturers. Toyota refined the process in the 1960s through its lean-manufacturing (just-in-time) techniques. General Motors revolutionised the young car industry in the second half of the 20th century, as the company was the leader in planned obsolescence, which involves the frequent changes in design that tempt customers to switch frequently to a new model. In the 1970s, as oil prices quadrupled, the industry found itself under attack from environmentalists outraged by its products' "gas-absorbing habits". The industry was among the first to come under close government scrutiny for diverse reasons – from safety concerns to environmental issues and antitrust concerns. The car industry also found itself at the cutting edge of capitalism in another sense: as mass production techniques developed in the 1920s and 1930s, its workers increasingly pushed for unionisation (ibid, 2004:3, 4).

Today, the motorcar is the epitome of mass production, mass marketing and mass consumption, with some of the strongest brands in the world. Modern factories have to be large to reap the biggest economies of scale, around 250 000 units a year for assembly plants and one to two million units for body panels. Few other consumer-goods industries depend so heavily on a thriving second-hand market for their products (ibid, 2004:3, 4).

The next section focuses on the more recent key characteristics of the global automotive industry.

3.3 KEY CHARACTERISTICS OF THE GLOBAL AUTOMOTIVE INDUSTRY

The global automotive industry is regarded as the world's largest manufacturing industry. According to the International Organisation of Motor Vehicle Manufacturers (OICA) (2009) the level of vehicle output since 2005 is equivalent to a global turnover of about €2 trillion annually. The nine million people directly employed by the global automotive industry in producing vehicles and the parts used to assemble the vehicles account for over 5% of the world's total manufacturing employment. In addition to the direct employees, about five times more are employed indirectly in related manufacturing and service provision. The automobile industry is a major innovator,

investing almost €85 billion in research, development and production in 2007. Vehicle manufacturing and its use is also a major contributor to government revenues around the world, contributing well over €430 billion annually in the top 26 vehicle production countries globally in 2007. If vehicle manufacturing was a country it would be the sixth largest economy in the world. According to Carson (2004:3, 4), the industry's products are responsible for almost half of the world's oil consumption and its manufacturers use up nearly half of the world's annual output of rubber, 25% of its glass and 15% of its steel. The Triad economies of the USA, Europe and Japan represent approximately 70% of units sold, 85% of revenue gained and 90% of the world's automotive profits.

The automotive market can be subdivided into three major economic areas – the European Union with its 15 initial members, the USA as well as Japan – with an estimated population of 827 million and an average vehicle density of 577 vehicles per 1 000 persons. Other important countries include the emerging markets of Russia, China and India, but with a comparatively low vehicle density at 152 vehicles per 1 000 persons in Russia, seven in India and five in China. A clear distinction needs to be made between these markets. In the big three economic areas, the market will grow more through innovation and added value per vehicle, while the emerging markets are expected to expand through the number of vehicles sold, with the US$5 000 car being the target product (Venables, 2008b:50).

The global automotive industry is technologically advanced, both in terms of manufacturing processes and in its products. It is characterised by economies of scale and low unit costs despite the increasing complexity of the fundamental product, as OEMs are seeking to differentiate their products through technology and branding (Havenga as cited by Lamprecht, 2006a:15). Together with other stakeholders, the industry is committed in contributing to an integrated approach to a cleaner environment. OEMs have invested hugely in reaching the air quality improvements and in developing diverse vehicles that run on alternative fuels, as consumers and different regions of the world favour different technologies (OICA, 2009).

Given the relevance of an automotive industry to the economy, all governments, both regional and national, from across the world have been extremely active in attempting to attract international automotive companies to their regions. It is within this fast-

changing environment that many developing countries, such as South Africa, are seeking to create for themselves a role as manufacturers and exporters of vehicles and automotive components. In most cases the ultimate goal for the developing countries is to protect their balance of payments. However, some intend to establish fully-fledged automotive industries mainly via protectionist policies to foster domestic development (Lamprecht, 2006a:15).

3.4 MAPPING THE GLOBAL AUTOMOTIVE INDUSTRY STRUCTURE

The global automotive industry structure consists of a supply side and a demand side. Attempts by the key role-players in the supply side to meet the needs of the demand side find expression in the major global trends and developments governing the global automotive industry. The dynamics of the global automotive industry's supply side and demand side and the consequent impact on its structure and performance are discussed and analysed in the next section.

3.4.1 THE SUPPLY SIDE

This section provides a breakdown of the broad segments of the global automotive supply side, as well as a statistical breakdown of the main global automotive production regions, leading OEMs and top global automotive component suppliers.

3.4.2 SEGMENTS OF THE AUTOMOTIVE INDUSTRY SUPPLY SIDE

The supply side of the global automotive industry is composed of the following broad segments with distinct requirements, as illustrated by Figure 3.1 and defined below (Humphrey & Memedovic, 2003:21, 22):

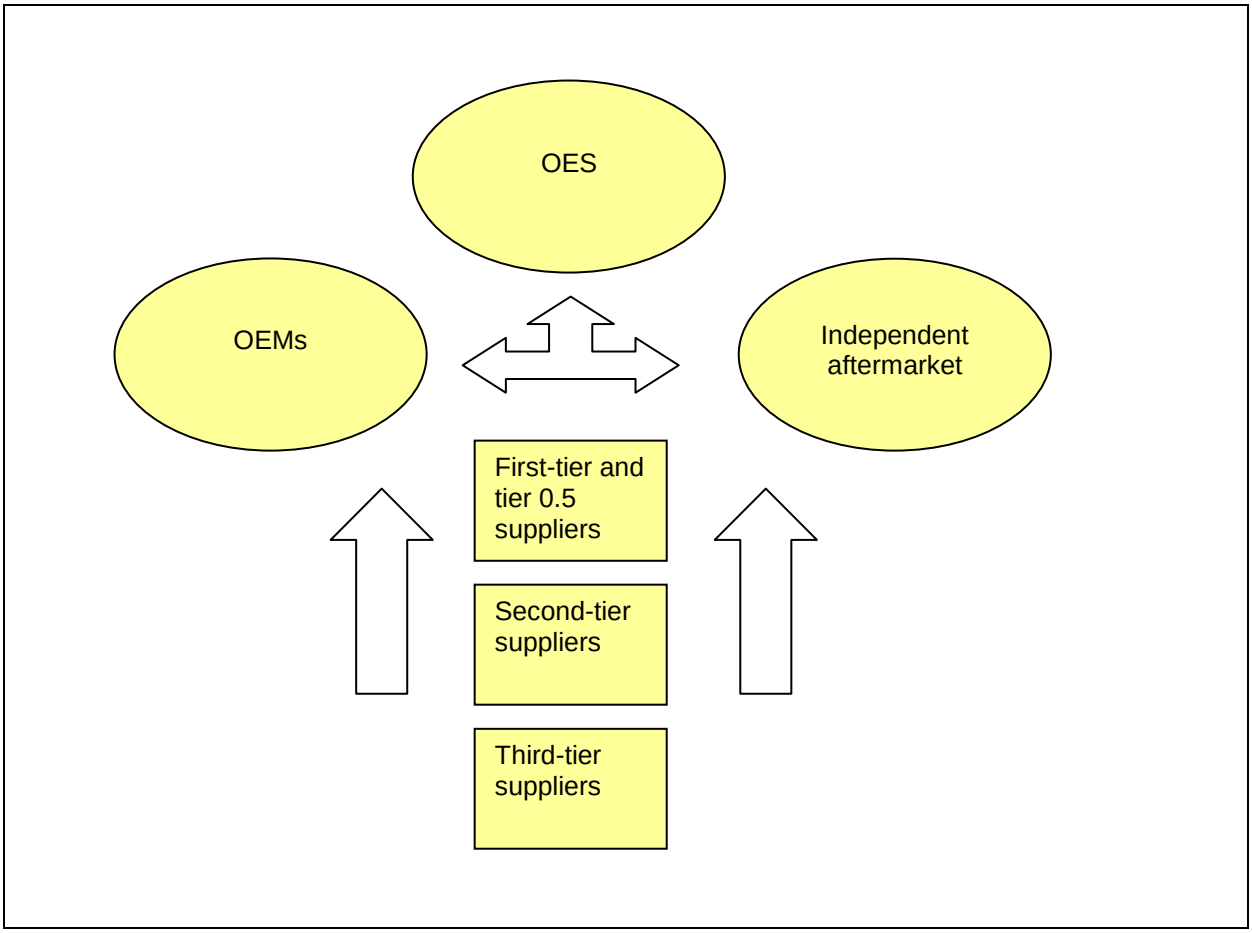

Figure 3.1: Segments of the automotive industry supply side
Source: Humphrey & Memedovic, 2003

- Original equipment manufacturers (OEMs), comprising passenger car, commercial vehicle and bus manufacturing, as well as sales, primarily through dealerships.
- Original equipment suppliers (OESs) that manufacture and supply automotive parts and accessories directly to the OEMs for their service networks. In this way, the parts are endowed with the reliability associated with the brand of the vehicle, which is serviced for nine to ten years after production of the vehicle (CBI, 2004b:10). OESs require global coverage and need to provide "black box" solutions (solutions created by suppliers using their own technology to meet the performance and interface requirements set by the OEMs).
- The independent aftermarket, which is responsible for the manufacture and sale of automotive replacement parts and accessories. The sales take place directly to the consumer through independent retailers and repair

shops. The aftermarket also re-manufactures, distributes, retails and installs motor vehicle parts and products other than the original parts and accessories.

- First-, second- and third-tier automotive component manufacturers that supply manufactured parts and accessories to OEMs, OESs and the independent aftermarket. The distinction between the different tiers of component suppliers is indicative of the automotive component manufacturer's role in the supply chain. First-tier suppliers (also known as sub-assemblers) are responsible for manufacturing components that are supplied to the OEMs and the aftermarket. In some instances they design certain assemblies and assemble modules, such as entire dashboards from different components, and are then referred to as tier 0.5 suppliers. They require design and innovation capabilities, but compared with the OESs their global reach may be limited. Second- and third-tier suppliers provide parts and subcomponents for first-tier suppliers and also OEMs, depending on the product. The third-tier suppliers supply mostly basic products and generally only rudimentary engineering skills are required.

In the context of the automotive supply chain, the roles of the OEMs, as key drivers of the supply chain, their relationships with their first-tier suppliers as well as the relevant relationships of the first-tier suppliers with their lower tier suppliers will be discussed next.

3.4.3 GLOBAL AUTOMOTIVE VEHICLE PRODUCTION

The 74,6 million vehicles produced in 2007 translated into 204 500 new vehicles rolling off the assembly line each day of the year. Globally, automotive manufacturing is spread across Asia Pacific, Europe, NAFTA, Europe, Central and South America, and the Middle East and Africa (OICA, 2009).

In 2006, regarded as a volatile year, 14 of the world's top 20 vehicle-producing countries changed places. In 2006 China passed Germany to become the third-largest manufacturer of cars and trucks; Mexico and India pushed the UK out of the top 10; Turkey passed Belgium to become number 17 and the Czech Republic and Poland knocked Sweden out of the top 20 (Snyder, 2007b:4). In 2007 South Africa was

ranked twenty-fourth with a market share of 0,73% of global vehicle production. In 2008, passenger cars comprised 80,3% and commercial vehicles 19,7% of total global vehicle production (OICA, 2009).

Table 3.1 below summarises the global vehicle production by region for 2006 and 2007. The official comparable global vehicle production by region for 2008 was not yet available at the time of writing. According to the 2008 Global Market Data, as published by *Automotive News Europe* (2008:5), Africa's vehicle production increased only marginally from 2006 to 2007. South Africa made up in the order of 78% of the total vehicle production of the continent and the country's vehicle production declined by 9% from 2006 to 2007. In the Asia-Pacific region, the increase in production of China by 21,9% and India by 9% contributed to the increase in vehicle production in that region. Brazil with an increase in production of 13,3% and Argentina with 26% contributed to Central and South America's vehicle production increase. As far as North America is concerned, production in the USA declined by 6,5%, contributing to the overall decline in vehicle production in that region. The largest market in the Middle East, Iran, increased production by 9,5%, contributing to the increase in vehicle production in that region. In Europe production declined in France by 4,9% and Belgium by 10,2%. Increases recorded in Germany of 6,5%, Spain 4%, the UK 7,3% and Russia 10%, however, contributed to an increase in Europe's vehicle production.

Table 3.1: Global regional production summary – 2006 and 2007

	2007			2006	%
Region	**Cars**	**Commercials**	**Total**	**Total**	**change**
Africa	416 480	362 313	778 793	769 890	+ 1,2
Asia-Pacific	21 861 131	7 540 572	29 401 703	27 261 976	+ 7,8
Central/South America	2 973 547	895 724	3 869 271	3 384 238	+ 14,3
Europe	20 184 306	3 634 730	23 819 036	22 429 764	+ 6,2
Middle East	1 072 325	239 261	1 311 586	1 206 553	+ 8,7
North America	6 682 402	8 784 469	15 466 871	15 939 658	- 3,0
Total	**53 190 191**	**21 457 069**	**74 647 260**	**70 992 079**	**+ 5,1**

Source: Automotive News Europe, 2008:5

According to PriceWaterhouseCoopers (PWC) (2008:6, 7), global light vehicle production in emerging markets increased by 15,38% between the years 2000 and 2007. Over the same period, production in the mature markets of the EU, Japan and the USA increased by only 0,39%. From 2007 to 2015, the PWC forecast is for 95% of the growth in light vehicle production to originate from emerging markets. Brazil, India, Russia and China are the most eminent in the growth stakes, with more than 58% of forecasted growth between 2007 and 2015 stemming from those countries. Low-cost vehicles are expected to take on increasing importance for global OEMs as they seek to accelerate the development of emerging markets. This focus would reduce the pressure to perform in the world's highly competitive and challenging established markets.

Since 1998, when the global recession bottomed out, there has been an overall increase in vehicle production of about 2,7% compounded per annum from the 53 million units in 1998 to the 69,6 million units in 2008. The production increase over this period incorporated a decline in production of 3,5% during 2001 and strong positive growth of 4,8% in 2002, 5,8% in 2005, 4,5% in 2006, and 5,1% in 2007, driven primarily by growth in demand within China. However, vehicle production declined by 4,9% or by nearly 3,6 million units from 2007 to 2008, mainly reflecting the impact of the global financial and economic crisis since 2008 (OICA, 2009).

The global competitive environment presents formidable challenges to manufacturing infrastructure. Speed is viewed as the key to being able to respond to continuously changing market demands. Market demands include time-to-market pressure, plant and equipment costs, and the need to amortise them over ever-longer periods. To compound the difficulties to be overcome in designing and manufacturing plants of the future, the large investments already made in existing plants need to be considered. At the same time, flexibility is needed in order to adapt quickly to market evolution and equipment (Garella, Blanc & Rusina, 2006:62, 63).

In the 1990s, one of the most significant changes in automotive product development strategy was modularity. This process involves the development of standard modules that can be easily connected to other standard modules to increase the variety of products. The modularised approach has become especially important in the

automotive industry where both the USA and European OEMs are increasingly creating world components to combat growing Japanese competitiveness (Gillespie et al., 2004:300–302; Hill, 2007:423).

Platforming was a theory that first came to public attention with Volkswagen in the late 1990s. On a single platform the German carmaker was able to derive a total of 19 vehicles across its brands throughout its life, producing in excess of two million vehicles per annum. The dilemma for OEMs is to optimise the platform programme in order to have the right number of platforms and models that allow the cost savings from commonality without harming the individual model value. On one hand, they want to increase the product variety, offer more different configurations and fine tune their products to make offerings to individual market segments, while, on the other hand, maintaining economies of scale, the benefits of large quantity manufacturing and mass discounts in the supply chain. The desire to achieve these conflicting aims is what gave birth to product families and product platforms (Venables, 2006a:20, 21).

As one of the objectives of South Africa's Motor Industry Development Programme (MIDP), the advantages of a platform are numerous. There is a reduction in inventory as well as more standard parts. Decisions on platform extent require four different considerations, which focus on market segmentation, value against price, functional attributes and physical attributes. Knowing the demand and what the company is actually manufacturing allows the company to estimate manufacturing costs, variable costs and investment costs (ibid, 2006a:20, 21).

The next section will focus on the roles of the dominant OEMs in the global vehicle supply side**.**

3.4.4 GLOBAL MOTOR VEHICLE MANUFACTURERS (OEMS)

According to Ciferri and Revill (2008:1, 2) the economic crisis in 2008 could trigger a big decline in the number of global OEMs. These authors state that there could be only six survivors in the global volume sector owing to declining new-car sales and rising financial losses, leading to consolidation in the industry up to 2010. Only companies manufacturing more than 5,5 million cars per year will be able to survive. At present only five OEMs, namely, Toyota, General Motors, Volkswagen, Ford and

Renault-Nissan, have that kind of scale. The independence of OEMs is no longer regarded as sustainable and analysts think bigger companies are likely to be the ones best placed to achieve cost savings and spread the expense of R&D in the future. In the event this could mean the end of some famous and long-established brands.

The increasing number of new models launched annually signals the OEMs' product offensive to win market share. KPMG's global automotive survey (2005b:2; 2006:2, 3) revealed that this development is the result of the OEMs' costly attempts to place more models in a growing number of niche segments. However, analysts believe that the OEMs are offering too much choice, claiming that that is what the public wants. The common wisdom is that market fragmentation gives the car buyer more choice, which increases the chance that he or she will actually buy one of the cars.

The expansion of the OEMs' product ranges has been met with stable demand in the main markets. Consequently, the average model lifecycle of the vehicles is about to shrink, thereby reducing the period in which the OEMs are able to achieve a return on their investment. The proliferation of models and the development of niche market products could, however, open up important new opportunities for developing, lower-cost producing countries such as South Africa.

Table 3.2 provides a breakdown of vehicle production by the top 10 OEMs revealing that Toyota passed General Motors in 2008 to become the number one OEM in the world.

General Motors dominated the global rankings for 77 years up to 2007. The top 10 OEMs accounted for 68,9% of total global vehicle production representing in the order of 47,9 million units in 2008. The OEMs also manufacturing in South Africa and not ranked in the top 10 in 2008 are Daimler AG (Mercedes Benz) ranked at number 12 and BMW ranked at number 14 (OICA, 2009). According to OICA (2009) Toyota increased its production by 55,1% or nearly 3,3 million units between 2000 and 2008. General Motor's production increased by only 0,2%, Volkswagen's production increased by 26,1% while Ford's production declined by 26,2% over the same period. Other major winners over this period were Suzuki and Honda.

Table 3.2: World motor vehicle production by manufacturer, 2008

Group	Total	Passenger Cars	Light Commercial Vehicles	Heavy trucks and buses	Brands
1. Toyota	9 237 780	7 768 633	1 102 502	366 645	Lexus, Daihatsu, Toyota
2. General Motors	8 282 803	6 015 257	2 229 833	37 713	Bedford, Buick, Cadillac, Chevrolet, GMC, Holden, Hummer, Isuzu, Oldsmobile, Opel, Pontiac, Saab, Saturn, Subaru, Suzuki, Vauxhall
3. Volkswagen	6 437 414	6 110 115	271 273	56 026	Audi, Bentley, Bugatti, Lamborghini, Seat, Skoda, Volkswagen
4. Ford	5 407 000	3 346 561	1 991 724	68 715	Aston Martin, Ford, Lincoln, Volvo, Mazda, Mercury
5. Honda	3 912 700	3 878 940	33 760		Acura, Honda
6. Nissan	3 395 065	2 788 632	463 984	142 449	Infiniti, Nissan
7. PSA	3 325 407	2 840 884	484 523		Citroen, Peugeot
8. Hyundai	2 777 137	2 435 471	85 133	256 533	Hyundai, Kia
9. Suzuki	2 623 567	2 306 435	317 132		Suzuki
10. Fiat	2 524 325	1 849 200	516 164	158 961	Fiat, Alfa Romeo, Ferrari, Maserati, Iveco, Lancia
Other	21 638 158	16 506 035	3 156 404	1 975 719	
Total	**69 561 356**	**55 846 163**	**10 652 432**	**3 062 761**	

Source: International Organisation of Motor Vehicle Manufacturers (OICA) 2009

According to WARD's (2008), seven of the top 10 OEMs of the world are represented by manufacturing plants in all five of the main vehicle manufacturing regions. The main manufacturing regions are North America, South America, Europe, Asia and Africa/Middle East. Only Honda (not represented in Africa/Middle East), PSA Peugeot-Citroen (not represented in North America) and Fiat (not represented in North America) are not represented in all of the main manufacturing regions globally.

Strategies followed by the OEMs differ vastly. General Motors has different strategies for new car sales in Eastern and Western Europe. In the East, where car sales are growing fast, General Motors expects a huge increase in unit sales led by low-cost brands. In the West, where the new car market is flat, the company wants to make more profit per vehicle on its premium brands. The drive for profit rather than market share also comes from Nissan CEO, Carlos Ghosn, as Nissan Europe is selling fewer

cars but earning more money. In 2006 Nissan aimed its new launches in Europe at profitable market niches focusing on high-margin models. The strategy was obviously working, as Nissan's profit margin of 4,5% in 2005 exceeded that of Toyota and Honda, despite selling 0,6% fewer vehicles compared with 2004. Renault and PSA identified image problems and a lack of new models as major challenges in 2007 to counter declining global sales. Both OEMs vowed to work on making their products and image more attractive in order to increase market share (Stein, 2006a:4; De Saint-Seine, 2007:4; Weernink, 2007a:16).

Overall the key themes since 2006 have been the continued move of vehicle production from Western Europe eastwards, the financial strife in North America and the rise of China as a production location. The major OEMs have all responded to these challenges and the increased competition they face. In line with the objective of the study to analyse the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008), the actions and responses of those top global OEMs with subsidiaries in South Africa will be discussed below.

3.4.4.1 Toyota

Toyota is an unqualified, universal success story, with production expansion worldwide but notably in China, the USA, India and Japan. In 2007 the ratio between domestic Japanese and offshore production by Toyota was very close to 1:1. Toyota has been quite happy with its proliferated product line up, and even its brands, where it has seen attractive marketing opportunities. The grouping together of synergistic geographic markets, and the creation of production arrangements and specific product lines for the company to share, has been a positive factor in Toyota's recent path to growth (Beeton, 2008a:28). At the heart of Toyota's success is its much-vaunted Toyota Production System (TPS), with its built-in quality controls and just-in-time supply chain. The TPS does not differ in the different parts of the world, but it has been customised on the basis of local culture, local practices and habits (Venables, 2008b:20).

Toyota chases customers and markets, not component or labour cost cuts. The company patiently harvests information about the element that really makes sales – its customers' needs. This is something that the Big Three (General Motors, Ford and

DaimlerChrysler) have lost sight of and it shows in their figures. The smart movers in the global car market stay close to the people who have the real money – the car buyers. Toyota's self-imposed goal is to build 60% of its sold vehicles in local factories, rather than to export from Japan (Smith, 2007a:3).

Toyota is always thinking long term. Although automation is increasing, the labour cost content of a car remains large, but not so large that it should dictate where the car is manufactured; other costs such as logistics, energy costs, raw material and plant costs should also be taken into consideration. Traditionally, Toyota has worked alone and has not entered into alliances; however, in order to accelerate its entry into the small car in Europe and to reduce the investment required, it decided to launch its Aygo small car in association with PSA. It has also acquired General Motor's shareholding in Subaru and will use Subaru as an additional production source, first in the USA but later in Japan. It also owns a majority stake in Daihatsu. Toyota was one of the initiators of global production and the Corolla was actually the only car ever made simultaneously on all five continents (Smith, 2007a:20–23). Toyota's new aim is to produce ultra cheap vehicles, with the focus on low cost technology (Clark, 2007:17).

3.4.4.2 General Motors

In June 2009, General Motors went into Chapter 11 bankruptcy, which means that its assets are protected from creditors while the company restructures with the help of US government financing. A much leaner General Motors with a pared-down product line will emerge on the other side. The company's updated business plan accelerates the timelines for a number of important actions, making deeper cuts in several key areas of its operations. As part of the revised viability plan, the company will now focus on four core brands in the USA, namely Chevrolet, Cadillac, Buick and GMC. The Pontiac brand will be phased out by the end of 2010 and Saab, Saturn and Hummer, the latter also being manufactured in South Africa, will be phased out in 2009. General Motors also intends reducing its USA dealer count from 6 246 in 2008 to 3 605 by the end of 2010. The company expects US sales to decline to 10 million units in 2009, down from the 15 to 17 million recorded in previous years. The company also plans to reduce the number of assembly, power train and stamping plants in the USA from 47 in 2008 to 34 by 2010 and to 31 by 2012. US hourly employment levels are projected to reduce

from 61 000 people in 2008 to 40 000 in 2010 and 38 000 in 2012. In the event of bankruptcy in the USA, the General Motors operations in South Africa would remain unaffected as the subsidiary is a self-sustaining operation responsible for its own future (Venter, 2009c:18).

These US plant closures will reportedly result in a reduction in annual assembly capacity of some one million units, to a new total of 4,2 million. This capacity is 30% less than the capacity level held by General Motors' North American operations in 2002. Other components of the initial 2005 announced recovery plan include an agreement with the United Auto Workers union to reduce the corporation's contributions to hourly-paid retirees' health plan costs**.** The company's plan will place additional emphasis on crossovers, compact and luxury sports utility models, large pickups and luxury cars, which the North American market is demanding. Future product development and sales and marketing activities, including retail pricing actions, will be coordinated within a single, global structure to improve brand strength and raise retail sales levels (Beeton, 2006:12).

In 2005, General Motors had 178 plants in 33 countries and global capacity to build more than 9,2 million units a year. The company's sales achievements in 2006 and 2007 included its outstanding performance as leading foreign manufacturer in China and its sales success with its latest Opel Astra in Europe. The contribution of a value-for-money Chevrolet-badged product from General Motors-Daewoo in South Korea also contributed to sales. Hybrids are an area into which General Motors was initially slow to enter, but for which it seems to be gaining enthusiasm (Beeton, 2006:12; Henry, 2007:20–30; Smith, 2007b:28).

Bob Lutz, Global Product Development Manager at General Motors, has indicated that platform-based manufacturing is the future for the struggling automotive giant. In 2006, Opel announced a new two-platform per plant system, which means that all plants in Europe should be capable of making two different platforms. These arrangements will be extended and all Opels will be designed with US regulations in mind. The seven-year strategy in respect of consolidating its Saturn and Opel brands aims to provide a slew of European-styled vehicles for consumers on both sides of the ocean. By 2014, all vehicles for Saturn and Opel will be interchangeable. In 2006,

Carl-Peter Forster, president of General Motors Europe, said that whenever the company develops a vehicle it has to make sure it can export it to the USA and vice versa. The idea is to be flexible with each new model, so that they are capable of meeting global regulations. From January 2006, General Motors will have one single global design and engineering budget. The single-budget concept has never been introduced before and this lack was a big hindrance to previous efforts to produce component sets, architectures or products that are global in scale. General Motor's long-term commitment to India is unquestioned while other investments in 2006 included US$77 million for the Hummer H3 production in South Africa (Priddle, 2006b:26, 27; Venables, 2006a:20, 21; Henry, 2007:20–30).

3.4.4.3 Volkswagen

The restructuring of VW AG is pivotal for the German group that includes Volkswagen, Audi, Bentley, SEAT, Skoda, Lamborghini and Bugatti. The group has troubles at home and abroad, specifically in North America and China, the root problem of which is that Volkswagen cannot continue to be a high-cost, non-competitive producer of a limited range of vehicles for diverse international markets. Volkswagen's problem is "made in Germany", with historical roots. Volkswagen started as a one-vehicle OEM, the Volkswagen Beetle, created as the people's car for Adolf Hitler. Of Volkswagen's 343 000 employees, about 179 000 are based in Germany, the most expensive place to manufacture cars and the most resistant to addressing high cost and low productivity. German workers are paid an average of US$41 an hour compared with hourly wages of about US$25 in the USA. Volkswagen's wages are some 11% higher than its domestic peers and about 20% higher than competition in general (Priddle, 2006a:50–56).

Historically, well-paid workers were not an issue in Germany. BMW and Mercedes-Benz could pass on the cost to buyers willing to pay more for German engineering. It was harder for Volkswagen with a heritage of affordable cars and this situation has been exacerbated by the strength of the euro against the dollar and the competitive pricing structure in North America when exporting to the USA. Without a solution there is believed to be no future for the company's European manufacturing. Cutting thousands of jobs and increasing efficiency and cutting the pay of those who remain are the order of the day, with fewer heads and less cost per head being the mantra for

the company. The national manufacturing base that made Volkswagen so formidable has become its inherent weakness and stands in the way of global success. Reports have put the job-reduction target as high as 30 000 and wage cuts in the 20 to 40% range (ibid, 2005:50–56).

The restructuring plan for the Volkswagen brand includes the need to reduce costs, improve quality and introduce exciting new models. Volkswagen must defend its core segments and launch an offensive into new segments. In 2004, Volkswagen indicated that it needed to reduce personnel costs by US$2,4 billion by 2011. The first US$1,2 billion would be achieved in 2006 under the terms of the contract negotiated which guarantees no layoffs until 2012 in exchange for a 28-month pay freeze. The CEO indicated that the 2011 date had to be brought forward and this included operations in China where Volkswagen had seen stiff price competition and a sales decline in its second-largest market after Germany. Volkswagen once held a commanding 50% of the Chinese market, but General Motors overtook Volkswagen as the sales leader in 2005 and expansion plans for China remain on hold. In North America, Volkswagen was the first OEM to challenge the Big Three on their own turf. To offset the negative effects of the dollar, Volkswagen is increasing US content and has consolidated global output in Mexico. Producing within the confines of the NAFTA provides a natural hedge. In addition, Volkswagen has recognised the need to manufacture the right products for individual markets and tidy up its launch cadence to avoid its historical cycle of feast or famine. To help Volkswagen understand the market, a project named Moonraker has been created to study trends, culture and buying habits in America and as part of the shift in strategy entails being more sensitive to regional differences. The input will help Volkswagen to develop pertinent products that will generate much-needed profit (Priddle, 2006a:50–56).

3.4.4.4 Ford

The “Way Forward” plan, Ford’s blueprint for survival and restored profitability on the American continent, was reportedly aimed at incorporating the closure of 14 of its facilities and shedding between 25 000 and 30 000 jobs. The initial announcement revealed only the identities of five facilities which were due to close by 2008, leaving the personnel working in balance of those, as yet, unidentified plants that would also be idled by 2012, still unaware of their ultimate fate. These reductions are ultimately

planned to reduce Ford's North American production capacity by some 26%, which is equivalent to 1,2 million units per annum. Other elements of the plan include the establishment of a new low-cost North American manufacturing site, and the rebuilding of the Ford, Lincoln and Mercury brands. The aim is to create a more attractive and marketable product line-up, stabilising the company's US market share while introducing cost and productivity improvements and more global integration (Beeton, 2006:12, 42). Ford also intends reducing the number of vehicle platforms by 40% over the next five years up to 2012, with 70% of all models to be built off 10 platforms (Smith, 2007c:14).

Ford has reached new agreements with its hourly workforce on the way work is structured, allocated and performed in its plants. Termed "competitive operating agreements", these new work rules are the foundation of the very productive national contract negotiations that Ford wrapped up in 2008. Ford's recovery plan has four main components. The first component is to restructure the company aggressively across the board so as to be profitable at lower volumes and with a changed product mix. Secondly, the company plans to accelerate product development while reducing complexity and improving product quality. Thirdly, Ford intends to work together to improve teamwork and accountability and, fourthly, it is intent on securing financing to complete the plans. The company is focusing on its core business, which is manufacturing and selling cars and trucks. It is also investing in engines, transmissions and stamping, as the company knows that it needs to control closely those aspects of production that are integral to the technology and design quality of the vehicle (Venables, 2008a:20, 21).

Ford's global group profit is generated mainly by its operations in other parts of the world with losses in its North American operations. Observers have been quick to point out that many of Ford's most attractive and successful international products, such as the latest Focus and the KA, are not marketed in the USA. Another element of the Way Forward plan is, reportedly, the Piquette Project, named after the Piquette Avenue, Detroit plant where the iconic Model T was originally developed. This top secret plan is expected to deliver renewable, clean and safe cars and automotive components by 2008, which year will mark the 100th anniversary of that same Model T (Beeton, 2006:12, 42).

Other Ford developments include the cutting of 1 200 jobs by Volvo as part of its restructuring plan in Belgium. In Australia, production of the large Falcon car and Territory SUV are being cut by 25% from 450 a day to 360 a day across the two models. It is not just manufacturing plants that are facing the brunt of Ford's difficulties: in the order of 600 dealerships are to be closed in the USA up to 2010 as well. No major restructuring is planned in Europe apart from the France plant, while expansions in Germany, Belgium and Russia are expected to support strong demand for certain models. Ford has increased its commitment to alternative fuels and this is taking place across the whole group, while Volvo is investing US$1,36 billion in fuel economy research and a special hybrid research centre is being established in Sweden (Henry, 2007:20–30).

In order to get out of the financial hole it finds itself, Ford needs to find way to increase sales rapidly and win back market share. The aim is a difficult one, even with the widespread adoption of platform-sharing techniques and the spread of fuel-efficient diesels into the US market. In product terms, Ford has recognised that the future will be very different to the past, especially in the USA where the company has to be present in the small car and crossover segments, where it was lacking in 2007. Fuel prices are beginning to rise and consumers are beginning to look at smaller, more fuel-efficient cars. The company will not be able to offer something in this segment before 2009, symptomatic of Ford's problems, as its product development process is too slow (Henry, 2007:20–30).

3.4.4.5 Nissan

Nissan has come out on top as the most efficient producer of vehicles in North America in 2006. Nissan's production time of 28,46 hours per vehicle was better than the 29,40 hours of Toyota followed by Honda, General Motors, DaimlerChrysler and Ford, the latter at 35,82 hours per vehicle. In 2006, Nissan returned to the top place, beating Toyota after straightening out problems caused by the launch of more than six vehicles in 2004 and 2005. Its positioning gave it a US$300 to US$450 per vehicle cost advantage over less productive competitors. Overall, the gap narrowed between the most efficient and least efficient automakers in 2005 to 7,33 hours per vehicle. Nissan, Toyota and DaimlerChrysler produced at between 94 and 106% of their North American capacity, while Ford's assembly plants ran at 79% of their potential output.

Capacity usage is also a measure of an OEM's flexibility (Automotive Manufacturing Solutions, 2006b:10). The manufacturing methodology driving Nissan's increased productivity is encapsulated in its Nissan Production Way and its vision is to be quality driven and waste free (Venables, 2006a:31).

According to CEO Carlos Ghosn, Nissan's sales forecast for the US market is higher than its capacity there and it is looking at the best ways to expand capacity. It has the option to either expand its existing US plants; source more from Mexico; acquire an existing plant; link up with another OEM in a joint venture; or contract production from another manufacturer. Nissan might also decide to acquire one of the plants slated for closure by General Motors (Zoia, 2006:12).

Nissan's Sunderland plant in England is regarded as Europe's most efficient assembly plant. Its ten secrets for efficiency include: 1) to pursue vertical integration by manufacturing components in-house; 2) to purchase low-cost parts; 3) to overachieve in Kaizen, which is to keep on improving continuously; 4) to reduce expenses; 5) to save seconds on every task; 6) to engage workers for solutions; 7) to keep on training; 8) to change processes as part of the Nissan Integrated Manufacturing System by analysing the existing process and pursuing the ideal process; 9) by involving suppliers, and 10) by pursuing flexibility (Snyder, 2007d:12).

3.4.4.6 Fiat

After a number of years of poor financial returns and declining market share, Fiat seems to be back on track. The company is confident of reclaiming a double-digit percentage share of the European market by 2010. Interesting developments in 2006 included an US$565 million investment in Italy as part of a three-model alliance with PSA. Fiat plans to invest as much as US$1 billion in its Brazil operations, mainly for exports to Europe. Ford Motor Co. and Fiat SpA will collaborate on two new small cars in an effort to reduce development and material costs. In Poland, Fiat will make the Ford Ka along with its Fiat 500 on a contract basis for Ford and has invested US$706 million for this purpose**.** The new Fiat-Ford vehicles will be differentiated in terms of styling, yet will share major components including Fiat gasoline and diesel engines (Nasser, 2005:11; Ciferri, 2007:3; Henry, 2007:20–30).

In India Fiat is negotiating with Tata on a technical alliance that will see Fiat designs used as Tata branded vehicles. The alliance with Tata in Argentina will see Fiat resume production in Argentina after a gap of more than five years owing to the collapse of the Argentinean economy in 2001. In 2008, under licence from Tata Motors of India, the Tata pickup and the Fiat Siena will be produced following a US$140 million investment. The production alliance with Nissan in South Africa came to an end and was finally dissolved in August 2007, hence Fiat has become solely an importer in South Africa. Most of Fiat's investments and expansion plans affect its operations outside Italy and new investments in Italy are limited. Fiat's management intends to pursue a series of alliances or strategic partnerships to maintain its new-found momentum. It will reinforce its alliance with Tofas in Turkey, with Severstal in Russia, Tata in India and Nanjing in China (Nasser, 2005:11; Ciferri, 2007:3; Henry, 2007:20–30).

3.4.4.7 Daimler

In January 2006, just one day after the Ford restructuring plan announcement, DaimlerChrysler entered the media arena with its own restructuring plan. In its case, worldwide general and administrative functions, including finance, control, human resources and strategy were in the spotlight. The German/USA giant announced its intention to eliminate 20% of these positions, involving 6 000 employees, in the period up to 2008. The resulting "new management model" would require those personnel who were not lost in the restructuring process to take on additional responsibilities and more integrated job functions. The new model also tightens the relationship between Chrysler in the USA and Mercedes-Benz in Germany inasmuch as activities such as R&D will be rationalised inside the Mercedes-Benz Car Group. The retention of clearly separated brand identities remained a priority. Emphasis is reportedly moving away from the platform-sharing philosophy to one of common modules, which, if they do not affect the image of the vehicle, can be more easily shared across different product ranges (Beeton, 2006:42).

While celebrating the 120th birthday of the first automobile built by Karl Benz, which was subject to a successful patent application lodged on 29 January 1886, DaimlerChrysler has taken more steps to tidy up its global structure. Uncertainty persists, however, over the future of the still unprofitable Smart division, which,

according to analysts, loses around €4 000 on every product it sells. DaimlerChrysler is busy with a €1,1 billion restructuring of Smart which will integrate the brand into the Mercedes Car Group. There have also been reports that the Smart division may be the subject of a possible sell-off. Some observers have persisted in the view that this division does not fit well with DaimlerChrysler's core personality, and could divert attention from the group's mainstream efforts to restore its quality image and improve profitability. Another product that has required the attention of management at DaimlerChrysler is the current E Class. Observers predict that a facelift version will appear followed by a more comprehensive model change in 2009, in an attempt to re-establish this range at the top of the European medium-premium segment, from which it fell in 2005 to third place behind the BMW 5 series and the Audi A6. The current model has reportedly suffered from a number of quality and electronic snags which have necessitated highly-publicised product recalls (Beeton, 2006:42).

In 2007, Daimler sold 80,1% of its share in Chrysler to a private investment company, Cerberus of the USA. In January 2009, Fiat and Chrysler signed a non-binding agreement to form a strategic alliance. In terms of the agreement Fiat will provide Chrysler with city and compact products and platforms, fuel-efficient and environmentally-friendly technology, and overseas distribution of Chrysler products (Beeton, 2009:32).

3.4.4.8 BMW

BMW continues to grow but increasingly outside its core production locations in Germany. It has committed US$24 billion of investment by 2009 to new model development programmes and expanding production facilities, much of which will be expansion outside Germany, of which the USA (Z4 and X5) and the UK (Mini) will be the main beneficiaries. Significant investments elsewhere, based on reports, include Russia, China and India (Henry, 2007:20–30).

Despite past success, Norbert Reithofer, new CEO of BMW, must deal with difficult issues such as the weak US dollar, which reduces profits, costing the company more than US$600 million a year. He also must launch two new crossover vehicles successfully. BMW is not an OEM with a volume of eight million cars a year able to put a production facility with volumes of 200 000 units anywhere it chooses. OEMs

producing 1,3 million to 1,5 million cars per annum thus need to have a strategy. Production has to follow the market. The UK is the most successful Mini market and the facility is therefore situated in the UK, while its largest X5 market is the USA, so it is right to produce the model there. BMW is known for its flexible production. Reithofer stated that, at the end of 1996/97, BMW had asked the question how the market would develop. At the time it had felt that volatility would be an issue and it could therefore no longer say as it did in the past that 500 000 of the 3-series models were possible, while predicting the percentage of sedans, convertibles and station wagons. Demand could now change 180 degrees in a few months and OEMs have to be flexible in following changes in the market (*Automotive News Europe*, 2006:22).

In 2008 the company reduced its workforce by 7% to just over 100 000 and anticipates reducing it by another 1 000 persons in 2009 owing to declining sales. The company has been realigned by its CEO, Reithofer, along several tracks. Areas include increasing its return on investment in order to invest in new technologies as well as pursuing efficiencies. BMW's 1 and 3 Series share 60% of their parts. The company's unofficial view is that it is not interested in acquisitions and wishes to operate alone (Taylor III, 2009:46–49).

The unfolding developments of the OEMs as discussed above impact significantly on the developments of their automotive component suppliers, which will be discussed next.

3.4.5 GLOBAL AUTOMOTIVE COMPONENT SUPPLIERS

The offensive strategies by OEMs, aimed at winning market share in an intensely competitive environment, impact on the developments of the first-tier automotive component suppliers and subsequently the lower-tier suppliers. The relationships between the OEMs and the leading suppliers, as well as the countries and regions in which these multinational companies operate, present opportunities as well as challenges. According to Bongard (2009b:1) the health of the supply chain is crucial because 75% of the parts in an average car come from automotive component manufacturers.

The global automotive component industry is characterised by a limited number of large global suppliers (typically OESs and first-tier suppliers) as well as a large numbers of smaller companies supplying on a national or regional basis.

Table 3.3 reveals the top 20 global automotive suppliers by sales turnover in 2007 compared to 2006.

Table 3.3: Top twenty automotive component suppliers by sales turnover, 2007

Company	Total global sales US$ billions	Country head office	Rank 2007	Rank 2006
Denso Corp.	37,51	Japan	1	3
Robert Bosch GmbH	34,00	Germany	2	1
Magna International Inc.	25,65	Canada	3	4
Continental AG	25,00	Germany	4	12
Delphi Corp.	22,83	USA	5	2
Aisin Seiki Co. Ltd.	21,71	Japan	6	6
Johnson Controls Inc.	18,50	USA	7	5
Faurecia	17,40	France	8	8
Lear Corp.	16,00	USA	9	7
ZF Friedrichshafen AG	15,10	Germany	10	16
TRW Automotive Inc.	13,56	USA	11	10
Valeo SA	13,29	France	12	9
BASF Group	11,85	Germany	13	-
Yazaki Corp.	11,31	Japan	14	14
ThyssenKrupp Automotive	11,08	Germany	15	15
Visteon Corp.	10,72	USA	16	13
Sumitomo Electric Wiring System	10,24	Japan	17	18
Toyota Boshoku Corp	9,17	Japan	18	17
Dana Corp.	8,72	USA	19	20
JTEKT	8,69	Japan	20	-

Source: Automotive News Europe, 2008:23

In 2007, Denso of Japan, gaining on the success of Toyota Motor Corporation, claimed the crown as the world's largest automotive supplier. Robert Bosch of Germany finished second after three consecutive years in the top position. Continental

of Germany made the biggest gain rising from number 12 to number 4 in sales as a result of its acquisition of Siemens VDO Automotive in 2007 (Barkholz, 2008:22). In 2007, three countries monopolised 83,6% of the top 20 automotive supplier heavyweights in the world by value, namely Germany, the USA and Japan. In 2007, sales by the top European automotive component suppliers, at US$129,88 billion, exceeded those of the top North American automotive component suppliers amounting to US$115,98 billion, for a second year in a row. American nationality groups were profoundly affected by the plummet in sales by the Big Three of Detroit. The accrued turnover of the top 100 automotive suppliers amounted to US$612,5 billion in 2007 compared to the US$539,9 billion in 2006, a growth of 13,4%. Growth increased from the 8% growth rate from 2005 to 2006 (*Automotive News Europe*, 2008:5–14). The profitability of the supplier groups is eroding under the combined effect of the rise in prices of raw materials and the decrease in prices demanded by OEMs, who are concerned about their competitiveness (Bigourdan, 2007:4, 5, 8).

Managing the supply side to correlate with the demand side, which will be discussed next, is an ongoing process in a competitive global automotive environment.

3.5 THE DEMAND SIDE

Factors that make a nation attractive to sell vehicles in, according to Mercer (2004:18–20), include

- the basics of sound gross domestic product
- growing per capita levels
- elasticity of demand
- requirements for domestically adapted vehicles (either from consumer or regulation demand)
- the availability of financing instruments
- favourable tax and tariff structures
- good road infrastructure

When it comes to naming their latest products, the world's OEMs spend a fair-sized fortune on researching a spread of prospective names. The aim is to make sure that the final choice that emerges from the process projects the right image and does not

insult any important target market group. The OEMs themselves carry names that usually refer back to the founder, the original nature of his business, or the place where the company was first established. The emerging Chinese industry is currently upsetting the applecart by adopting totally different names for its overseas export operations. The game with brands can and has been extensively played. The past formation of conglomerates has provided many opportunities for localised branding to suit particular markets. An example is General Motor's global J-Car medium sedan platform of the 1980s, which was sold simultaneously as the Opel Ascona, Vauxhall Cavalier, Holden Camira, Chevrolet Monza, Cadillac Cimarron, Pontiac J2000, Oldsmobile Firenza and Isuzu Aska. The rationalisation of the industry in recent years has removed the need for such brand proliferation. However, when it comes to names, special mention has to be made of Toyota. After years of non-offensive Coronas, Corollas, Celicas, Camrys, Cressidas et al, Toyota has recently embarked on a policy of endowing its offspring with names such as Auris, Prius, Ractus, Regius and Yaris. According to Beeton (2007c:22) it proves that a car's success has very little to do with its name, or that, when you are as good as Toyota at building good, reliable cars, then nobody really cares what they are called.

Global vehicle sales trends, involving the leading OEMs in the main automotive producing regions and future vehicle demand, will now be discussed.

3.5.1 GLOBAL VEHICLE SALES

Global vehicle sales have been relatively stable over recent years and analysts' projections are for limited growth up to 2010. The limited growth is problematic and is driving the restructuring of competitiveness dynamics within the global automotive supply chain.

As summarised in Table 3.4, total global vehicle sales increased by 4% from 69,1 million units in 2006 to 71,9 million units in 2007. The official comparable global vehicle sales by region for 2008 were not yet available at the time of writing.

Table 3.4: Global vehicle sales summary – 2006 and 2007

	2007			2006	% change
Region	**Cars**	**Commercials**	**Total**	**Total**	
Africa	947 718	458 057	1 405 775	1 372 337	+ 2,4
Asia-Pacific	14 727 330	6 692 764	21 420 094	20 006 929	+ 7,1
Central/South America	3 336 011	1 072 092	4 408 103	3 617 424	+ 21,9
Europe	19 198 854	3 728 731	22 927 585	21 955 326	+ 4,4
Middle East	1 907 938	459 110	2 367 048	2 184 292	+ 8,4
North America	9 379 152	9 993 099	19 372 251	19 990 300	- 3,1
Total	**49 497 003**	**22 403 853**	**71 900 856**	**69 126 608**	**+ 4,0**

Source: Automotive News Europe, 2008:6

The OEMs are focusing increasingly on emerging markets to increase sales, and hence market share. Reasons for the changes in sales from 2006 to 2007 in Africa could be attributed to the 23,8% sales increase in Egypt and 12,9% increase in Morocco, the second and third largest markets in Africa next to South Africa. Sales in South Africa declined by 5,5% over this period. In the Asia-Pacific region the largest market, China, increased sales by 18,3% and India increased sales by 9,2%, while sales in Japan declined by 6,8%. Sales in Central/South America are dominated by Brazil and sales in the country increased by 24% from 2006 to 2007. Sales in North America declined as a result of a 3,4% decline in sales in the USA from 2006 to 2007. Sales in Europe, the largest sales region, provided a mixed picture with sales in Germany, the largest European market, declining by 7,7%, while sales in Russia increased by 28,9% from 2006 to 2007. Sales in the largest market in the Middle East, Iran, increased by 11,0% over the same period. In 2007, European sales comprised 59,6% European brands, 21,7% USA brands, 14,9% Japanese brands and 3,8% from other regions. USA sales in 2007 comprised 52,1% USA brands, 34,0% Japanese brands, 6,2% European brands and 7,7% from other regions. In Japan, 2007 sales comprised 4,4% European brands, 0,7% USA brands and 94,9% Japanese brands (*Automotive News Europe*, 2008:6–14).

According to PriceWaterhouseCoopers (2008:6–13) new vehicle sales in the mature markets of Western Europe, the USA and Japan declined between 2000 and 2007. However, sales in emerging markets increased over the same period. Between 2000

and 2007, sales in the 15 European markets declined by 0,93% compared with growth of 8,56% in the 10 new member states. A similar pattern is evident in the USA and Japan with declines of 0,84% and 1,59%, respectively from 2000 and 2007. The North American market has been undergoing a structural shift owing to the elevated oil prices and consumers adapting their purchases accordingly. In the EU, demand was driven by replacement cycles and the prevailing economic situation. In Japan, the decline reflected the stagnation in domestic demand and the strategy of the Japanese OEMs to adopt build-where-you-sell policies, particularly in North America and Europe. In Japan, nearly 45% of the market comprises minicars, that is, cars with engines of under 0,6 litres. Any vehicle with an engine over 2 litres in Japan is taxed at a higher rate. The Japanese consumer is very demanding, and Mercedes-Benz and BMW sell nearly the same level of cars in Japan as they do in the USA (McElroy, 2007:15).

According to Kaur (2009:14), European and particular German OEMs with exposure to the US dollar are especially vulnerable to exchange-rate swings. The USA is the single biggest market for Mercedes Benz and BMW, as well as Volvo. A weak dollar makes it harder for foreign OEMs to price their cars competitively and profitably in the USA. The adverse currency impact for BMW in 2007 was €517 million and in 2008 €400 million. Hedging a currency locks in a specific exchange rate, which can help a business to avoid fluctuations. Most OEMs reduce their dependency on exchange rate fluctuations by having production capacity in the major overseas markets where they sell cars. Manufacturing vehicles in a local market is known as a natural hedge. For smaller brands that cannot afford the expense of an overseas assembly plant, hedging is the main solution.

The significance of China in the global automotive environment is evident. Since 2006, China has overtaken Japan to become the world's number two market for motor vehicles. According to Furlonger (2008a:54) in the order of 87% of total passenger cars and commercial vehicles sales in 2007 were to first-time buyers. In the USA there are 800 vehicles for every 1 000 people and in Europe and Japan between 600 and 700 vehicles per 1 000 people. These markets are therefore mature and focusing on replacement rather than growth. In China the figure is fewer than five vehicles per person, which means that there is potential for significant growth in new vehicle sales.

The Chinese average annual income per capita was reported at just over US$1 000 in 2006 and, as this rises, so vehicle ownership will inevitably expand. Given this scenario, it is not surprising that multinationals are rushing to enter China, despite the 50:50 joint venture requirement. General Motors alone is investing an additional US$1 billion annually in its Chinese operation, more than the combined annual investment by all companies in the South African automotive industry (Furlonger, 2008a:54). The Chinese government has set a target for achieving combined vehicle and component exports to the value of US$120 billion over the next ten years up to 2017 (Beeton, 2007a:18, 19).

According to KPMG (2009:32, 39) the leading determinant of consumer behaviour over the next five years up to 2013 will be cost issues. In the 2009 Survey, fuel efficiency was rated as the most important cost issue by global decision-maker respondents. Customers thus will become more discriminating and more concerned with total cost of ownership. Competitiveness and affordability of products are more important to African, European and Middle-East companies, while companies in the Americas are more concerned about profitability and pricing.

The low-cost segment will attract virtually every major-market company but no more than a handful is expected to get into the ultra-low-cost niche. It is important to note that safety cannot be sacrificed to cost. The low-cost segment is where the volume growth is, but the question is whether there is enough profitability in the product. For some time to come, the bulk of industry profits may still be in the high-cost car in developed markets (Guilford, 2007:3). The key driver of the small car segment in developing nations is an increase in disposable income of the middle-class population. The switch to smaller cars in developed regions, such as the USA and Western Europe, is largely due to more stringent environmental standards and the increasing need for more fuel-efficient cars. India was highlighted as likely to evolve into a global hub for small car manufacturing (Rutkiewicz, 2008:12). In April 2009, Tata Motors launched the world's cheapest car, the Nano, effectively re-defining the term "entry-level vehicle" at around R20 000 per unit. In 2009, Tata announced that it intended to take the Nano to Europe in 2011, although this version would be more expensive as it had to adhere to stricter European safety and emissions standards (Venter, 2009b:22).

A survey conducted in November and December 2006 by SupplierBusiness and Roland Berger Strategy Consultants indicated that 85% of people questioned expect diesels to become increasingly popular in markets outside Europe over the next five years. The development of major new markets for diesels would be a tremendous enhancement for European suppliers and OEMs, which collectively have a huge financial stake in the technology (Crate & Bolduc, 2007:4). Owing to California's stringent air quality rules – which were also adopted in New York, Massachusetts and 10 other states – diesels can be sold in only 38 states. European carmakers are therefore preparing diesel engines that meet emissions requirements in all 50 USA states (Kranz, 2007:20).

The future demand of the developing regions is one of the main focus areas and will be discussed in the next section.

3.5.2 FUTURE VEHICLE DEMAND

It is projected that by 2020 the developing country region will have overtaken the more developed country region in terms of the numbers of vehicles on its roads, but will still be behind in the vehicle ownership measure. According to Fels (2008:73) in 2007 vehicle ownership was 593 vehicles per 1 000 population in the EU, 824 in the USA and 594 in Japan. In contrast, vehicle ownership in Brazil in 2007 was 127 vehicles per 1 000 population, 28 in China and 13 in India. By 2020, despite a near doubling of the global parc (number of registered vehicles) between 2000 and 2020, total world vehicle ownership will be 175 vehicles per 1 000 population, with 631 in the more developed countries but only 112 in the developing countries. This massive increase in the vehicle parc presents a profound challenge to the industry and to the world. To make this happen, it is recognised that the mass of new vehicles will simply have to be broadly smaller, lighter, more fuel efficient, cheaper and with narrower margins (Haynes as cited by Lamprecht, 2006a:24).

The pressure for cost savings by the OEMs is a priority area. Developing countries and regions, providing lower cost manufacturing and huge growth potential for both the global automotive supply and demand sides, are increasingly important focus areas. The major automotive global trends and developments will now be discussed.

3.6 MAJOR AUTOMOTIVE GLOBAL TRENDS AND DEVELOPMENTS

One of the key features of industrial change over the course of the 20th century has been the globalisation of production. Instead of a product being manufactured from start to finish within a single factory (Fordism), products are now manufactured in networks of firms each specialising in a part of the production process (post-Fordism). These networks or value chains do not necessarily require geographic proximity in order to function and different stages of production are distributed throughout the world (KZN, 2002:1).

The consequences of globalisation for the automotive industry include the following (PWC, 2005:6):

- the fragmentation of the market to lower production runs
- dissatisfaction with the costly system of building cars for stock, not to order
- innovative modular construction in which an increasing part of the car is assembled by parts suppliers
- a possible switch to alternative energy powered cars

According to PriceWaterhouseCoopers (2005:6) nearly every significant industry player is exploring new geographies, new segments and new technologies in an effort to capture growth and create differentiation.

According to the KPMG Global Automotive Executive Survey 2009 (2009:1–8), the cautious optimism, evident among automotive decision-makers in the two previous years' surveys, disappeared owing to the unprecedented global financial crisis which unfolded in 2008. Expectations of overall industry growth, higher sales and higher profits existed after a long round of industry cost cutting and restructuring. However, companies are since confronted with uncertain growth prospects, with prices and financial conditions highly volatile. Lower revenues, lower profits, more bankruptcies, a slowdown of investments and a long cycle of restructuring are anticipated by automotive decision-makers. Respondents expect more vehicle production overcapacity to emerge in key regions and sales and production growth to decline in emerging markets. Amidst the immediate concerns over the downturn, the automotive industry, however, maintains a long-term focus on basic issues, including technology, fuel efficiency and the environment.

The next section analyses the major global automotive trends and developments and the consequent challenges faced by the automotive industry role-players. The major identifiable global automotive trends and developments impacting on the global automotive industry are mergers and acquisitions, global production overcapacity, outsourcing and sourcing strategies, environmental requirements, and innovation and new technology.

3.6.1 MERGERS AND ACQUISITIONS (M&A)

The automotive industry has been one of the leaders in merger and acquisition (M&A) activity and has been consolidating since its establishment. In the 1920s there were 270 car companies, mostly in America, before the big three, General Motors, Ford and DaimlerChrysler, acquired the majority of them. Since the mid-2000s there have been seven big groups and three smaller groups dominating the global automotive environment (*Economist*, 2004:15, 16).

According to PriceWaterhouseCoopers (PWC) (2008:35), in 2007 automotive M&A was the strongest for deals on a value basis since the late 1990s. One driver of the strong activity was the availability of low-cost financing in the first half of 2007. Access to low-cost capital led to a high level of activity.

PWC (2009:5, 6, 38) states that from the late 1990s through 2000, M&A activity by the OEMs focused on achieving economies of scale, expanding their presence in foreign markets, and acquiring new brands. This phase saw numerous mergers, including Daimler's acquired interest in Chrysler, Ford's acquisitions of Land Rover and Volvo, General Motor's investment in Fiat and Suzuki, and Renault's acquisition of the controlling interest in Nissan. The period 2000 up to 2008 has been characterised by disintegration of assets as a result of low returns and unrealistic synergies. The reversal saw Daimler selling its major interest in Chrysler and Mitsubishi, Ford selling Volvo and Land Rover, and General Motors paid its way out of the option that would have required it to purchase Fiat.

According to KPMG (2009:19), in 2008 the primary drivers for M&A were costs, the risk of bankruptcy as well as rationalisation in the face of a declining global economy. In 2008 the automotive industry suffered severe hardship and widespread uncertainty

as a result of unviable financing. This situation was compounded by eroding consumer confidence and deteriorating macroeconomic conditions. M&A activity in the automotive industry declined from US$57,1 billion in 2007 to US$31,6 billion in 2008. The 2008 figure comprised US$15,7 billion from the OEMs, US$11,6 billion from the component suppliers and US$4,3 billion from other automotive-related activities. The top 2008 deals included the 12% share in Volkswagen AG acquired by Porsche Automobile Holding SE, increasing Porsche's holdings in Volkswagen AG to 43%, as well as the 100% Jaguar Cars Ltd and Land Rover acquired by Tata Motors Ltd (PWC, 2009:5, 6, 38).

Both the OEMs and the component suppliers have responded to the changing economic and strategic climate. The consolidation trends by the OEMs will now be discussed.

3.6.1.1 Consolidation trends by the OEMs

In 2008, the top 10 global OEMs accounted for 68,9% of global vehicle production (0ICA, 2009). The level of concentration has increased by M&A, as well as the strategic alliances that have occurred over the last two decades. The implications of the higher levels of concentration in ownership are that decisions on vehicle production location are made by an increasingly smaller number of OEMs from their head offices in the developed Triad countries. M&A seek to benefit the global strategies of the collaborating parties (Murdoch, 2006c:16). Deals in the sector are of two distinct types. On the one hand, deals involve share stakes among the major global OEMs, while on the other, true change-of-control transactions are focused on smaller niche specialists (PWC, 2006:31).

In March 2008, Tata Motors signed a landmark deal to take over Land Rover and Jaguar from Ford. An association with these iconic marques has the capacity to significantly change perceptions towards Tata's position in the industry. Bridging the cultural gap between the management styles associated with luxury and basic transportation vehicles will be challenging. Tata should, however, be able to call on support from its growing relationship with joint venture partner Fiat, owner of Alfa Romeo, Lancia, Ferrari and Maserati. Ownership of Land Rover and Jaguar will also provide an ideal platform for building a greater influence for Tata in Europe where

previous efforts to establish a meaningful presence in the UK were not particularly successful (Beeton, 2008a:51; Smith, 2008b:10).

In January 2009, Fiat and Chrysler signed a non-binding agreement to form a strategic alliance. In terms of the agreement Fiat will provide Chrysler with city and compact products and platforms, fuel-efficient and environmentally friendly technology and overseas distribution of Chrysler products. In return Fiat will receive an initial 35% equity interest in the USA company and access to its domestic American distribution network. Fiat also has a reported option to increase its Chrysler shareholding at some later date to 55% (Beeton, 2009:32).

The OEMs, however, have concluded that the mega-deals of the past years failed to deliver the anticipated synergies and did not address the industry's central problem, overcapacity (PWC, 2006:31). Instead of increased profitability, M&A actions have mostly been considered to result in increased competition. Furthermore, not all mergers have been successful. A case in point is General Motors' US$2,4 billion equity stake in Fiat, without gaining any perceived benefits. Furthermore, to end the partnership, General Motors had to pay an additional US$2 billion (*Beeld*, 2005a:25). Daimler also sold 80,1% of its share in Chrysler to a private investment company, Cerberus of the USA in 2007. The transaction amounted to US$7,4 billion, significantly less than the US$36 billion paid by Daimler in 1998 (Kok, 2007:2).

According to Nissan chief executive, Carlos Ghosn, rising prices for steel will impact negatively on OEMs' earnings and increase pressure on the industry to consolidate. The costs will result in a deterioration of the profitability of the industry as a whole and would continue to be a burden on OEMs from 2007 onwards (Inoue, 2007:14).

Since the M&A strategies by the OEMs impact on the automotive component suppliers, the consolidation trends of the suppliers will be discussed next.

3.6.1.2 Consolidation trends of the component suppliers

Consolidation among the OEMs is most likely to be mirrored in the first-tier suppliers, where the emergence of a limited number of dominant players can be expected. This

trend is, however, not only driven by factors such as economies of scale, but also by the strategies of OEMs to (*Beeld*, 2004:2)

- access new markets
- avoid trade barriers
- decrease dependence on home markets
- produce less expensive alternative models
- obtain technical skills
- procure from fewer companies on a global scale, and
- shift increasing responsibility for design, engineering and production of components as well as assemblies to such suppliers.

According to PWC (2009:11, 12), the automotive component supplier sector is typically among the most active sectors in the automotive M&A deal market. In 2008, deal value declined by 67% to US$11,6 billion from the US$35,5 billion in 2007. Global distress by the OEMs, inaccessible financing as well as market and customer risk dampened supplier M&A activity in 2008. In 2008 the main drivers behind the supplier M&A that did take place centred on ongoing sector rationalisation resulting from overcapacity, volatile input prices as well as emerging market competition. With the high levels of unpredictability affecting all aspects of the automotive industry, activity in the component supplier deal market could prove to be a key indication of the future health of automotive M&A. The main future action is expected to be among the next level, the second-tier suppliers. Consolidation will continue to be driven by strategic, operational and financial objectives. M&A will likely serve as a means for industry role-players to survive the economic downturn and position themselves for shifting trends.

The target countries and regions included in the OEMs' consolidation strategies will be discussed next.

3.6.1.3 Consolidation trends in countries/regions

The Asian car market is the last frontier for the M&A wave that has already swept through the EU and USA segments of the industry. The Asia-Pacific region, most notably China, is expected to contribute significantly to global automotive production growth up to 2010. Western OEMs are eager to tap into this growth to establish

business in underdeveloped markets, and a successful strategy for capitalising on the future potential in emerging markets is critical to long-term survival. However, investments in Asia are not without risk and companies may not be able to move as aggressively as they would like.

KPMG (2005b:9) concludes that the miracle of consolidation is increasingly being viewed with some suspicion. One argument against M&A activity and its consequent globalisation is that it has created much of the excess capacity that exists.

The global overcapacity problem will be discussed next.

3.6.2 GLOBAL OVERCAPACITY

Global overcapacity per se is not regarded as a problem, but rather where the overcapacity is located. The capacity issue needs to be viewed country by country and company by company. The winners will be those companies that are best able to develop production strategies in anticipation of future developments over the next decade. As exchange rates and other economic factors vary and market trends around the world fluctuate, companies find that they need more capacity because their production resources are in unfavourable locations with the wrong build types and facilities. Since different global companies and different countries are performing at various levels, it is making the overcapacity challenges more intricate (Lamprecht, 2006a:29). According to PWC *Autofacts* (2009), the global average vehicle overcapacity level in 2008 was 23,8%, with the Middle East/Africa and Eastern Europe regions below the global average. Owing to the negative impact of the global financial and economic crisis on vehicle production, the global average vehicle overcapacity level is projected to increase to 36,3% in 2009. The biggest increases are projected for Eastern Europe with a projected 49,1% overcapacity, the Middle East/Africa with a 49% overcapacity and North America with a 40,8% overcapacity.

According to PWC (2005:6), new plants in the developing countries and the duplication of capacity between acquiring and acquired companies tend never to be fully compensated for by the closure of traditionally less productive plants. The reality is that between 1995 and 2004 the industry has made little progress in matching supply with demand. Even after closing five to ten plants a year over the last decade

and cutting hundreds of thousands of units annually, the industry has simultaneously opened an average of 15 plants a year over the same period, resulting in a net increase in capacity (PWC, 2005:6). The overcapacity and the fact that new plants in developing countries often struggle to achieve critical mass effectively prevents the full economic benefit of consolidation and globalisation from being achieved. At the same time, excess capacity in emerging markets, caused by over-exuberant investment strategies on the part of OEMs or suppliers looking for global growth, is leading to an increase in exports to mature markets (PWC, 2006:7).

The Triad countries, where nearly 70% of the world's cars and trucks are sold, have been running out of growth. In America, the arrival of European, Japanese and South Korean carmakers has created overcapacity. Moreover, as America's own OEMs constantly improve their productivity to draw closer to these new rivals, their own improved efficiency increases capacity by about 3% a year. In Germany and France rigid labour laws and in Japan the close industrial relationships have inhibited the closure of old redundant factories (Carson, 2004:3, 4).

The outsourcing and sourcing strategies of the multinational companies are therefore important aspects to consider and will be discussed next.

3.6.3 OUTSOURCING AND SOURCING STRATEGIES

OEMs and mega automotive component suppliers need global reach, innovation and design capabilities, as well as considerable financial resources. Internationally, global integration is occurring very rapidly in the automotive industry. This integration is driven by lower trade barriers, including the formation and extension of regional trading blocs, as well as by the global strategies of major international firms (Humphrey & Memedovic, 2003:21; Black & Bhanisi, 2006:3).

Increasingly, volume car manufacturing is a cost-driven business and manufacturing investment projects continue to be allocated to the less-developed countries that offer the twin benefits of huge factor cost savings and enormous growth potential. Globalisation is no longer a differentiating factor but a price of entry to remain truly competitive. Successful emerging market strategies have depended on a company's ability to extract substantial manufacturing cost savings from cheap domestic labour,

while taking advantage of favourable exchange rates and, in many cases, generous government incentives. Among the global players leading this change are the Japanese and South Korean OEMs, particularly Toyota and Hyundai (Oxford Intelligence, 2003:1; PWC, 2006:6). The intention is to spread vehicle development costs, establish cheap production sites for selected vehicles and automotive components, and create access to new markets for higher-end vehicles still manufactured in the Triad economies (Humphrey & Memedovic, 2003:1–5). Although the product design and marketing functions remain by and large with the parent companies' head offices, the main production processes are well established in respect of copying these in the developing countries.

Another consideration is the way goods are transported around the world, which has changed as a result of globalisation and the profound changes in worldwide manufacturing and distribution. This has opened up new global markets, without sacrificing quality or incurring major penalties in high freight costs (Breitenbach, 2006b:24–27).

The outsourcing and sourcing strategy concepts as well as the target countries and regions for outsourcing and sourcing will now be discussed.

3.6.3.1 Outsourcing

After mass production in the 1920s and "lean production" in the 1980s, the automotive industry has been undergoing a new revolution since the 1990s, focusing on suppliers. By 2015 automotive suppliers will have taken over large parts of R&D and production from the OEMs (Fraunhofer, 2002:1–6). The development and production capacities of the OEMs will be focused in future on those modules and components that are most critical to the success of their brands. These trends will be driven in part by new technologies, the growing complexity of vehicles and the exploding diversity of models. All of this will make development and production of vehicles considerably more expensive. Moreover, OEMs increasingly find that investing in service capacities is more lucrative than investing in production capacities. Owing to increased modularisation concepts, there is a shift from manufacturing-orientated plants to assembly-orientated plants (Mawson as cited by Lamprecht, 2006a:30).

The automotive component industry in the Triad economies has considerably restructured as a result of the combination of changes in the relationships between the suppliers and the OEMs and the increasing global reach of the OEMs. Three significant changes have taken place. Firstly, there has been a shift in design responsibilities from the OEMs to suppliers. Secondly, there has also been a shift towards the supply of systems sub-assemblies or modules, rather than individual components. Thirdly, the OEMs have become more involved in the specification of production and quality systems for their suppliers owing to the requirements of just-in-time (JIT) and just-in-sequence (JIS) supply (Humphrey & Memedovic, 2003:20, 21).

The greater responsibility places escalating demands on these suppliers. These include more investment in innovation and development, more responsibility for tooling and logistics, greater responsibility for larger modules and systems and increased responsibility for second-tier suppliers. Inevitably this means that suppliers are potentially exposed to greater risks. Management of risk exposure thus becomes a key objective of corporate strategy (ibid, 2003:20, 21).

The consequences of the increasingly progressive changes in the outsourcing strategies by OEMs, their relationships with their suppliers and the sourcing strategies of the OEMs will have a tremendous impact on the strategic objectives and business strategies of all industry role-players. The sourcing strategies and consequent challenges to the supply chain will now be discussed.

3.6.3.2 Sourcing strategies

OEMs largely depend on first-tier suppliers. These same first-tier suppliers depend on an extended network of second-, third- and fourth-tier suppliers. A strong, dynamic, innovative base of second- and third-tier suppliers can be found at the roots of the world's most successful automotive industries. Closer cooperation and alliances must be encouraged all along the supply chain. What is already a reality between the OEMs and the first-tier suppliers must be passed onto the relationships between the first- and second-tier suppliers and the second- and third-tier suppliers. A broad and balanced global manufacturing and engineering footprint is critical to success (Kahl & Henry, 2006:24).

Most of the new plants being established in emerging markets by first-tier suppliers are primarily being set up to follow customers, that is, the OEMs which are expanding their own footprints. The opportunities offered by the expanding markets in Eastern Europe and Asia are clearly there to be seized, not only by OEMs, but also by the automotive component and system suppliers. Despite the immediate attractiveness of low-cost or competitive manufacturing, a key consideration for the companies is total landed cost. In other words, the parts may be cheap to manufacture in emerging markets, but once the financial and environmental costs of shipping back to Western Europe or North America have been factored in, long-distance sourcing may be less attractive owing to transport costs (ibid, 2006:24).

According to Haynes (as cited by Lamprecht, 2006a:142) one of the most important automotive technological trends is that the proportion of the automotive industry's R&D work undertaken by suppliers will increase from 40% to nearly 60% by 2010. This trend coincides with unprecedented pressures to cut costs while new models proliferate, become ever more complex and are brought to the market in record time by shortening product development lead times. Over the past three decades the number of basic vehicle segments has increased from four to over 15 and the complexity has increased fourfold. The complexity relates mainly to the electronics content of the average car, which is projected to rise from under 10% in value to an anticipated 40% in value by 2010. The automotive industry's compounding technological complexity arises from model proliferation and increasing regulatory requirements in industrialised nations to mandate better fuel economy, and safety and environmental standards. The OEMs' failure to keep investment in R&D in step with increasing demands is in contrast to the longer-term planning that is a feature of Asian car companies such as Toyota. Toyota is proving to be one of the very few profitable global OEMs with increased sales. Toyota's long-term vision is that R&D investment is a necessary focus as part of its strategy to become the world number one. Automotive R&D budgets have become a victim of the need to cut costs; this without being able to recover the expenditure required by either the selling price or by expanding volumes significantly in mature markets. In addition, the price of an average vehicle in the Triad countries has remained virtually unchanged. To remain competitive, OEMs and their suppliers must develop shared global R&D networks. Furthermore, they also need to

commonise parts more effectively, including reusing those already proven, and amortising their development costs over earlier models.

The sourcing strategies of the OEMs followed by the sourcing strategies of the automotive component suppliers will now be discussed:

OEM sourcing strategies

According to Whitebread (2003:2), evaluation of OEM sourcing strategies requires an in-depth analysis of the following three key areas:

- Firstly, the identification of the major trends in purchasing, manufacturing and product development at all the major light vehicle OEMs.
- Secondly, an assessment of the levels of corporate and market risk associated with current and expected strategic sourcing policies.
- Thirdly, the quantification of the likely volumes for major platforms and individual model programmes under development at the same OEMs.

The shape of the industry is changing as companies other than Ford, Chrysler and General Motors capture market share and invest in new plants, away from traditional manufacturing locations. Suppliers who have historically depended on the Big Three for most of their business are suffering too. In the order of 75% of the value of a car comes from suppliers, and North American supplier relations are among the worst in the world. The difference in their approach to suppliers between the OEMs is vast and should not be underestimated. Some suppliers are benefiting while others are struggling to survive. Survivors will enjoy larger production volumes with longer contracts, but must accept lower prices per unit (Brown, 2007:70–75).

Many OEMs continue to take unique positions reflecting their own philosophies and stances on a competitive advantage. Differences in the OEMs' current and future sourcing strategies could play a major part in driving suppliers to increasingly favour one OEM over another. Every OEM has a different approach to purchasing, but they all share the same goal of bolstering the bottom line with the help of creative suppliers (Whitebread, 2003:6-8; Murphy, 2007:20). The OEMs' different approaches, indicating the challenges the component suppliers have to cope with, in particular those supplying to more than one OEM, are discussed below**.**

Toyota

Toyota is very demanding of suppliers, especially in the quality field, but widely respected by its supply base and still leads the industry with regard to its development/improvement programmes for suppliers. Its increasing global manufacturing footprint has placed significant demands on vendors. The company's conservative stance with regard to module development and supplier responsibility remains. In 2006 the company spent US$29 billion on OEM parts for North American operations. It has in the order of 500 suppliers, including 300 working on the new third-generation Tundra pickup programme. In 2006, more than US$1 billion was spent with minority suppliers, which represents more than 7,5% of its annual purchasing. The company has a 53,5%/46,4% domestic/import mix in the USA (Whitebread, 2003:6–8; Murphy, 2007:21, 22).

General Motors

General Motors is widely regarded among the supplier community as taking the most uncompromising stance with suppliers, especially in the EU. However, the group is at the leading edge of transferring complete system responsibilities to its first-tier suppliers. A seven-year effort to build uniform global platforms across geographic regions is 80% complete, with all vehicles now on global architectures. General Motors has established worldwide "homerooms" of design and engineering expertise. Operations in Russelsheim, Germany focus on midsize cars, South Korea is the centre for mini and compact models, and Australia takes the lead in rear-drive large cars. North America is responsible for full-size pickups, SUVs and cross/utility vehicles. In the past, General Motors operated as four separate companies, each with its own practices; however, it is now operating as one single OEM. The company is taking a global approach to everything from product development to sourcing. In 2006, for the first time, the company was working with global budgets for all aspects of its business. While the product-development budget has not increased, the global process means General Motors can do more with less (Priddle, 2006c:30–33).

In 2006, the company had an US$86 billion annual global budget for OEM parts, including US$61 for North America, and had in the order of 3 200 suppliers globally, including 1800 in North America. In its pursuit of the best automotive component prices globally, it is experimenting with a 7-day fixed production schedule, allowing

large parts such as seats to be sourced over long distances. This means production is fixed for seven days and it is becoming possible to source virtually any part from anywhere in the world. In 2004 the company was enthralled with the possibilities of sourcing components from various low-wage regions of the world for its vehicles manufactured in North America. The economics of such shipments have changed, as has its demand for quality materials and better interiors in general. However, the globally deployed staff of 4 000 is constantly pursuing innovative products and creative ways to ship them to the USA. As the company attempts to streamline its manufacturing processes, it is finding it possible to ship other large parts that for many years have been produced close to the vehicle assembly plant. In Europe the company is also experimenting with the 7-day fixed vehicle production schedule. The company wants to buy more parts in the world where its manufacturing is growing, namely Latin America, Eastern Europe and Asia/Pacific (Whitebread, 2003:6–8; Murphy, 2007:20, 21). General Motors Europe President stated that, in Europe, the company wanted to make productivity savings and enhance efficiency by increasing outsourcing and eliminating 5 136 jobs in Europe during 2008 (Smith, 2008b:3).

Volkswagen

Volkswagen is increasing pressure on its European suppliers to lower prices and, in 2007, demanded as much as 8% in price reductions – up from 2 to 3% previously. Volkswagen is eager to lower its purchasing costs as it seeks to achieve its pre-tax profit targets. It wants to eliminate €5 billion from its material costs by 2008, including €3 billion from the Volkswagen brand by reducing its dependence on European steelmakers and by paying less for automotive components. In 2005 the Volkswagen group's total purchasing volume was €66,1 billion (Stein, 2006b:1).

The company continues to pursue many independent strategies and is reluctant to follow new industry trends, especially in the e-commerce area. It has previously attempted the platform rationalisation move, but prefers to focus on modular automotive components that can be used across a wide range of models. High volumes are available for key suppliers. The move towards a BMW supplier relationship model is apparent as its previous emphasis on secrecy dissipates. The Volkswagen group is working on a 10-year strategic plan up to 2018 that aims to close the productivity and profit gap with Toyota. It is also developing four new architectures

that it will make available to all Volkswagen group brands. The largest of these will be the transverse-engine architecture for small, lower-medium and upper-medium models, which could underpin up to six million cars, making it the industry's biggest platform. The new approach will help the company to manufacture cars faster, cut development costs by up to a year and reduces costs by 25 to 40%. This will help the company to increase its sales to 10 million units by 2018 and challenge Toyota for global leadership (Weernink, 2007b:1).

If the company wants to draw nearer to Toyota, it needs to fix the US market and increase volumes without risking profitability. In terms of productivity, the company should improve design and time to market. Analysts also say that sharing parts and extending the life cycle of automotive components are key focus areas. The company runs the risk of diluting profitability with plans to increasingly produce smaller cars. The question is whether there is enough automotive component sharing across the different models to generate the cost savings they need to produce smaller cars. In 2007, the Volkswagen group's policy shift required its plants in Western Europe to be more flexible. To achieve its goal, the Audi, Skoda, Seat and Volkswagen brands soon could come off the same line, increasing efficiency. This would entail a big strategy shift, as Volkswagen's German factories have traditionally been one-platform, one-plant manufacturing facilities. Volkswagen could then produce in Germany and in Europe for the world market (Whitebread, 2003:6-8; Armitage, 2007:4; Stein, 2007:21).

Since the financial crisis in 2008 the Volkswagen Group has formed a special team in its purchase department to prevent the suppliers they want to keep from collapsing (Bolduc, 2008b:3).

Ford

In 2004, management changes at Ford heralded a new public approach to sourcing strategies, particularly in the EU. Ford's core value of "think value not price" is being emphasised (SACG, 2004:41). Ford employees are urged to treat the company's suppliers better in order to become the customer of choice. In exchange, the suppliers are required to dedicate their best people, invest their best resources and offer their newest technology and innovation to Ford to achieve a competitive advantage. At

Ford, global platform development and sharing (GPDS) is occurring rapidly among its brands under the global system the company has adapted from Mazda. GPDS will trim about 10 months of product development time and reduce engineering costs as much as 60% with increased computer-aided engineering and new ways of tracking materials. Architecture sharing will allow Ford to develop new models at a greater pace. Ford insists its accelerated Way Forward restructuring will be product led (Priddle, 2006c:30–33).

In 2008, the company had an US$70 billion annual purchasing budget. Ford has in the order of 2 500 global production suppliers and the aim is to trim the number to no more than 700 to 800 over time. Ford garnered high marks in the 2007 J.D. Power and Associates Initial Quality Study but ranked dead last on Planning Perspectives Inc's Working Relations Study in 2007, which measures the level of trust between OEMs and their suppliers. The company has been attempting to solidify its collaboration with suppliers through its Aligned Business Framework programme, which was announced in September 2005. The programme aims to develop a sustainable business model to drive mutual profitability and technology advancement. The programme is also intended to cut its key supplier base by 50% while strengthening relationships with select preferred suppliers and improving quality. Having fewer suppliers means that the company can concentrate more of its time and efforts on those areas it intends to expand. In addition to fostering long-term relationships and closer collaboration with suppliers, the Aligned Business Framework is meant to encourage suppliers to get involved earlier in the product-development cycles and to introduce their own innovations on the company's newer products (Whitebread, 2003:6–8; Murphy, 2007:21, 22). Since the financial crisis in 2008 Ford has given loans and speeded up payments to the suppliers they wanted to keep (Bolduc, 2008b:3; Wilson, 2008:20).

Daimler

The company's attitude towards suppliers has hardened in recent years as the emphasis has shifted to performance and accountability. The company, which initially balked at exploiting global synergies, has begun sharing best practices and reaping the benefits of global procurement and common parts between Chrysler and

Mercedes-Benz, identifying component modules for use on all vehicle lines (Priddle, 2006c:30–33).

In 2006, DaimlerChrysler had a US$105 billion annual budget for global procurement and supply, including US$84 billion for production materials. After the German parent acquired the Detroit maker in 1998, it took nearly a decade for the former Chrysler Corp. and Daimler-Benz AG to form a consolidated, globally engaged procurement organisation. Since 2007 with its independence from its German parent company, Chrysler is moving rapidly to establishing itself as an international carmaker and seller. Chrysler, which is still 19,9% owned by what will be known as the Daimler post merger, will take advantage of its partner's distribution system in Europe, meaning the two firms will share vehicle and parts distribution, although marketing and advertising offices will be separated. Chrysler will continue to use the External Balanced Scorecard to rate suppliers based on their performance in quality, technology, delivery and price, while Mercedes has adopted a similar process for evaluating suppliers. It is conceivable they would use the same process going forward, just using two databases. There is a good reason for Chrysler to maintain a sense of unity with its former parent as it navigates through difficult restructuring and contract talks with the United Auto Workers union. It is Chrysler's intention to convey a sense of stability to its suppliers (Whitebread, 2003:6–8; Beeton, 2007b:20, 21; Murphy, 2007:22, 23; Wernle, 2007:6;).

Since the financial crisis in 2008, Daimler temporarily paid higher prices for parts, and provided advice on how to cut costs and how to improve efficiency to those suppliers they wanted to keep (Bolduc, 2008b:3).

Renault-Nissan

The Renault-Nissan Purchasing Organisation is becoming a dominant influence on sourcing, although the two companies' separate structures continue to exist. The short-term emphasis is to cut Nissan's purchasing budget and long-term strategy will mirror Renault's traditional approach to suppliers (Whitebread, 2003:6–8). However, the alliance partners plan to share more parts and suppliers in order to gain new cost cuts from joint purchasing. The push for common parts will require tighter cooperation between the engineering teams of the two OEMs to simplify component designs. The

two companies will also favour suppliers that can service both companies (Greimel, 2008:33).

In the 2006 fiscal year, the company spent US$10 billion on parts procurement. In the same year, approximately 17% of overall purchases were sourced in leading competitive countries and, for 2007, these purchases were planned to increase to 24%. A global challenge for Renault is, rather than volumes and cost, to achieve standardisation in its facilities. The challenge is to reduce costs all over the world as a result of the company's big expansion. The intention is to source tooling from a particular country and use its human resources and local engineering people to manufacture cars at all facilities with the same methodology. The big challenge is how to manufacture a car globally and to adapt the existing technology and capacity in all its facilities. Most manufacturing plants are moving towards flexible assembly lines that allow various models and derivatives to be produced in the exact sequence required by the customers along the same line (Venables, 2006b:41–44; Murphy, 2007:26).

Nissan North America Inc is targeting an increase in the percentage of parts it buys from low-cost countries. Nissan purchases the vast majority of parts for the vehicles it manufactures in the USA from US-based suppliers. However, for certain parts that come from the Japanese home market, Nissan is considering resourcing from Mexico to save cost. Although exchange rates have influenced the decision to source more parts from Mexico, total costs including logistics have been the main reason for the switch. Being in an alliance with French automaker Renault is advantageous in procurement because of the combined companies' vast global footprint. A challenge for Nissan is making sure its suppliers remain successful in an environment where a number of parts makers are in or flirting with bankruptcy. To this end, the company has an Alliance Supplier Improvement Program, in which suppliers pair up with Nissan and/or outside kaizen (continuous-improvement) firms to streamline manufacturing. In the past, Nissan purchasing had no coordinated approach to cope with the many facets of suppliers in trouble. As a result, in 2006, Nissan started its Supplier Revival Group, which consists of first- and second-tier parts makers considered to be in distress. Up to 15% of the company's suppliers are on the list, although no vehicle production line has gone down because of recent supplier woes. The programme has

been a success as very little business, less than 10% over the past two years, has been resourced (Venables, 2006b:41–44; Murphy, 2007:26).

During the current financial crisis Nissan and Renault have retreated from plans to enhance cooperation. The first big change was a withdrawal from joint manufacturing plants in Tangiers, Morocco and Chennai, India, in an attempt to conserve cash. In 2009, Carlos Ghosn, Renault-Nissan CEO instructed his executives to find an additional €1,5 billion. Cost targets include joint investments in products and technology, while reducing costs through purchasing and administrative cooperation (Speer, 2009c:1, 2).

Since the financial crisis in 2008 Renault has speeded up payments to those suppliers it wants to keep (Bolduc, 2008b:3).

BMW

BMW has a conservative stance towards outsourcing and supplier responsibilities but has a high reputation among its supply base for engineering depth and genuine desire to develop partnerships. However, the company demands very high quality and product development standards and is prepared to be first to market models with technical innovations developed by or with major first-tier suppliers (Whitebread, 2003:6–8).

BMW CEO Norbert Reithofer has outlined a broad plan for the company that includes a new-product blitz through to 2020. BMW will launch six new vehicles in the next few years under the BMW, Mini and Rolls-Royce brands. Reithofer stated that the company intends leading all the segments it is active in and is determined to attain the top sales volume in the premium segments. BMW expects to increase its annual worldwide sales to 2 million by 2020, up from the 1,3 million units in 2007. In 2007 the BMW Management Board was strengthened by two new divisions, namely a corporate and brand development division and a purchasing and supplier network division (Kranz & Kurylko, 2007:6). The productivity and financial goals include a €6 billion in efficiency savings, including a reduction in material costs, by 2012. Materials costs make up 53% of the company's cost structure based on its 2006 annual report and reducing that has been a top priority. Further goals include a return on sales of up to

10% by 2012 and more partnerships, including possible new engine-sharing deals (Franey, 2007:1).

Concluding remarks

It would appear that Toyota's strategy to collaborate with suppliers is working, as the company ranked first among suppliers in the Ward's 28th Annual Supplier Survey in 2006. DaimlerChrysler was second after being widely recognised for improving its suppler/OEM relationship. The survey indicated that 59,1% of OEM respondents responded by downsizing their companies and 29,3% of suppliers. The Big Three in the USA had become so aggressive in their price cut demands that 39,5% of the suppliers responded that their company was not offering its best technology to the OEM anymore. Of the suppliers, 66,5% responded that they foresaw a time that suppliers would no longer do business with the Big Three. In 2007, the third annual Automotive News Europe/SupplierBusiness Relations Survey reiterated this notion as Chrysler slipped toward the bottom where it joined General Motors and Ford. Suppliers rated the three OEMs low on a variety of factors, including price-cut demands, technical prowess, and protection of intellectual property, among others. Overall suppliers expressed strong preference for Toyota and BMW. There continues to be a high correlation between profitability and sales momentum and suppliers' rankings (Murphy, 2006:43–46; Snyder, 2007c:18).

Since the financial crisis the OEMs have assisted the suppliers they wanted to keep by encouraging stronger suppliers to take over weaker ones, paying in advance for parts, speeding up payments and temporarily paying higher prices for parts (Bolduc, 2008b:3).

The impact of the OEMs' sourcing strategies on the automotive component suppliers' strategies will now be discussed.

Component supplier sourcing strategies

Auto executives expect that hundreds of automotive component suppliers will close and thousands of jobs will be lost as a result of massive cuts in vehicle production and a tightening credit market since 2008. Some OEMs and big suppliers expect the end result to be positive, as those suppliers that do survive should be better positioned for

them to rebound. Consolidation is essential as the crisis is showing that small companies with small shareholder bases reliant on a small number of clients are not as able to react as effectively as larger firms. Analysts believe that the elimination of weak suppliers will be good for the industry (Bolduc, 2009:3).

According to a survey conducted by researchers SupplierBusiness and Roland Berger Strategy Consultants in December 2008, the most important policy issue for suppliers in 2009 will be overhead cost reduction. A concern over their ability to keep financing their R&D was also expressed. As a result of the latter, the ability of suppliers to take a leading role in developing new green technologies might be affected (Bongard, 2009a:5).

First-tier suppliers are expected to cut costs typically by 4 to 5% annually (Haelterman, 2004:56–60). To achieve the cost cuts, suppliers are pursuing similar strategies to their demanding OEM customers in an effort to reduce their own purchasing costs. These strategies include reducing the numbers of their own suppliers, which is a disturbing development for smaller companies. The pressure to globalise and the subsequent growing need for greater operational scales is forcing suppliers to relocate manufacturing to lower-cost production areas, to change and reduce the numbers of lower-tier suppliers, as well as to more effectively manage their own supply chains. In many cases, suppliers are simply duplicating the hard-hearted measures of their OEM customers and demand annual price reductions from lower tier suppliers, backed by threats of resourcing. As a result, low-cost country sourcing is regarded as the single biggest new strategy in future (Haynes as cited by Lamprecht, 2006a:34).

However, the “made in China” stamp is a symbol of the pitfalls of globalisation as a threat to the economic prosperity of many countries. China’s economic surge and entry into the WTO have sparked alarm across the developing world. Cost differentials from automotive suppliers in China can reduce costs of products by some 70% in certain cases. However, high material costs and rising wages have pushed up manufacturing costs since 2007 (Perrie, 2004:36, 37; Webb, 2007a:5, 30).

Most suppliers want access to Russia’s rapid growth, but also need protection from its rising costs, changeable regulations and volatile car-sales volumes. Newcomers must

overcome Russia's complex bureaucracy, vast distances and immature infrastructure, as well as learn the local relationship-based culture (Snyder, 2007a:28):

Suppliers are increasingly required to cover a disproportionate share of engineering and product-development cost, with little hope of compensation. These responsibilities are spelt out in "global terms and conditions" as written by OEMs. A source of supplier trouble is vehicle programmes that fall far short of the OEM's projected volumes. Other pressure points are volatile raw material prices and unrelenting pressure from OEMs to slash component prices. OEMs deserve top-quality products manufactured to specification every time, on-time delivery, first-rate technology and service, competitive component prices, and collaboration to achieve affordable cost targets. In return, suppliers deserve realistic product volume projections. Healthy suppliers make for healthy OEMs because they can provide better technology and better feature content for the specific OEM (Murphy, 2006:6, 17).

As a result of pressure to reduce costs, lower cost countries are one of the main target areas in the sourcing and outsourcing strategies of multinationals, which will be discussed next.

3.6.3.3 Target countries for potential future sourcing and/or outsourcing

The key reason for developing countries to promote a vehicle assembly industry is to encourage the development of a domestic automotive components industry. This in turn will create jobs, reduce the balance of payments, and stimulate technological capability and a spill over effect into other economic sectors (Humphrey & Memedovic, 2003:19; Black & Bhanisi, 2006: 3).

The relevance of target countries and regions in OEM sourcing and outsourcing strategies becomes evident when considering that Japan transformed its automotive production from inferior to quality in 20 years. At the same time Japan offered cost benefits over the EU and North America. The Koreans, using advanced technologies, were able to narrow the gap in under 10 years while further reducing relative costs. In a similar manner, the Chinese are able to leapfrog competitive suppliers in cost reductions while producing quality products. The Chinese have some distinct advantages over both the Japanese and the Koreans, as they are able to widen the

cost differential substantially and position themselves as serious contenders for automotive world supply dominance. In this regard Brazil and India are also target regions. Economies of scale offered by a rampant OEM sector and rapidly growing aftermarket provide lower prices. Global competitiveness is enhanced by access to the large markets of the world, the availability of cheap labour and the ability to gear up with the latest technology (Perrie, 2004:36, 37).

Black and Bhanisi (2006:3–5) identify four types of industry location in considering the prospects for the growth of the automotive industry in the developing world. The first is big emerging markets, such as China and India, which have clear advantages in that they constitute large existing markets with huge potential and high levels of protection for domestic manufacturers. A key barrier to the expansion of the industry in countries with small domestic markets is economies of scale. A second category includes countries which are part of regional trade blocs, which collectively can constitute viable automotive areas. These countries include Brazil and Argentina in Mercosur and Thailand and Malaysia in the Association of Southeast Asian Nations (ASEAN). The third category is defined as countries on the periphery of large existing market areas and includes countries such as Mexico and new members of the EU, such as the Czech Republic and Poland. The final category includes countries with independent strategies such as Korea.

South Africa manifestly lacks the attributes of a big emerging market, is not on the periphery of a major market and is not part of a significant trading bloc as far as the automotive industry is concerned. For the South African automotive industry the integration of SADC into a free trade area has potential long-term opportunities. South Africa also does not have home grown firms or governmental strategy capable of driving a successful Korean style independent strategy. These attributes, or rather lack of them, have implications for how South Africa is perceived by the major global decision makers and how they choose to position South Africa within their global networks. In terms of its market size, population, income level and economic growth rate the country is at the lower end of what is required by the global OEMs in respect of their expansion strategies to allocate production and increase market share (Black & Bhanisi; 2006:3–5). However, South Africa has and is still attracting new generation, export-oriented investments in vehicle and automotive component plants locally. Ford

Motor Company of Southern Africa has announced details of an US$195 million investment in a new pickup model to produce 110 000 units annually from 2011 in South Africa as well as 180 000 Puma diesel engines annually from 2010 onwards (Smith, 2008b:8, 16, 18).

Currently, all the world's manufacturers are faced with the problem of cutting their prices by 30% at least or simply to source from China. Research conducted by the Merage School of Business, UC-Irvine, as part of the China Price Project, indicates that China's competitive advantage in 2008 was that for every single US dollar the rest of the world spends on manufacturing, China produces the same product for just 18 cents. The eight major economic drivers of the China price identified include: 1) low wages accounting for 39% of the China price advantage; 2) industrial network clustering saving another 16%; 3) export subsidies contributing 17%; 4) the continuing undervalued currency contributing 11%; 5) counterfeiting and piracy development and research costs saving of 9%; 6 & 7) minimal health and safety enforcement as well as lax environmental regulations enforcement adding another 5%; and 8) the catalytic role of foreign direct investment into China as the leading developing country of foreign direct investment (Macfie, 2008:34–37).

A popular Western trademark will not necessarily enjoy the same success in China and an uninformed choice could cost a trademark owner dearly. It is important to consider the local customs, cultures and taboos before deciding on a mark. The colour white is the colour of mourning in the Chinese tradition and may not be the best choice for packaging material. Certain shades of red, on the other hand, suggest power, prosperity and authority (Du Plessis, 2007:16, 17). It is also advisable to translate or transliterate a Western trademark into Chinese, given that the majority of Chinese citizens do not speak or read English or any other Western language. A direct translation of a Western word is, however, not always possible. In addition, a single sound can be represented by several characters, some of which may not have an appropriate meaning for purposes of translating or transliterating a trademark (ibid, 2007:16, 17).

As far as India is concerned, the Society of Indian Automobile Manufacturers has announced an ambitious Automotive Mission Plan to raise automobile sales to

US$145 billion by 2016. The Plan will require a US$35 to US$40 billion investment to achieve the goal, four times what has been invested over the last 16 years. In 2006, Honda, Nissan and Suzuki confirmed their commitment to the country, announcing expansion projects that are an acknowledgement to India's ever-growing importance as a centre of automotive expertise. Renault, Ford, Fiat and Hyundai also announced major investments in India (Schweinsberg & Shah, 2006:33, 34, 35; Smith, 2008b:8, 16, 18). One advantage India and Thailand offer over China is high-quality local suppliers. However, parts produced in China are still up to 20% less expensive than in Thailand and 10% less expensive than in India (Webb, 2007b:29).

Interest in Central and Eastern Europe as an investment destination for vehicle and automotive component manufacturing is high as an alternative to manufacturing in Western Europe. Investors are attracted by the availability of highly skilled and inexpensive labour, as well as favourable tax regimes and improving macroeconomic conditions. In addition, the countries are still close enough to supply Western Europe in a highly responsive manner, and the domestic markets are themselves expanding. There is some transfer of vehicle production from Western to Eastern Europe, but equally there is substantial new investment by OEMs that are stepping up their European presence, such as Toyota and Hyundai. Certainly, companies that are looking to expand manufacturing operations in Europe are currently most likely to invest in Eastern Europe rather than in the West (Brown, 2006:68–73).

However, BMW has invested €1,3 billion in Germany to increase its European production capacity for the 3-series. The company chose Germany over other lower cost Central or Eastern European countries partly because it wanted to prove that manufacturing in Germany can still be competitive. In particular, the company was able to agree on flexible working agreements that it would not have been able to achieve in other countries, such as the Czech Republic, which was also under consideration for investment. Porsche also chose to build its second plant in Germany as "made in Germany" is considered a competitive advantage (Brown, 2006:68–73).

A report entitled "Innovation in emerging markets 2007", published by the Deloitte Global Manufacturing Industry Group, showed that, despite the size and remarkable growth of emerging markets, a number of manufacturers are falling short of achieving

their business goals. Focusing on the operational issues facing manufacturers in China, India, South-East Asia, Latin America and Eastern Europe, the report confirms that global OEMs, which once regarded emerging markets primarily as low-cost locations for routine operations, are locating higher-value activities in these rapidly growing economies. These types of operation require higher-skilled employees, who are in short supply in emerging markets. Beyond the competition for skilled labour, OEMs are also facing other often unfamiliar challenges, such as how to protect intellectual property, legal and regulatory issues, and geopolitical issues. Those companies achieving success appear to have tailored their strategies to capitalise on local knowledge and respond to the unique needs of the market. From a policy perspective, it does suggest that moves towards increasing skills levels in the economy are both correct and important. In addition, it also suggests that efforts to instil political certainty and stability, while increasing transparency and decreasing red tape, could become a significant comparative advantage in reaching out to new manufacturing industries (Creamer, 2007c:7).

The associated risks in the continuous pressure for cost savings, increased market share and higher profit margins are evident in the global automotive environment. In addition, new technology and innovation in products are ongoing in an attempt to differentiate products from those of competitors as well as to satisfy demanding consumers. Global automotive trends and developments in innovation and new technology will be discussed next.

3.6.4 NEW TECHNOLOGY AND INNOVATION

The integration of electronics into cars has been the greatest paradigm shift in automobile design since the car was first developed (Campbell, 2004:21). In 2003 less than 5% of new cars sold globally had telematics-enabled features. In 2007 electronics and software represented more than 20% of the cost of vehicles and analysts project growth of up to 35% or even 40% by 2010. In a premium car, electronics and software telematics can contribute as much as 50% of the OEM's profit (Haynes as cited by Lamprecht, 2006a:38; Frank, 2007:13).

Automotive technology stems mostly from the USA with a 40 to 50% share, the UK with 20% and Germany with 20%, although increasingly technological innovation is coming from Japan (Mabokano, 2004:7; KPMG, 2005b:12).

The main thrust of global automotive competition at present is in product development. Each OEM is trying to compete in every segment of the market with a plethora of niche models designed to attract particular groups of consumers and to renew the models rapidly enough to keep interest fresh (Mercer, 2004:18–20). Owing to intense competition and the stagnant markets, the only way to grow is to take market share away from competition. Being the first in a new segment will result in quick sales, higher profit margins and a higher market share. According to KPMG (2009:27), fuel efficiency improvements, alternative fuel technologies and environmental pressures are considered the three most influential automotive industry trends over the next five years up to 2013. According to Mayer (2008a:4) growing demand by the OEMs for innovative systems to save fuel and cut CO_2 emissions will strengthen suppliers. OEMs will need to tighten their ties with the supplier industry as they are developing the more efficient power train concepts, lighter materials and other technologies to improve vehicle efficiency.

The attempts by the global automotive industry role-players to introduce new technology and innovation into products are not necessarily driven by consumer demand but by global regulatory demand. The automotive environmental requirements will be discussed next.

3.6.5 AUTOMOTIVE ENVIRONMENTAL TRENDS

According to PriceWaterhouseCoopers (2008:23, 29, 30) passenger car use accounts for about 12% of emissions of CO_2, but the automotive sector is often seen as the primary suspect. In many parts of the world measures are being developed to reduce greenhouse gas emissions from passenger cars. Varying standards present a challenge for the automotive industry, which is already suffering from high competition and low margins. There are already about 600 million vehicles on the world's roads. The International Monetary Fund estimates a figure close to 3 billion by 2050. In 2000, cars emitted approximately 2,6 billion tonnes of carbon dioxide, or about 6,1% of overall emissions and this figure could reach 6,8 billion tonnes or 8,1% by 2050. In

terms of the number of cars on the road, CO_2 could be decreased by a changeover from petrol to diesel, the use of biofuels, a change in driver behaviour, and a move towards smaller, less gas-absorbing vehicles. The OEMs also need to take the demands of the consumer into account when addressing environmental issues. Consumers expect safety and comfort, as well as state-of-the-art equipment, resulting in heavier and consequently more energy-absorbing vehicles. The hike in oil prices, however, is a significant factor that is gradually inducing consumers to demand smaller, more cost-efficient vehicles.

According to the Energy Information Administration (EIA), in 2007 consumption of oil worldwide reached nearly 85,9 billion barrels a day (b/d). Comparing these numbers with the amount of oil produced in 1990 at 66 million b/d and the amount projected to be produced in 2030 at 117,7 million b/d, the appetite the world has for oil is clearly not decreasing (Poirier, 2008:12). While OEMs and their suppliers are scrambling to provide greater fuel efficiency, politicians rush into placing tax incentives and governments begin mandating new fuel formulations.

According to Campbell (2004b:21), in essence a balance must be struck between the needs of the industry, the demands of the market and the vital preservation of the earth's environment. The need exists to reduce gaseous and particulate emissions from motor vehicles for health and environmental reasons and the standards are getting stricter. Five clear phases in future energy for vehicles have been identified:

- Optimisation of the internal combustion engine
- Improvement of conventional fuels
- CO_2-neutral biofuels
- Hybrid vehicles
- Fuel-cell technology

The increasing focus on climate change, emission control and fuel consumption has resulted in a generally toughened stance on controlling and limiting the damage caused to the environment. The leading obstacle to fuel cells is the infrastructure that will have to be created to support them, not necessarily the manufacture, transportation, storage, distribution and retailing of hydrogen (Campbell, 2004:21). Fuel cells are still about ten times more expensive to make than internal-combustion

engines, while costs, technical and safety problems remain to be resolved in setting up a distribution system to get hydrogen into cars (Mercer, 2004:18–20; Emslie, 2005:16).

R&D of alternative fuels has enjoyed heightened enthusiasm following crude-oil price rises and the future availability of supplies becoming more insecure. A number of OEMs have responded to these concerns and have committed them to curbing the damage to the environment by developing a variety of hybrid vehicles, electric vehicles and biofuel vehicles. Currently, hybrid vehicles are the most mainstream and widely used eco-friendly cars. In the order of 70% of the 283 000 hybrid vehicles manufactured in 2006 went to the USA, 21% to Japan and 8% to Western Europe. Toyota remains at the forefront of the hybrid-producing pack with its Prius model. The Toyota Prius represents the quiet revolution that is about to engulf the car industry itself. Toyota is leading the revolution and is pioneering the industry's move into new kinds of environmentally friendly vehicles with a cleverly marketed and commercially viable product. The widespread use of all-electric, non-polluting vehicles, using hydrogen fuel-cell systems, is probably still 10 to 20 years away. The Prius, with its little electric motor performing as a supplement to its petrol engine, is just a small step in that direction. However, it is significant because it represents two things that promise to transform the entire car industry – new technology and new production methods (Smeets, 2004:11; Spadavecchia, 2007:54, 55).

There are lots of uncertainties and risks: the economic viability is very dependent on where gas and diesel prices go. Commercial interest influences government subsidies, which make ethanol blends competitive at the pump. Since 2000, the worldwide production of ethanol has reportedly doubled and use of bio-diesel has grown fourfold. France reportedly is aiming for biofuels to represent 5,75% of its transportation fuels by 2008 and 7% by 2010 as opposed to 1% in 2005 and 3,5% in 2006. Some 75% of French cars run on diesel, but no European OEM is onboard the ethanol train. Many global OEMs insist new-generation, "clean" diesels are the medium-term solution to improved fuel efficiency and cleaner air. Brazil's dedicated flex-fuel vehicles, capable of running on any mix of gasoline and/or ethanol, were launched in 2003 and sales continue to climb reaching 71% of total sales in July 2006. The USA is the largest producer of corn-based ethanol followed by China. Brazil ranks

first in ethanol overall output producing slightly less than half of the world's total in 2004 (McClellan, 2006:30–38).

Biofuels are expected to help carmakers achieve the last 10 grams per kilometre of CO_2 reduction to reach the EU's likely target of 120g/km by 2012. Yet serious doubts remain about the actual CO_2 savings offered by certain crops. There is also widespread perception that increased demand for biofuels will push up global food prices. National tax incentives have made E85 bio-ethanol (85% ethanol, 15% gasoline) a popular choice in Sweden, with almost half of all new vehicles running on this fuel. Volvo, Ford and Saab have been leading the push toward bio-ethanol in Europe (Bongard, 2007:12,15).

Alternatives to energy sources are also pursued by OEMs. The energy bill signed by President George Bush in late December 2007 mandated tougher fuel-economy standards in the USA. The new law states that the automotive industry in the USA must raise its fleet-wide fuel-economy average by 40%, to 15 kilometres per litre by 2020. With the introduction of such new standards in the past, the automotive industry has historically responded by lowering the weight of vehicles, which meant less steel and more aluminium, rubber and plastic. According to OEMs and analysts, a 10% drop in weight yields an approximate 6% improvement in fuel economy. While Europe favours small cars, manual transmissions and diesel engines to offset higher fuel prices, US OEMs believe they can make cars lighter and more energy efficient without sacrificing size (Crawford, 2008:82). In a 2007 report undertaken by research house Knibb, Gormezano and Partners (KGP), together with the European Aluminium Association, it was found that European OEMs' use of aluminium has seen an average increase from a mere 50 kg to 132 kg over the last 16 years. According to the report, European OEMs used two million tonnes of aluminium components in new passenger cars in 2005, which, based on its calculations, allowed for one billion litres of fuel to be saved annually. This also means reductions of an estimated 40 million tonnes of CO_2 emissions over the vehicle's life span (Rutkiewicz, 2007:8).

In addition to CO_2 emission requirements, waste is one of the biggest environmental problems of the future and the reason for minimising the impact of end-of-life vehicles. The EU End-of-Vehicle-Life (ELV) Directive, relating to waste originating from

vehicles, has had a number of far-reaching implications for automotive exporters exporting to that continent. Some of the Directive's requirements include very strict targets for the recycling and re-use of vehicle components, while substances of concern have been identified which may no longer be used during manufacturing. To ensure compliance to the ELV specifications, every supplier within the OEM supply chain is required to have evidence of the concentration levels of these elements in their respective parts (Linsky & Rossouw, 2007:60, 61).

3.7 GLOBAL AUTOMOTIVE INDUSTRY PERFORMANCE INDICATORS

The long-term implications of market maturity in the Triad economies and substantial opportunities in emerging markets force a reshuffling of the global ranking order relating to automotive vehicle production and sales. The drivers for change will come both from within and outside the global automotive industry, but cumulatively will have a profound effect on the industry and its performance.

The global automotive industry performance indicators in respect of its financial performance, employment levels and investment intensity will be discussed next.

3.7.1 GLOBAL AUTOMOTIVE FINANCIAL PERFORMANCE AND PROFITABILITY

For most of the last ten years the automotive industry has performed poorly. If this situation does not change, many more jobs will be lost and many more companies will fall into financial difficulties. Theories for the poor performance include inappropriate products, excessive brand proliferation, slow reaction times, ineffective management, inflexible and overpaid labour, and progressively more stringent legislative demands on emissions and fuel economy. The automotive industry fails to learn from its mistakes. According to Flint (2007:48), the following mistakes or misconceptions are constantly being made by the industry; an explanation for each is also given:

- You can shrink your way to success by closing factories and laying off workers – making cost-cutting the major goal always leads to disaster. Only production leads to success.
- You must rationalise the industry – this implies shutting your plant.
- Americans will buy a cheap little car – small, cheap cars are regarded as cars for poor people, and even the poor people do not want them.

- Platform consolidation is the answer – the chassis contributes as much to the personality of a vehicle as any of its other components.
- We can always squeeze parts suppliers to cut costs – how do you get cheaper parts out of bankrupt suppliers?
- Do not offend your buyers with radical design – they want conservative styling as indicated by focus groups.

Profitability projections by the OEMs, as well as those of automotive components suppliers are showing a downward trend. Reasons for this include the continued transfer of market share from Detroit to Tokyo and Seoul, record oil prices, record high sales incentives, rising steel, rubber and plastics costs, coupled with rising interest rates in Triad countries, as well as the persistently weak US dollar. The highly competitive atmosphere and the pressure to cut costs are having a significant impact on industry profitability. The OEMs are more pessimistic in their profitability expectations than the automotive component suppliers. The reason for the price war is simple – increased competition in net profits (KPMG, 2005b:3; KPMG, 2006:3, 4). The OEMs can be expected to cut investment in new platforms, technologies and production sites in developing countries, which could impact negatively on South Africa as well.

3.7.1.1 OEM profitability

Historically, OEMs have looked to global expansion as a way to generate incremental market share and profitability. However, globalisation has led to increased levels of competition in almost every market around the world (PWC, 2006:6). Growth in the mature markets remains static while OEMs need to strategically position themselves in dynamic emerging markets to benefit from growth opportunities. However, without the right strategy and execution in mature markets, traditional OEMs cannot profit from emerging markets. This reality has meant a strong focus on restructuring in mature markets in recent years, by either cutting capacity or moving to lower-cost locations (PWC, 2008:6).

Table 3.5 reflects the depressed profitability trend of the top 15 global OEMs from 2005 to 2008. Two OEMs made net losses and 10 made a net profit of less than 5% in 2008.

Table 3.5: Major OEMs' profitability trends – 2005 to 2008

Indicator	2005	2006	2007	2008
Average net profitability level (before tax) as a % of sales	1,50%	2,57%	2,31%	1,77%
Median net profitability level (before tax) as a % of sales	2,56%	2,40%	2,27%	3,51%
Lower quartile profitability level	1,58%	1,42%	1,18%	1,83%
Upper quartile profitability level	5,32%	5,15%	4,85%	4,73%
Number making more than 5% net profit	5/15	4/15	4/15	3/15
Number making less than 5% net profit, but still profitable	8/15	9/15	9/15	10/15
Number making net losses	2/15	2/15	2/15	2/15

PriceWaterhouseCoopers (PWC), 2006; PWC, 2007; PWC, 2008

According to Carson (2004:3, 4), the OEMs' average profit margins have declined from 20% or more in the 1920s to around 10% in the 1960s and less than 5% over recent years, while some are losing money. Many car brands continue to lose money from their core operation of manufacturing cars and are surviving by cross-subsiding this high profile part of their business with financing and inflated parts prices. The USA is regarded as the utopia for new car buyers. Competition, however, is so fierce that dealers make in the order of US$25 profit from the sale of a new car. Insurance premiums and financing are their bread and butter (Marais, 2007:19).

For almost 15 years, J.D. Power and other research firms have consistently rated Toyota and its luxury line, Lexus, among the top automotive brands in terms of reliability, initial quality, and long-term durability. Toyota is also the most profitable OEM. In the financial year ended March 2007, Toyota made a profit of US$13,7 billion, whereas General Motors recorded a loss of US$38,7 billion, its biggest loss ever. In 2006, Ford reported a loss of US$12,61 billion. In 2007 Toyota's market capitalisation of US$186,71 billion was more than one and a half times General Motor's of US$16,6 billion, Ford's of US$15,7 billion and DaimlerChrysler's of US$81,77 billion combined (Stewart & Raman, 2007:74). However, Toyota is expected to post a US$5 billion loss in the 2008/2009 financial year. This loss would be a big turnaround from the 2007/2008 financial year's profit of US$28 billion and its first annual loss in over 70 years (Furlonger, 2009:50). Nissan's financial results for the financial year 2007/2008 showed a net loss of US$2,32 billion (Murdoch, 2009b:14).

According to Goldman Sachs (as cited by Speer, 2009b:1), in 2008 the operating profit of the European OEMs provided a better picture than in the USA. The operating profit for BMW was €1,53 billion or 2,8%, Daimler €5,01 or 5,3%, Fiat €3,23 billion or 5,4%, PSA €957 million or 1,7%, Renault €606 million or 1,6% and Volkswagen €6,15 billion or 5,5%. In 2009, operating profit for Daimler, Fiat and Volkswagen is estimated to decline while the operating profit for BMW, PSA and Renault is estimated to be negative.

According to Furlonger (2009:50) Standards & Poor (S&P) considers General Motors, Ford and Chrysler C-negative. The rating implies that the Detroit Big Three's business risk is rated as vulnerable and their financial risk described as highly leveraged, which means that they are as deep in debt as it is possible to be. BMW, Daimler, Fiat, Peugeot, Hyundai and Kia have also all seen their credit ratings marked down in 2008 and 2009. Honda, BMW, Daimler, Volkswagen and Suzuki received an A rating from S&P. Nissan, Peugeot, Renault, Fiat, Hyundai and Kia occupy the satisfactory B middle ground; Mazda and Tata are weak and Mitsubishi just fractionally better than the Detroit Big Three. Toyota's business profile is considered excellent with a Triple-A rating and its financial risk profile is regarded as minimal.

The main reason the Big Three in the USA remain uncompetitive in profit performance is that the manufacturing solutions they are implementing have not yet become routine, disciplined and universally understood aspects of their business practices and corporate cultures. Structural issues are the main reason. The Big Three fail to achieve a profit from vehicle sales; they are also offering the highest incentives. In flexibility, General Motors has made enormous progress. It has a diverse range of brands and it produces more models per platform than any of the other major six American manufacturers. However, General Motors is at the bottom of the scale in respect of volume achieved per model. Toyota is at the top but at the bottom of the ranking on models per plant. The company rarely produces more than one model at each USA plant while General Motors is now producing, on average, more than two models per plant. When Toyota needs new capacity, it builds a new plant to meet demand. It is replacing imports with domestic demand so it knows the plant's capacity will be maximised and it can respond to the market by scaling up or down imports as needed. The plants in Japan are flexible, thus the plants in America do not need to be.

Toyota is striving to achieve commonality by means other than using shared platforms. It estimates that it has saved US$8 billion over the past five year up to 2006 by finding ways to use standard automotive components in a wide range of vehicles. It is also working to reduce the costs of high-value automotive components such as brake and suspension systems by 30%, by sharing product development across models (Brown, 2007:70–75).

Western European sales data, from market researchers JATO, shows that most OEMs rely on their three best-selling models for more than two-thirds of their sales. For premium carmakers Audi and BMW, that dependence is even higher at 92% for Audi and 81% for BMW. Of the 22 brands that sold more than 100 000 units in Western Europe in 2006, the average sales attributable to the top-three models rose to 69,8% compared with the 68,3% a year earlier. The common wisdom is that market fragmentation gives the car buyer more choice, which increases the chance he or she will actually buy one of these cars. The production of all those variants, often built on the same platforms and using the same sheet metal, is a relatively low-cost way to broaden the offering. The numbers, however, show that more models do not automatically mean more profit. Skoda is highly profitable and does 99% of its unit-sales volume with only three models. However, Seat with a small model offering is losing money. Toyota and Kia, with sales spread across a broader range, are profitable. Product quality, a strong brand, flexibility in manufacturing and cost control thus is more important in product offerings (Crain, 2006:10).

In the 2008 survey of global brand values released by branding consultancy Interbrand and New York-based publication BusinessWeek, Toyota topped the OEM brand values among the Top 100 brands ranked globally with a brand value of US$34 billion. It was ranked sixth overall on the Top 100 listing and was followed by 2) Mercedes Benz; 3) BMW; 4) Honda; 5) Ford; 6) Volkswagen; 7) Audi; 8) Hyundai; 9) Porsche; and 10 Lexus. Ford slipped by 12% and Audi made the most upward progress of 11%. Hyundai achieved its best result since debuting on the list in 2005. Toyota states that its largest gains in brand value have been experienced in emerging markets like India, Korea, Russia and Brazil owing to its investment in continuous quality improvements (Murdoch, 2008d:16).

Competition amongst the OEMs is unlikely to dissipate. The established OEMs will have to reinvent themselves to seek profit and not just market share, otherwise new, nimbler competitors will take advantage of technological changes to do the job for them. The impact of the pressure on OEMs' profitability and consequently on the automotive component sector's profitability will now be discussed.

3.7.1.2 Component sector profitability

OEMs are increasingly moving vehicle manufacturing down the supply chain to the point that suppliers are responsible for two-thirds or more of the content of many car models globally. This makes both the component suppliers and the OEMs vulnerable if the relationships between them deteriorate. In far too many cases these values are based on the principle of coercion, not collaboration. The attitudes of the OEMs are reflected in their financial performance and the value of their companies. A positive sign is that more OEMs have realised that such damage to their supply chains will be to their own detriment. The emphasis is starting to move from forcing cost reductions out of suppliers to collaborating with them to get costs down, while preserving viable margins. Toyota, the fastest growing global OEM, has the development of good relationships as one of its core values. Ford and Daimler, two global OEMs that are in crisis, have pursued cost-cutting strategies that have created particularly adversarial relationships with their suppliers. Toyota and Honda have placed the emphasis on collaborative partnerships with suppliers resulting in jointly solving problems (Haynes as cited by Lamprecht, 2006a:44). US suppliers are particularly at risk as they focus so much of their business on their North American OEM customers (Furlonger, 2009:50).

Table 3.6 reveals the profitability trends of the top 20 major automotive component suppliers from 2005 to 2008. In 2008 four automotive component manufacturers made net losses while nine made less than 5% net profit.

Table 3.6: Major automotive component manufacturers' profitability trends – 2005 to 2008

Indicator	2005	2006	2007	2008
Average net profitability level (before tax) as a % of sales	1,01%	0,53%	1,91%	3,36% (1,11%)*
Median net profitability level (before tax) as a % of sales	2,68%	2,73%	3,12%	2,09%
Lower quartile profitability level	0,46%	(1,58%)	0,78%	0,31%
Upper quartile profitability level	4,98%	3,86%	4,85%	4,02%
Number making more than 5% net profit	5/20	4/20	5/20	4/17**
Number making less than 5% net profit, but still profitable	10/20	10/20	11/20	9/17**
Number making net losses	5/20	6/20	4/20	4/17**

PriceWaterhouseCoopers (PWC), 2006; PWC, 2007; PWC, 2008

* Average net profitability of the major component manufacturers, excluding the 27,44% net profitability of Delphi Corporation resulting from a one-off payment by General Motors in 2008.

** Three component suppliers' net profitability not available at the time

The automotive component suppliers are increasingly expected to take on more responsibility from the OEMs. New product design and introduction are important elements in the quest for increased market share. A good measure of potential future innovation is research and development expenditures as a percentage of total revenue. In 2007 supplier research and development expenditures ranged from 0,23 to 7,96% and averaged 3,80%. Supplier capital expenditures as a percentage of total revenue in 2007 ranged from 1,67 to 8,86% and averaged 4,76% (PWC, 2007:49, 52).

Denso, the top supplier globally in 2008, blamed the company's slowdown in Europe on the increasing costs of raw materials, the region's weak car sales, and static car production by its customers there. The company's operating profit in Europe increased by 5% in the 2008 financial year. However, its European operating profit more than doubled in the previous financial year, hence reflecting the decline in marketing conditions in 2008. In order to cope with rising raw material costs, the company will 1) request its suppliers to absorb some of the costs; 2) change the size and specifications of some products to reduce the use of materials; 3) use materials more efficiently during production to avoid waste; and 4) recycle and reuse the waste from materials. Robert Bosch GmbH indicates that the company passes on half of its material costs increases to customers. Continental AG aims to pass on one-third (Bolduc, 2008a:1).

Some suppliers are abandoning sectors in which they acknowledge they can no longer compete. This is indicative of how tight margins are and how tough the challenge is to remain viable, even if a company can achieve the enormous volumes achieved by the top global OEMs and have control of new technologies to enjoy competitive advantages.

OEMs are generally becoming more active in pursuing a larger share of the aftermarket and are increasing their participation in aftermarket sales and services through car dealerships, enabling them to dictate the terms to parts suppliers. The aftermarket, defined as the manufacture and sales of replacement parts and accessories, has been neglected but is profitable and could compensate for decreasing profits. The number of vehicles in use increases annually and the aftermarket, supplying replacement parts, is growing in tandem.

The poor financial performance of the global automotive industry will not, however, be resolved over the short term and its consequent impact on the industry's employment levels will be discussed next.

3.7.2 AUTOMOTIVE EMPLOYMENT

Key data from the International Organisation of Motor Vehicle Manufacturers (OICA) 2009 reveals that direct global automotive employment represented in excess of 5% of the world's total manufacturing employment. Table 2.4 reveals that nearly 8,4 million people were directly employed in the manufacture of vehicles in 2007.

China, with 1 605 000 people, employed the most direct employees in the automotive manufacturing sector, ahead of the USA, Germany, Russia and Japan. In addition to direct employment in the automotive industry, about five times more people are employed indirectly in related automotive component manufacturing and service provision industries.

Table 3.7: Direct automotive industry employment by country, 2007

Country	Direct employment
China	1 605 000
USA	954 210
Germany	773 217
Russia	755 000
Japan	725 000
Spain	330 000
France	304 000
Brazil	289 082
India	270 000
South Korea	246 900
Turkey	230 736
UK	213 000
Italy	196 000
Thailand	182 300
Canada	159 000
Other	1 164 006
Total	8 397 451

Source: International Organisation of Motor Vehicle Manufacturers (OICA), 2009

In the case of South Africa, in 2008 in the order of 35 900 people were employed in the vehicle manufacturing sector with nearly 69 000 people employed in the automotive component sector and 195 000 in the motor trade sector. All in all, in the main 39 automotive manufacturing countries, more than 50 million people owe their jobs to the automotive industry (NAAMSA, 2009a:18; OICA, 2009).

The OEM and the automotive component sector employment will be discussed next.

3.7.2.1 OEM employment

The inability of many leading US and EU OEMs to be competitive in Western Europe is as a result of strong currencies coupled with high wages and health, pension and other social measures. General Motors, in what is regarded as one of the most inclusive retrenchment plans in the USA since 2002, is planning to close 12 plants and

retrench 30 000 employees from 2005 onwards. Mr Rick Wagoner, General Motors CEO, cut General Motors's payroll by a third in 2006. The exodus of workers includes 4 600 accepting buyouts and 30 400 retiring, reducing the US hourly manufacturing headcount by 28%. General Motors cut US$9 billion in expenses in 2006 and expected to save US$8 billion annually in structural costs beginning in 2007 (Smith, 2006:26).

Ford Motor Company's restructuring plan to restore North American profitability calls for additional plant closings, the selling off of former Visteon Corp. plants, a 30% reduction in salaried workforce and buoyant offers to all its United Auto Workers Union employees. These and other measures will result in reduced operating costs of about US$5 billion by the end of 2008. The white-collar cuts expected to be completed by the end of 2008 will call for the elimination of an additional 10 000 positions on top of the 4 000 already announced in January 2006. The company is also pushing up its announced goal to shed 25 000 to 30 000 hourly jobs, originally set for 2012, to the end of 2008. Plans announced are to close eight plants in North America. Rapid shifts in consumer demand as well as continued high prices for commodities affected the company's product mix (Pope, 2006:16). Together with the 4 000 employees retrenched by Ford, the 89 000 employee losses experienced in 2005 in the US automotive sector were close to the record set in 2001 (*Beeld*, 2005b:28).

The greatest competitive threat to Detroit is the Japanese-based Toyota Motor Corp., Honda Motor Co. and Nissan Motor Co. Ltd., which have set up production facilities in North America. According to Ward's 2007 data, in the last 25 years, Japan's Big Three have sparked a market share shift of 20 percentage points. In the battle of the Big Six, General Motors, Ford and Chrysler own 63% of the US market, compared with 83% in 1982, while Toyota, Honda and Nissan have a 37% market share compared with 17% in 1982. With increasing material prices and unfavourable exchange rates, which the US OEMs are powerless to offset, labour costs are a primary means to improve competitiveness. Including the cost of pension and health-care benefits for active employees and retirees, in 2007 General Motors, Ford and DaimlerChrysler paid labour costs of about US$73 per hour per worker. The Japanese transplants' labour costs were US$48 per hour. Annually, the difference totals US$8,6 billion. This trend suggests a cost gap increase from US$25 to US$31 by 2009, as the per-hour rate

grow to US$82 for Detroit automakers and US$51 for the transplants. The total difference would then be US$10,7 billion. In addition, there is a productivity gap that brings direct pressure on pricing: the estimated average for hours worked per vehicle is 33,4 for General Motors, Ford and DaimlerChrysler, and 30,4 hours per vehicle for the transplants. The 3-hour differential adds US$1 002 to the cost of every unit manufactured by a Detroit OEM. At the current rate of cost growth even if Detroit OEMs pull even on the productivity scale at 30 hours per vehicle, industry forecasts suggest the transplants would still enjoy a per-unit advantage of US$939 by 2009 (Mayne, 2007:38–42).

The Centre for Automotive Research (CAR) data shows one out of every five direct automotive industry jobs in the USA was lost between 1999 and 2006, despite new capacity added by foreign OEMs. In 1999, 1 128 400 US workers were employed directly by the automotive industry, however, by October 2006 the number was down to 903 100. A study by the Level Field Institute, established in part by Detroit Big Three retirees, shows that domestic OEMs on average support 2,5 more US jobs per car than foreign-based manufacturers, despite large cuts in their production capacity. Domestic OEMs will support approximately 1,7 times more jobs per car than Honda, 2,5 times more jobs per car than Toyota, and 6,6 times more jobs per car than Hyundai. The Level Field Institute, however, fails to recognise that Asian OEMs need fewer workers and are more profitable because of their highly efficient manufacturing strategies. A 2006 study by Harbour-Felax Group showed health care for active employees costs General Motors US$515 per vehicle versus US$125 for Toyota. Retiree health-care costs accounted for US$1 120 per vehicle for General Motors, while Toyota had none (Schweinsberg, 2007:30–33).

The developments by the OEMs will subsequently impact on the automotive component suppliers' employment levels as well. However, expansions of foreign operations in low cost areas could benefit from the plant closures in the USA. In this regard South Africa has already benefited via the investment by General Motors in the production of the Hummer 3 (H3) in 2006 for exports to other markets.

3.7.2.2 Component sector employment

Analysts predict that 500 European automotive component suppliers will go out of business in the first quarter of 2009, which is about 10 times more than in an average year. It is estimated that about 10% of the European automotive sector's 12 million jobs will be lost during 2009. Germany will be hit the hardest with a loss of 30 000 jobs in vehicle manufacturing and 20 000 by the suppliers. The health of the supply chain is imperative considering that 75% of the parts in an average European car comes from automotive component suppliers. Suppliers are hurting because the OEMs are reducing orders by up to 50% and banks are raising rates on loans or cutting back on lending completely. A number of OEMs are trying to help their suppliers by temporarily paying more for parts and other measures. Measures taken by suppliers include extended holiday plant shutdowns, cutting the number of temporary workers, halting investments that are not urgent, reducing the length of workdays, halting production on certain days and cutting jobs (Mayer, 2008b:3).

All the OEMs and suppliers are turning to global purchasing, particularly sourcing from China, to try and balance their books in a climate of unprecedented pressures on their pricing. The price pressures not only impact on employment levels in the industry but also drive the investment decisions, which will be discussed next.

3.7.3 AUTOMOTIVE INDUSTRY INVESTMENT INTENSITY

Investors generally tend to adopt a two-stage process when evaluating countries as investment locations. The first stage is to screen countries based on fundamental determinants such as macroeconomic stability. Only those countries that pass these criteria go on to the second stage of evaluation where the tax rates, grants and other incentives may become important. For some export-oriented investors the tax incentive can be a major factor in their investment location decision. Most countries employ a wide variety of incentives to realise their investment objectives. Foreign direct investment brings capital and facilitates the transfer of technology, organisational and managerial practices and skills as well as access to major markets. Competition is therefore fierce as more and more countries are striving to create a favourable and enabling climate to attract foreign direct investment as a policy priority. Developed countries more frequently employ financial incentives such

as grants, subsidised loans or loan guarantees. It is generally recognised that such financial incentives have a direct drain on government budgets and for that reason they are not generally offered by developing countries. Instead, fiscal incentives are used by developing countries, as they do not require the upfront use of government funds. However, countries rarely provide incentives without specific conditions being attached to them (UNCTAD, 2000; Hanival, 2003:1–3).

OEMs are constantly looking for areas and nations that are attractive to sell in and, aside from domestic demand situations, also countries that are sufficiently attractive to establish manufacturing facilities in. Factors that make a nation attractive for establishing a manufacturing facility include the basics of access to transport, raw material availability, relevant utilities, labour skills and economic and political stability. The stability aspects include local content prescriptions, tariffs, a facility for profit repatriation, incentives in the structure and trade agreements (Mercer, 2004:18–20). Foreign direct investment is increasingly moving to higher labour skills and competitive advantages include lower wages, a well-educated labour force and proximity to markets (CBI, 2004a:9). Despite the automotive sector's weak performance, projections are that the demand for vehicles over the next 20 years will exceed the demand of the previous 110 years since the industry's existence. The increased demand would need 170 to 180 new assembly plants alone, each producing 300 000 units. The need for the new capacity would see investments worth about US$80 trillion going into the industry (Haynes as cited by Lamprecht, 2006a:47).

According to KPMG (2009:21) investment in new models and in new technology is expected to increase. Expectations of investment increases in marketing, new plants and logistics have declined substantially. Survey respondents stated that the most manufacturing capacity over the next five years up to 2013 will be built in Asia. For 2009, however, Goldman Sachs forecasts an average 20% decline in capital expenditure, especially in emerging markets owing to the global financial crisis (Speer, 2009a:1, 2).

Table 3.8 reveals that the OEMs have continued to add new assembly capacity around the world.

Table 3.8: Investments in euro billion in research, development and production by country, 2007

Country	Investment euro billion
USA	30 416
Germany	11 900
Japan	6 450
China	5 330
France	4 196
Italy	3 450
Spain	2 740
Canada	2 496
South Korea	2 239
Egypt	1 661
UK	1 590
Malaysia	1 263
Brazil	1 141
Indonesia	1 071
Slovakia	1 056
Other	7 802
Total	84 801

Source: International Organisation of Motor Vehicle Manufacturers (OICA), 2009

Vehicle assembly and manufacturing in developing countries have increased significantly over the past two decades. Based on the OICA 2009 key data compilation, nearly €85 billion was invested in research, development and the production of vehicles in 2007. PriceWaterhouseCoopers (2008:74–77) states a similar figure, averaging that the OEMs invested US$109 billion in 2007. The automotive industry also plays a key role in the technology level of other industries.

In 2007 investments by the OEMs in South Africa comprised R3,2 billion while in the order of R2 billion was invested by the automotive component sector (NAAMSA, 2009b:3). Although the capital expenditure was relatively large in a South African context, it was small in comparison with the investments attracted by other countries globally.

The new member states of the EU in Central Europe, and in particular Poland, the Czech Republic, Hungary and Slovakia, have attracted large increases in vehicle and automotive component production investments. Central Europe has an ideal balance in terms of a favourable cost structure for Western Europe and quality advantages for Eastern Europe. Cultural understanding makes Central Europe the best base from which to explore the Russian and surrounding markets. Central European governments have understood their vital role in effecting change and charting a new course for their automotive industry and the impact of their policies is starting to be reflected in the structure of new projects flowing in. Continents such as Africa, India and Latin America are mentioned as growth areas, but their economies are not developed sufficiently to support major imports from Western Europe. Eastern Europe's automotive industry has on its horizon the pending investment of more than US$4,3 billion by Volkswagen AG, Suzuki Motor Corp., PSA Peugeot Citroen, Kia Motors Corp. and Renault SA. The Slovak Republic is expected to manufacture four million vehicles annually by 2009 and generate sourcing opportunities of more than US$21 billion. None of this success would be possible without strong governmental efforts promoting macroeconomic reforms in order to stabilise the region. Several investor-friendly policies have been implemented. The major agent for change goes by the name of foreign direct investment. The abolition of trade barriers in the early 1990s that accompanied EU entry attracted various companies which identified Central Europe as an ideal manufacturing hub (Schweinsberg & Shah, 2006:36; Struminsky, 2006:22–29).

However, all the initial features that generated the Detroit East label are slowly starting to fade away as wages become higher, investment incentives less attractive and qualified labour less available in the emerging markets. According to the Federation of European Employers, Eastern Europe enjoys a compensation rate of two-thirds less than levels paid in the West. For automotive workers, this meant US$11,57 per hour versus US$34,70 in 2006. The wage gap is also prompting competition within Western Europe as Belgium has restructured its payroll taxes to ensure that automotive workers are paid US$1,26 less than in Germany. Some analysts say that this labour cost advantage will diminish to a certain extent but it will nonetheless remain. The Czech Automotive Association, however, states that wages only represent 8 to 15% of

the total costs of the final product (Schweinsberg & Shah, 2006:36; Struminsky, 2006:22–29).

China's automotive sector, in accordance with its commitments under WTO trade liberalisation, is transforming greater space for foreign automotive companies. China's market size is potentially huge and is used as the main leverage for luring automotive investments. Several foreign OEMs have announced investment plans amounting to US$13 billion in the country up to 2010. China has more than 5 000 component production plants and 130 vehicle facilities. An ambitious export plan, which aims to export cars and automotive components of between US$70 billion and US$100 billion by 2010, has been unveiled. Foreign OEMs are required to operate via a joint venture, with a 50% ceiling on their interest. Component manufacturers are not subject to this restriction (Davies, 2004; KPMG, 2005a:6).

In the 1990s, when the OEMs invested in emerging markets, the major automotive component suppliers were pressured to follow their major customers and were attracted by the growth potential of these markets. This "follow" sourcing strategy does not appear to create opportunities for domestic firms in developing countries, as in most cases OEMs choose transnational firms that already supply the OEMs with parts. With the restructuring of the supply chains this means that opportunities for domestic automotive component manufacturers are mainly confined to the second-tier manufacturers with limited design functions. The opportunities for second-tier suppliers are associated with specialisation and upgrading competences, with some development for product innovation, as well as privileged access to the Triad markets through trade preferences. The scenario described above reiterates the fact that the future of the automotive industry is shaped largely by the production and sales strategies of transnational companies (Humphrey & Memedovic, 2003:31–33).

3.8 SUMMARY OF CHAPTER 3

The automotive industry is a global industry dominated by a few OEMs, mainly concentrated in the Triad countries of North America, Western Europe and Japan. The markets in the Triad countries are mature and plagued by vehicle production overcapacity, cost pressures and poor financial performance. The intense competition for increased market share by the OEMs is resulting in challenges as well as

opportunities for developing countries that are able to provide the twin benefits of huge factor cost savings and enormous growth potential. Owing to the different approaches and cost-cutting strategies of the leading OEMs in the Triad economies to balance the automotive supply and demand sides, major global trends arise. These underlying global trends include M&A, global production overcapacity, outsourcing and sourcing strategies, new technology and innovation as well as environmental requirements.

The major global trends have a significant impact on the development and future of the global automotive supply chain role-players, as well as the developed and developing automotive producing countries and regions. Developing countries, which are targeted to add value to the global strategies of multinational companies, attract large-scale investments in production facilities for CBUs and automotive components. Governments around the world are therefore actively attempting to promote their countries in attracting automotive investments via government policy and support measures. These are done in recognition of an automotive sector’s benefits to the economy, despite the current under-achievement by the leading OEMs and their suppliers.

CHAPTER 4: THE EVOLUTION OF SOUTH AFRICAN AUTOMOTIVE INDUSTRY POLICY

4.1 INTRODUCTION

One aspect that distinguishes the motor industry from other industrial sectors is the importance of government policies in steering its development. The policies that have driven the South African automotive sector are central to understanding the sector's history and its recent accomplishments (Flatters, 2002:2). According to Kettledas (2008:7), international best practice in policy formulation is foregrounded on five key principles. The five principles are openness, participation, accountability, effectiveness and coherence. A policy that lacks these key ingredients often fails.

Chapter 4 focuses on the evolution of the automotive industry policy regime in South Africa over the past century. References include the International Trade Administration Commission (ITAC) reports and other sources since 1932 which outline the key policy instruments at the time. Key government automotive policy instruments, including the MIDP introduced in September 1995 and the consequent impact and implications of these policy changes on the South African automotive industry, will be discussed. The background information serves as a frame of reference for this study, which is to analyse the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008).

4.2 OVERVIEW OF EARLY DEVELOPMENTS IN THE SOUTH AFRICAN AUTOMOTIVE INDUSTRY

Historically, the motor industry tended to be confined within the national boundaries of developed countries. While the leading players, on a national basis, exported the finished product to other markets, the decentralisation of manufacturing capability, particularly in the component area, was rare. Although certain motor industry giants owned manufacturing capability in countries other than their respective countries of origin, in general the development of the motor industry in developing countries was largely confined to assembly operations. Governments, driven by the desire to increase the local content of motor vehicles assembled in their countries, provided a powerful driving force, which established a significant degree of localised automotive component manufacture. These locally produced automotive components, in many

cases, substituted progressively more of the imported automotive components. In promoting the development of the automotive industry, South Africa followed a programme of import substitution similar to that adopted in other developing countries (Byers, 1990:3; Black & Bhanisi, 2006:5).

From the 1940s to the 1970s, the import substitution route to economic development was popular with most countries aiming to move closer to developed countries such as the USA, France and Great Britain. Japan and the Asian countries were able to build a strong industrial manufacturing base through the import substitution process. However, import substitution carried the dangers of price inefficiencies and stagnation as a result of monopolistic tendencies. Due to the diversity of vehicles assembled in many countries, and South Africa was no exception to this, the ability of the domestic manufacturers to achieve the economies of scale required to produce automotive components at a competitive price, was constrained. The domestic manufacture of automotive components therefore often resulted in escalations in the price of vehicles as the local content increased (Chiaberta, 2004:25–28).

Table 4.1 summarises the key policy instruments used by the South African government to develop the domestic automotive industry, supplemented by comments on the developmental consequences thereof.

Table 4.1: Summary of automotive policy development in South Africa

Period	Key automotive policy instruments	Development and comments
1910	The import duty on cars was set at 15% ad valorem, with a 3% rebate facility, and on aftermarket components was set at 20% ad valorem (ITAC, 1949:62).	(1913) Chevrolet started to distribute cars in South Africa (Botha as cited by Lamprecht, 2006a:53).
1915	An increase of the import duty on cars to 20% ad valorem, with a 3% rebate facility (ibid, 1949:62).	
1924	An increase in the import duty on passenger cars to 20%, 22% and 25% ad valorem. The higher duties applied to the higher valued cars. The 3% rebate facility was withdrawn on British cars (ibid, 1949:62). An increase in the import duty on assembled or unassembled trucks from 3% ad valorem to 20% ad valorem and on chassis for these vehicles, assembled or unassembled, to 5% ad valorem (ibid, 1949:69).	(1924) Establishment of Ford Motor Company of South Africa. The coastal location allowed for the easy importation of components (ITAC, 1949:5). Model T assembly comprised 13 000 units in 1924 (Swart, 1974:164).

Table 4.1: Summary of automotive policy development in South Africa - continued

1926	A reduction of the import duty on chassis for bodies from 20 to 10% ad valorem in order to promote domestic body manufacturing (ibid, 1949:63). The first reference to used cars in the tariff. The import duties on used cars were set at similar rates to those for new cars (ibid, 1949:66). A reduction of the import duty on parts and materials for chassis and bodies for cars to 15% ad valorem, subject to certain conditions (ibid, 1949:64).	(1926) Establishment of General Motors South African Limited (ITAC, 1949:5).
1929	A reduction of the import duty on assembled or unassembled chassis on trucks from 5 to 3% ad valorem (ibid, 1949:67).	(1929) The South African Bureau for Labour Statistics indicated that the automotive industry showed the greatest instability of employment of all the industries. The changing of models annually, which caused certain plants to close down for a month, the perception of automotive assembly as low and semi-skilled, as well as low unemployment rates at the time were reasons mentioned for this phenomenon (ibid, 1949:35).
1931	Provision made for the first rebate facility for the importation of certain parts and materials for the assembly of cars as well as bodies for cars (ibid, 1949:73, 74).	
1932	An increase in the import duty on cars by an additional 5% (ITAC, 1932a:3). The imposition of an exchange dumping duty on cars from the UK and Canada (ibid, 1932b:2).	
1934	Various rates of protective duties on identifiable automotive components recommended and implemented based on industry petitions (ITAC, 1949:71–73). Provision was made for unassembled chassis for cars, set at 10% ad valorem, and for bodies, parts and materials, set at 12,5% ad valorem (ibid, 1949:65).	(1933) Vehicle assembly by Ford and General Motors increased to 33 000 units per annum (Swart, 1974:164). (1934) Long-term automotive policy was still to encourage domestic manufacturing of automotive components as well as for the import duty difference between assembled and unassembled cars not to be too big (ITAC, 1960:29, 83).
1939	The ad valorem import duties on cars, chassis and body parts were switched to specific duties at rates equal to the ad valorem duty rates (ibid, 1949:62).	(1939) Establishment of National Motor Assemblers Ltd in Johannesburg. The company assembled various vehicles on contract for several overseas OEMs. Components such as glass and tyres were being manufactured both as original equipment and for the replacement market (Swart, 1974:164). The average South African vehicle age was 5,5 years (ITAC, 1949:13).
1947	The specific import duties were switched back to ad valorem duties as well as increased to 25% and 30% ad valorem on cars. The higher duties applied to the higher valued cars (ibid, 1949:63).	(1943 to 1945) Imports and assembly of cars came to a standstill owing to World War II (ITAC, 1960:15). (1947) Five assembly plants were operational in South Africa with a capacity design of 83 000 units. All plants focused on US brands, except for General Motors, which also assembled the British Vauxhall (ITAC, 1949:6, 7). (1947) South Africa was ranked seventh out of 141 countries in terms of global vehicle use with a ratio of 26 persons per one car (ibid, 1949:5). (1948) The first installation of moving production lines took place at General

Table 4.1: Summary of automotive policy development in South Africa - continued

1947 cont'd		Motors and Ford (ibid, 1949:38). (1948) A high rate of imports led to problems with the balance of payments. Import control was instituted through the granting of monetary quotas. This limited the number of imported vehicles and CKD kits (Swart, 1974:164)
1956	An excise duty was introduced on cars based on vehicle mass (ITAC, 1960:59).	(1950–1957) Passenger vehicle sales averaged 36 000 units per annum. When the import quotas were eliminated sales increased to 100 000 units in 1957 (Swart, 1974:164). (1958) South Africa was ranked ninth in the world's passenger car parc (number of registered vehicles), above other vehicle-producing countries such as Brazil, India, Japan and various European countries (ITAC, 1960:9). (1958) Eight OEMs operated in South Africa, of which five were foreign owned and assembled 75% of total vehicles assembled. Three OEMs assembled vehicles on contract on behalf of other companies. Seven of these firms were situated at the coast with the component manufacturers in close proximity. The increase in the local content of vehicles, from single digit levels to 18%, was regarded as a significant process of evolution (ibid, 1960:15, 22).
1959	Recommendations were made to develop the automotive industry in South Africa. These recommendations included an increase in the duty on passenger cars and light commercial vehicles; to levy an excise duty on domestically assembled vehicles and completely knocked down (CKD) kits; to provide additional protection to domestic component manufacturers; and to create rebate provisions subject to local content requirements (ibid, 1960:85).	
1961–1963	Phase I of the local content programme was introduced with the objective to increase local content in mass from 15 to 40% (ITAC, 1988:4). The ad valorem duty on imported motor cars was set at 35% plus an additional percentage up to a maximum of 100%, depending on the value and the weight of the car. The level of excise rebates on motor cars varied between 15% (for a local content of between 25% and 30% by weight) and 75% (for a local content of more than 70%). Components generally attracted a duty of 20% ad valorem (ITAC, 1965:2).	(1960) South Africa produced 120 000 vehicles, more than any other developing country in the world. The local content level was only 20% (Black, 2007:73). (1963) The main competition for the domestic vehicles did not stem from imported cars but from other domestically assembled vehicles with a lower local content. The position vis-à-vis a competitor was broadly determined by the degree to which the cost premium attached to the higher priced domestically sourced components were offset by the additional excise rebates for the higher local content (ITAC, 1965:2).
1964–1969	Phase II of the local content programme was introduced to increase the nominal local content in mass from 45% in 1964 to 55% 1969. This was equivalent to a 50% net local content, as redefined. The determination of the net local content was complicated and required government approval for certain parts, sub-assemblies or materials, as local content (ITAC, 1988:4; ITAC, 1965:22).	(1964) Record new vehicle sales of 143 373 units was achieved in the domestic market (ibid, 1965:7).

Table 4.1: Summary of automotive policy development in South Africa - continued

1971–1976	Phase III of the local content programme was introduced, with a minimum net local content of 52% at the beginning of 1971, to increase to 66% on 1 January 1977 (ITAC, 1988:4).	(1975) The 13 OEMs operating plants in South Africa assembled 39 models and were supplied by 300 automotive component manufacturers. The GDP contribution of the automotive sector was 3,3% (ITAC, 1977:8, 70).
1977–1978	Phase IV of the local content programme comprised a two-year "standstill" phase. This was to assist industry in consolidating its position after the severe narrowing of profit margins during the previous three years (ibid, 1988:4).	(1979) Disinvestments by General Motors and Ford occurred owing to the sanctions against South Africa (Gelb, 2004:41–45). (1976–1986). The number of OEMs decreased from 16 to seven and the number of models produced from 53 to 20. This was owing to recessionary conditions, the significant devaluation of the rand in 1984 and 1985 and escalating domestic inflation. All seven OEMs recorded losses in 1985 (ITAC, 1988:26, 63, 64).
1980–1988	Phase V of the local content programme was introduced with a minimum net local content of 66% by mass, in respect of motorcars, and 50% by mass, in respect of light goods vehicles and minibuses (ibid, 1988:7).	(1980–1984) Locally manufactured engines, gearboxes and axles for commercial vehicles were introduced. ADE and ASTAS were accorded the rights to be the sole manufacturers for the engines and gearboxes, respectively, for commercial vehicles. The ADE engine had a price disadvantage of 100% against the free on board value of an imported engine. A total of 19 commercial vehicle assemblers operated in the domestic market (ITAC, 1985:8, 10).
1989–1995	Phase VI of the local content programme was introduced and involved a radical change in the calculation of local content based on value as opposed to mass. Phase VI encouraged local OEMs to increase local content from an industry average estimated at 55% at the inception of the programme to 75% (including exports) by the year 1997. Phase VI sought to reduce the foreign exchange used by the vehicle manufacturing industry by about 50% over the period 1989 to 1997. Local content was defined as the ex-works price less foreign currency used, including profit and overheads. This meant that pricing could be used to create local content. The import duty on aftermarket parts and components for motor vehicles was increased to 50% ad valorem and on passenger cars to 100% ad valorem, whether or not assembled. Exports were allowed and accounted to be part of the local content value. An excise duty of 40% on the value of locally assembled vehicles applied, of which up to 37,5% was rebated based on the local content level (ITAC, 1989:26–33). The effective rate of protection for the industry was calculated to be in excess of 400% (MITG, 1994:31).	(1989) A budgetary constraint was placed on Phase VI in that the programme had to be self-funded. Thus the ordinary excise duty and excise duty rebate had to be equal (ITAC, 1992:2). (1991–1994) Samcor exported vehicles from South Africa in 1991, Volkswagen in 1992 and BMW in 1994 (Damoense & Alan, 2004:264). (1992) Price comparisons of passenger cars between South Africa and Germany, Japan, the USA, the UK and Australia reflected a South African price disadvantage of up to 72%. The lowest-priced car category prices were competitive but in the higher-priced categories the price inelasticity enabled OEMs to achieve higher margins (IDC, 1993:15–17). (1993) The seven OEMs produced 39 different passenger car and light commercial vehicle models (MITG, 1994:35).

Table 4.1: Summary of automotive policy development in South Africa - continued

1994	A reduction of the import duty on passenger cars to 80% ad valorem from 1 January 1994 (ITAC, 1994:1).	
1995	A reduction of the import duty to 75% ad valorem on passenger cars from 1 January 1995. The payment of a 15% surcharge on passenger cars and 5% on commercial vehicles was exempted (ibid, 1994:1). Implementation of the MIDP.	

Source: Lamprecht, 2006a

Table 4.1 highlights the cause–effect relationship between the developmental automotive policy and the production and market structure that applied to the South African automotive industry. The market structure dictated policy and vice versa. The first automotive policy attempts to develop the domestic automotive industry commenced in 1959; phase 1 of six phases of local content programmes was introduced in 1961 up to 1995, and this was followed by the introduction of the MIDP.

4.3 IMPACT DERIVED FROM SOUTH AFRICA'S AUTOMOTIVE POLICY EXPOSITION

According to Flatters (2002:2) a successful automotive industry is often seen as an emblem of economic success and, especially in developing countries, as a sign of mastery of modern technologies. Past experience has shown that the overall regulatory regime in South Africa is very important in determining the actions of automotive firms. In the past, high tariffs were placed on CBUs, which, when combined with a rapidly growing market, acted as a magnet to a large number of initially foreign OEMs to establish assembly plants in the domestic market. These operations, although in many cases highly profitable, were very small in international terms with correspondingly high unit costs. Production was aimed solely at the domestic market. South African assembly plants were kept isolated from the global production networks of the parent companies except as markets for completely knocked down (CKD) packs (Black, 1998:5; Black & Bhanisi, 2006:5). The key automotive policy developments in South Africa will now be discussed in more detail.

4.3.1 AUTOMOTIVE INDUSTRY DEVELOPMENT IN SOUTH AFRICA UP TO 1961

The initial phase of automotive industry protection, lasting until 1961, was one of classic import substitution favouring simple assembly for the domestic market. As

revealed in Table 4.1, high protective tariffs on imported vehicles fostered the development of an industry of small plants. A relatively wide variety of models in small volumes at high cost and with low local content were produced. Local content requirements were supported by punitive tariffs on imported components. After World War II, government targeted the automotive sector as an economic growth area. The automotive sector was seen to have both growth potential and synergies with other economic sectors (Flatters, 2002:2).

4.3.2 PHASE 1 TO PHASE 5 OF THE LOCAL CONTENT PROGRAMMES

Between 1961 and 1988 five distinct phases of government support for the industry can be identified, as revealed in Table 4.1. The phases focused on continued domestic market protection and a variety of incentives and requirements to increase local content and further encourage OEM-component linkages (Gelb, 2004:41–45). The industry's reliance on imported tooling and designs, technologically sophisticated plant and machinery as well as high-value automotive parts contributed to the large outflow of foreign exchange. The depreciation of the domestic currency at the time resulted in increased import prices (Damoense & Alan, 2004:264). The real price variance set in after 1984, just when the rand's exchange rate went into freefall against major automotive-source currencies (Zhuwakinyu, 2003:7).

Contrary to government expectations, rising local content requirements did not reduce the number of assembly operations in the country. Rapid growth was thus accompanied by an increase in the number of OEMs and also the development of a low volume component industry oriented to the production of heavier components, owing to local content being measured on a mass basis. South Africa was the only country globally where local content was based on mass. Local content was calculated by relating the mass of defined local components to the total mass of the vehicle. All the OEMs thus focused on the heaviest automotive component first (Swart, 1974:241, 243).

A series of International Trade Administration Commission (ITAC) (previously Board on Tariffs and Trade, previously Board of Trade and Industry) reports recognised the need to encourage higher production volumes, the advantages of standardisation and the need for rationalisation. However, proponents of more interventionist policies

based on the need to rationalise the industry by limiting the number of OEMs and pushing up the local content level to 90% did not prevail. Thus, prohibitive rates of protection were maintained on CBUs, no restrictions were placed on the number of OEMs entering the market and local content requirements remained at fairly low levels (Black, 1998:5).

Government attempted to keep pace with the automotive industry by correcting for unanticipated responses to each set of new incentives. It was not recognised, for instance, that defining local content requirements in terms of weight of components would have perverse effects on the mass of South African manufactured vehicles. Another problem identified was that maintaining high nominal protection resulted in increases in effective protection, perpetuating inefficiencies resulting from excessive product variety and short production runs. Government responded to the latter problem with increases in local content requirements, which were intended to raise production costs and thus force some rationalisation of production. In the late 1970s this had the desired effect of rationalising the range of product lines, but at the expense of higher production costs and hence increased consumer prices (Flatters, 2002:5). The situation was aggravated by a severe slump in the economy, which followed the golden boom of the early 1980s. Exports were minimal, but with the increased introduction of highly sophisticated components, it had become increasingly easy to meet the mass-based local content requirements while increasing the value of imported components (Black, 1998:6).

During the 1980s, the international campaign against the apartheid regime intensified as political instability in South Africa increased and many foreign companies exited (Gelb, 2004:41–45). A distinctive feature of the development of the South African automotive industry relates to the imposition of sanctions, which resulted in disinvestment by the two largest North American OEMs, General Motors and Ford. These two companies were the early pioneers in South Africa and both firms sold their holdings to domestic parties. Not all OEMs responded in this way to the sanctions environment and the two German assemblers, Volkswagen and BMW, continued to operate in South Africa through wholly owned subsidiaries. Another German assembler, Mercedes-Benz, maintained its 50% equity in Mercedes-Benz South Africa. At the same time, two new Japanese entrants, who came to have a dominant

share of the market, Toyota and to a lesser extent Nissan, started to assemble vehicles in South Africa under franchise.

Apart from the direct German equity in the OEM industry, there was very little foreign presence in the industry through to the early 1990s. The various local content programmes and the sanctions era created an artificially diverse domestically owned automotive components industry in South Africa. In essence, government's various policy mechanisms forced OEMs into purchasing from domestic component firms, thus giving the components industry a level of political economic leverage. Up until the mid-1990s the automotive industry in South Africa was dominated by mainly domestically owned OEMs encouraged into "partnership" with domestic automotive component firms. The encouragement firstly took the form of a carrot, as the domestic OEMs were provided with significant levels of protection from their global competitors to the extent of 115%. Secondly the encouragement took the form of a stick, as the OEMs had to meet the government's local content requirements and purchase much of their inputs from uncompetitive domestic component manufacturers or pay severe excise penalties. Very little new automotive investment was recorded over the period from the late 1980s to the mid-1990s (Gelb, 2004:41–45).

4.3.3 PHASE VI OF THE LOCAL CONTENT PROGRAMME

Phase VI of the local content programme, introduced in 1989, marked a substantial change of direction. It was the first attempt to address the problems of an inwardly oriented, overly fragmented industry with low volume output and associated high unit costs. Local content was to be measured by value rather than mass and, most importantly, local content was to be measured not just by the value of domestically produced components fitted to domestically assembled vehicles, but on the net foreign exchange usage basis. In other words, exports by an OEM counted as local content. Exports, especially of automotive components, grew. Firms cited the increased availability of incentives, the desire to increase the scale of production as well as improved product quality as the major factors motivating exports. Rising exports gave the OEMs greater flexibility in their sourcing arrangements (Black, 1998:6; Black & Bhanisi, 2006:6, 7).

In its initial form, the objective of the programme appeared to be to reduce the amount of foreign exchange consumed by the motor manufacturing industry and stimulate the demand for lower priced, non-luxury vehicles. Against the background of the economic conditions in the country, the decline in per capita earnings in South Africa and the growing problems of vehicle affordability, the fundamental ideas surrounding the introduction of Phase VI seemed to be soundly based. The most beneficial element of the Phase VI programme appeared to be the incentive it gave to the development of an automotive export orientation. Exports under Phase VI received an effective subsidy in the form of a rebate of excise duty of 50 cents in the rand. All exports were channelled via the OEMs and automotive component exporters had to negotiate the extent of the subsidy that they received. Automotive component manufacturers usually received 60 to 70% of the rebate or 30 to 35 cents per rand of exports (Black & Bhanisi, 2006:7).

If a domestic OEM was able to reduce its net consumption of foreign exchange by exporting, it was able to achieve a far greater degree of freedom with the local content it achieved on an individual model basis. Thus, calculations were corporate rather than model based. On the surface, the programme appeared to favour those companies who were subsidiaries of overseas OEM parent companies. The foreign-owned subsidiaries could move goods, tooling and technologies backwards and forwards with greater ease than the wholly South African owned OEMs. The foreign-owned subsidiaries, however, lobbied ITAC to change the rules against the background of the complaint that expensive luxury vehicles were being discriminated against in the programme. The reason for this was that the imported automotive components for many of the vehicles produced by the German OEMs were the expensive drive line components and high-tech electronics. It appeared that the foreign OEM subsidiaries did not appreciate at the outset the flexibility they had with regard to the potential re-export of labour intensive automotive components and in a number of instances, CBUs. The South African owned contingent appeared to be more supportive of the programme. This was primarily because the use of the export incentive provided them with the ability to be more flexible in the model ranges they could offer and the profits they could make, based on the rebates for achievement of foreign exchange consumption targets. In addition, in a number of instances a far greater degree of localisation of relatively expensive automotive components in the vehicles produced

by the domestically owned OEMs, compared to those manufacturing luxury vehicles, took place. The localisation of these expensive components gave them an advantage, based on better entry levels of value-based local content (Byers, 1990:76–80, 86; Black & Bhanisi, 2006:7).

On the negative side, however, the movement towards further localisation of expensive automotive components, in many cases, necessitated significant investments to increase domestic capacity in the hands of either the OEMs or the automotive component industry. In several instances, this meant the creation of capacity for certain specialised automotive components which, if confined to almost static domestic demand levels, exacerbated the problem of prices for the consumer. If the achievement of the Phase VI programme had to be met without the balancing export capability of the industry, a rapid increase in the price of new vehicles was anticipated at the time, whether or not the local content targets were met. In its present format, it was not believed to drive South Africa into being a global player and to achieve the economies of scale needed to reduce the cost of motor vehicles in the country. Exports were seen under the Phase VI local content programme as the solution to many problems. However, exports for the sake of exports, which ignored the need for reciprocity with suppliers where both parties were happy, could have led to disaster for the suppliers at the time. The motor industry was regarded as a long-term industry and needed to build up sufficient confidence over time to meet its commitments and gain its rewards or fail. It was this requirement more than any other which justified certain regulation. However, regulations which could change twice within the space of 18 months did not make it easy to forge the reciprocal agreements required to achieve the balance between local content and exports, as well as participation in the global marketplace (Byers, 1990:76–80, 86; Black & Bhanisi, 2006:8, 9).

During the 1980s, after observing the export success of the East Asian economies, a variety of steps were taken by government to promote exports from South Africa, particularly via the General Export Incentive Scheme (GEIS) in the late 1980s. During the period 1 April 1990 to 30 June 1997, certain South African automotive exporters registered under the GEIS scheme. The bodybuilders for medium and heavy commercial vehicles received R250 million in assistance from the Department of

Trade and Industry (DTI) under the GEIS scheme (DTI, 1997b:9). Light motor vehicles and their components were excluded from the GEIS scheme; instead, light vehicle exports were funded through the excise duty structure. Consequently the cost of the incentive was built into the price of the domestically assembled vehicle (MITG, 1994:14). In addition, automotive companies in South Africa were still insulated from more demanding markets and continued with outdated forms of manufacturing organisation. Automotive exports, all channelled via the OEMs, increased from negligible volumes to R2,25 million in 1994 and included a variety of components, but mainly stitched leather seat parts and catalytic converters. The benefit for the OEMs was that they were able to offset part of their local content requirements through exports. The German-based OEMs were in an advantageous position in developing international networks and markets as they were wholly owned subsidiaries at the time. Most of the firms that were exporting in the early 1990s had not been doing so a few years previously and the incentives played an important role in getting firms to consider exports as a growth area and to establish marketing and distribution functions (Black, 2007:77, 78).

According to Black and Bhanisi (2006:10) Phase VI was intended to encourage both local content and specialisation. However, it did not address the major factor impacting on the scale of production in the automotive component sector and the proliferation of makes and models in the domestic market. In fact, the impact was rather the reverse. By increasing the flexibility of automotive component sourcing and hence reducing protection on automotive components, but at the same time maintaining the high nominal protection level on CBUs, the effective rate of protection on CBUs increased sharply under Phase VI. This led predictably to an increase in the variety of models and makes being assembled domestically, in spite of the stagnant market. Phase VI came in for heavy criticism, resulting in frequent changes, adding to the atmosphere of uncertainty.

In October 1992 the Motor Industry Task Group (MITG) was appointed to re-examine the programme and the future development of the South African automotive industry (ITAC, 1995:5). The MITG's recommendations led to the formulation of the Motor Industry Development Programme (MIDP), which will be discussed next.

4.4 MOTOR INDUSTRY DEVELOPMENT PROGRAMME (MIDP)

The MIDP, implemented on 1 September 1995, was the next stage. The programme continued the direction of Phase VI and entrenched the principle of export complementation. However, it went a step further by abolishing local content requirements and introducing a tariff phase down (Black, 1998:6). The rationale behind the implementation of the MIDP, the aim of the MIDP, the programme's objectives, the operations of the MIDP, the three MIDP Reviews, as well as the technical parameters of the MIDP, will now be discussed.

4.4.1 RATIONALE BEHIND THE IMPLEMENTATION OF THE MIDP

Most developing economies rely on the primary sector for external revenue (DTI, 1997b:3). Hence a crucial consideration for developing countries, and specifically South Africa, was how to base the process of continued liberalisation on the growth of an export-oriented, secondary or manufacturing sector. This notion of export-oriented industrialisation, driven by the manufacturing sector, has become a key ingredient in South Africa's economic growth strategy. South Africa has gone through a double liberalisation since 1994, namely political and economic. Economic liberalisation started as the country reintegrated into the global economy and was given further impetus in the late nineties by policy-driven trade and financial liberalisation. For such liberalisation to provide any benefits, a consistent package of policies, including some level of macroeconomic stability, was implemented (Davies & Van Seventer, 2003:9).

It was recognised that South Africa had a small domestic market; hence, increasing global market access for domestic goods and services became one of the key elements identified to grow the South African economy (Chiaberta, 2004:25–28). Furthermore, government introduced policy initiatives such as trade policy reforms, changes to its Competition Policy, geographic incentives such as the Industrial Development Zones (IDZs) and labour policy reforms. The adoption of the Growth, Employment and Redistribution (GEAR) strategy, implemented in 1996, required government commitment to trade and industrial policies. The aim of these policies was to promote an export-oriented industrial economy to be integrated into the regional and global environment which was fully responsive to market trends and opportunities (Gekis, 2004).

The Motor Industry Task Group (MITG) was appointed to make recommendations for encouraging the automotive industry to become more productive, increasingly internationally competitive and a provider of stable employment. This was necessary as the future viability of the industry under Phase VI was in doubt. Furthermore, the burden placed on consumers by the industry had to be reduced.

The MITG's recommendations entailed that the extent to which manufacturing participants would be able to import automotive components duty free would be determined by each plant's achievement of minimum production volumes per model and its ability to export. The results of the new development programme to be achieved were also not so much dependent on the mechanics of the programme but on the attitude of people in industry in respect of cooperation and commitment. The programme initially focused on passenger cars and light commercial vehicles, while a programme for medium and heavy commercial vehicles was to be submitted later. The commencement of both programmes was initially set for 1 January 1995 and was intended to be tariff based. The South African offer submitted to the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) allowed for a ceiling rate of 50% ad valorem for motor vehicles and 30% ad valorem for completely knocked down (CKD) components. A period of eight years was negotiated to comply with the requirements (MITG, 1994:17).

The MITG decided to use the basic structure of the Australian Automotive Industry Plan or "Button Plan" in its new development programme. The proposal was a tariff-based programme that would be progressively lowered in order to allow imported competition increasingly into the domestic market and exert downward pressure on vehicle prices. It would include a duty-free allowance to import a portion of the components duty free as well as an export facilitation scheme to earn export credits against the importation of CBUs and components. The export facilitation scheme was aimed at providing an incentive for the export of competitively priced vehicles and automotive components (IDC, 1993:1, 2).

The overarching objective of the revised customs dispensation for the light motor vehicle industry was to improve the industry's competitiveness to such an extent that it would not only survive in the long term but increase manufacturing activities with much

lower protection levels. The long-term strategic objective for the medium and heavy commercial vehicle sector customs dispensation was to reduce the cost of these vehicles as capital inputs to the economy, with a commensurate reduction in the cost of the inputs used to manufacture these vehicles (ITAC, 1995:1, 2).

As the long-term objectives for this customs dispensation could not be achieved in the short term, ITAC's recommendations to achieve these objectives sought to allow the domestic industry time to adjust to increased international competition. The recommendations entailed that the excise dispensation be abolished and that customs duties on CBUs were to be reduced over an eight-year period for light motor vehicles and a five-year period for medium and heavy motor vehicles. Government saw the automotive industry as a key growth area for the future and the policy pursued could be termed "guided integration". The phased reduction of tariffs, combined with the encouragement of exports, aimed at achieving a greater level of specialisation. Hence, economies of scale and encouraging improved productivity were aimed at improving the competitiveness of the domestic motor vehicle industry (ibid, 1995:9–14).

4.4.2 AIM OF THE MIDP

In essence, the main aim of the MIDP is to encourage the domestic OEMs to specialise in one or two high volume models, obtain economies-of-scale benefits to export competitively and in turn import those models not assembled in the domestic market at low to duty-free levels. This approach would also assist the automotive component suppliers to achieve higher volumes in the domestic market in order for manufacturing to become economically viable.

4.4.3 MIDP OBJECTIVES

Overall, in the case of South Africa's more liberated trading environment, it was important for the automotive policy regime to

- continue providing a sufficient level of protection to the domestic automotive industry
- assist the industry in becoming more internationally competitive
- prepare the industry to restructure in becoming fully integrated into the global automotive environment.

The MIDP involves a gradual reduction in assistance up to the year 2012. Government's role is to

- set a clear policy agenda
- maintain good communication with the automotive industry
- provide efficient administration of the MIDP
- monitor developments closely
- provide support for initiatives in respect of technology, productivity upgrading and new investments, which could increase employment and/or the competitiveness of the industry.

The MIDP, introduced on 1 September 1995, was aimed at the development of an internationally more competitive and growing automotive industry, which would be able to (DTI, 1997a:2)

- provide high quality and affordable vehicles and components for the domestic and international markets
- provide sustainable employment through increased production
- make a greater contribution to the economic growth of the country by increasing production and achieving an improved sectoral trade balance.

These national objectives were to be achieved by

- encouraging a phased integration into the global automotive industry
- increasing the volume and scale of production by the expansion of exports and gradual rationalisation of models produced domestically
- encouraging the modernisation and upgrading of the automotive industry in order to promote higher productivity and facilitate the global integration process.

The major policy instruments to achieve these objectives are the following:

- A gradual and continuous reduction in tariff protection so as to expose the industry to greater international competition.
- The encouragement of higher volumes and a greater degree of specialisation by allowing exporting firms to earn rebates on automotive import duties.

- The introduction of a range of incentives designed to upgrade the capacity of the industry in all spheres.

4.4.4 OPERATIONS OF THE MIDP

Participation in the MIDP is contingent on fulfilling a number of requirements. OEMs, automotive component manufacturers exporting themselves and exporters exporting on behalf of automotive component manufactures in association with the manufacturer have to register with the DTI annually. The custodian of the MIDP is the DTI. The Enterprise and Industry Development Division (EIDD) of the DTI is responsible for the automotive policy formulation while the International Trade Administration Commission (ITAC) division is responsible for the programme's administration. The MIDP is contained in the Customs and Excise Act, 1964 as a rebate item in the third schedule to the Customs and Excise Act under rebate item 317.04 (ITAC, 1995:23; ITAC, 2003b:1–60; ITAC, 2003c:1–17).

Participants in the MIDP have to comply with the provisions of the Customs and Excise Act, which is administered by the South African Revenue Service (SARS). As part of the previous local content programmes, the manufacture of a vehicle domestically gave rise to an excise duty liability. This excise duty liability was then reduced by increasing the local content and/or by exporting. Under the MIDP, which is a customs duty driven system, the duty liability of the OEM arises on the importation of CBUs and automotive components. The OEM will have a duty liability on the automotive components it imports and on the imported content of automotive components sourced domestically. In 2009, the duty liability is 28% ad valorem on CBUs and 23% ad valorem on original equipment components, which will be reduced to 25% ad valorem and 20% ad valorem by 2012 respectively (ITAC, 1995:23; ITAC, 2003b:1–60; ITAC, 2003c:1–17).

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The duty liability is reduced in various ways. To promote the domestic manufacture of vehicles the OEM receives a first-cut rebate called a duty-free allowance (DFA), which is effectively calculated at 27% of the wholesale selling price of cars manufactured and sold in the domestic market. Assembly from CKD components is regarded as a prerequisite for access to a DFA. The first-cut rebate, however, is not enough to ensure that the OEM does not pay duty. An additional duty-free allowance in the Small

Vehicle Incentive (SVI) was granted in respect of motor vehicles below a net ex-factory selling price of R40 000 to encourage the manufacture of more affordable light motor vehicles. The incentive was calculated to be 3% for every R1 000 below a vehicle price qualifying value of R40 000 (ITAC, 1995:23; ITAC, 2003b:1–60; ITAC, 2003c:1–17).

Exporters of motor vehicles, automotive components and automotive tooling earn credits based on their export performance. This export performance is calculated as the net of the export-selling price, normally the free on board (FOB) value less all imported content in the product exported. According to Black (2007:95, 96) local content is defined as the wholesale price (value of production) less foreign content. Local content thus includes South African materials and components, value addition, labour costs, assembly costs and profits.

The monetary value of the local content of automotive components and light and heavy motor vehicles that have been exported may be used to import an equivalent monetary value of automotive components and CBUs. An exporter will submit an Import Rebate Credit Certificate (IRCC) claim to the DTI once it has received proof of the repatriation of funds from its overseas client and after this has been audited by a qualified auditor. The IRCCs are then used by the OEMs to offset their duty liability on CBUs or original equipment automotive components. Materials such as fabrics, carpets in rolls and steel sheets, goods in bulk, tooling and parts for the aftermarket would be subject to the applicable customs duties levied on importation and will not be offset against the IRCC. Imports against the IRCC should take place within one year. Eligible exports of automotive components qualify for an IRCC if the components have been wholly or partly manufactured in the common customs area. However, no less than 25% of the production cost, excluding packaging, should be represented by the cost of labour, raw materials, subcomponents and direct factory overhead expenses to manufacture such a product. The final process of manufacture of such a component should be carried out in the common customs area. To promote more exports, the value of the IRCCs was reduced with effect from 1 January 2003 to 94% of their value. The percentage will be reduced to 70% by 2009 (Newman, 2003:60).

The main instruments of the MIDP therefore relate to declining nominal import duties combined with export assistance, the latter derived from the ability to offset import duties. The various instruments of the MIDP are interdependent. If credits can be generated too easily then import protection is effectively removed; if it is too difficult to earn these credits then the industry becomes more protected. The latter outcome would lead to rising vehicle prices and also higher vehicle production costs. The volume of credits being generated is therefore a key policy issue as it affects the balance of the programme (Black, 2007:86).

For medium and heavy commercial vehicles, the same duty structure for original equipment components for light vehicles applies. However, the duties are rebated in respect of driveline components including the engine, transmission, gearbox and axle. All the other components are free of duty, with the exception of tyres, which are fixed at a rebate of 15% ad valorem below the applicable CKD duty rate for the specific year. The duty on the completely built-up medium and heavy commercial vehicle and bus has been fixed at 20% ad valorem and the same conditions in respect of the IRCCs apply to the medium and heavy commercial vehicle industry exporters (ITAC, 1995:24–29; ITAC, 2003b:1–9).

The technical parameters of the MIDP will be summarised after the MIDP reviews, which will be discussed next.

4.4.5 MIDP Reviews

In 1999 and in 2002, the purpose of the MIDP reviews and the changes resulting from those reviews were aimed at corrective action to encourage the industry in achieving sustainable future growth. Global trends reveal that most developed countries are looking at lower cost countries in which to manufacture vehicles. Large automotive component manufacturers are normally required to follow the OEMs to supply systems in a just-in-time (JIT) fashion to the assembly plants. South Africa has to follow these emerging global patterns.

4.4.5.1 1999 MIDP Review

Since a stable and predictable government policy and tariff regime that would facilitate long-term planning towards sustainable economic development was required, the MIDP was further refined and extended from 2003 to 2007 as part of the 1999 Review. In line with the extension, and to stimulate healthier competition, tariffs on CBUs were reduced from 2003 onwards by 2% per annum to 30% ad valorem in 2007. In addition, the Small Vehicle Incentive (SVI) was phased out by 2003 as price trends revealed that the instrument had lost its purpose.

The import rebate credit facility, which encourages OEMs to find markets beyond the country's borders, has had a profound impact on the transformation and repositioning of the domestic vehicle manufacturing industry. As the OEMs achieve long-term sustainable critical mass, the support afforded the OEMs was reduced from 2003 onwards from a 1:1 ratio to a 1:0,7 ratio by 2007. Rationalisation by the OEMs will ensure the same effect for the automotive component manufacturers (ITAC, 2000b:1–3).

In order to achieve healthy competition, the tariffs on CKD components were reduced from 2003 onwards by 1% per annum to 25% in 2007. The import rebate credit facility ratio was also reduced for the automotive component exporters, while the ratio of automotive components to CBU light motor vehicle imports was adjusted from 1:0,75 to 1:0,6 to encourage higher levels of economic activity in automotive component manufacture. The component manufacturers will have to adopt a strategy of partnering with new leading-edge technology providers and increased investment in state-of-the-art plant and machinery to be able to compete for higher volume contracts in a sustainable fashion. Catalytic converters demonstrated a propensity to penetrate global markets in sizeable quantities and have achieved a global price-leading status through globally competitive volumes and supply chain management. It was foreseen that the growth in the export of catalytic converters would continue, which together with the price of the platinum group metals (PGMs) could distort the development of the domestic vehicle manufacture and automotive component-manufacturing base. It was therefore necessary to adjust the level of support afforded to the PGM content in a phased reduction to 40% by 2003 (ibid, 2000b:1–3).

A major global trend is to use common platform engineering to save costs through parts commonisation in order to achieve greater scale economies. Investments elsewhere in the developed economies are often based on single platform manufacturing with reduced numbers of automotive component manufacturers. Since the South African automotive industry is following these trends, large-scale assembly plant modernisation is required to achieve this. In order to encourage further investments of this nature a new support package under the MIDP was introduced in 2000 in the form of a productive asset allowance (PAA). The PAA is a non-tradable duty credit calculated at 20% of the qualifying investment in productive assets, which will be spread equally over five years. OEMs will be able to use the duty credit against CBU imports only, which will sustain the range of products being offered to the consumer. Marginal low volume products could therefore be eliminated and productive capacity rather focused on higher volume products for global consumption (ITAC, 2000b:27–29; ITAC, 2003d:1–25).

Automotive component manufacturers, which are being encouraged by OEMs to invest in new plant and tooling to support their own expectations, will be awarded the same PAA as above with the proviso that 80% of the duty saved be passed on to the automotive component manufacturer. The 20% remaining duty saved by OEMs on such investments will serve as encouragement for strategic automotive component investments being attracted to supply domestic manufacturing plants. The nature of the productive assets to be included will normally consist of the latest technology production equipment. This includes new or unused robotised body shops, paint plants using environmentally acceptable materials required by destination countries, assembly lines, logistical material handling systems fully integrated and compatible with external suppliers' plant, as well as machinery and tooling required to localise suitable components in support of the business plan. Dedicated buildings required for these production processes are also included under the PAA (ITAC, 2000b:27–29; ITAC, 2003d:1–25).

Medium and heavy commercial vehicles, regarded as capital assets, are major cost drivers for the economy and protection generally should only be afforded to manufacturing activities in the economy. The duty of 20% ad valorem, however, will remain on these vehicles. However, all original equipment drive train components are

to be brought in duty free owing to the termination of diesel engine manufacture and insignificant manufacture of gearboxes and drive axles. All tyre manufacturers are making major capital investments in the manufacture of steel radial tyres for medium and heavy vehicles. These investments will provide a long-term sustainable foundation for growth. Hence, the duties on tyres are fixed at a rebate of 15% ad valorem below the applicable CKD duty rate (ITAC, 2000a:1, 2; ITAC, 2003c:1–17).

4.4.5.2 2002 MIDP Review

The 2002 Review was intended to provide an extended period of automotive policy certainty. In December 2002, the former Minister of Trade and Industry, Alec Erwin, announced that the MIDP would be extended until the end of 2012 and that a formal review of the MIDP was planned for 2006 to assess developments up to that time to give effect to the extension of the programme (DTI, 2002b:1, 2). The proposed framework from 2008 to 2012 entailed that assistance to the automotive industry would continue to decline. The MIDP would strive to strike a balance between further opening the domestic market to international competition and maintaining a certain measure of protection.

The 2002 Review recommended that the percentage of the eligible export value that is used as a basis for the calculation of the value of IRCCs be phased down by 4% per annum from 2004 onwards to reach 70% by 2009, and not by 2007 as initially legislated. The rates of duty on light motor vehicles and original equipment components would also be phased down to 28% and 23% ad valorem respectively, in 2009 (ITAC, 2003a:1–9). The technical parameters of the MIDP from 1995 until 2012 will now be summarised and discussed.

4.4.6 TECHNICAL PARAMETERS OF THE MIDP

Table 4.2 reveals the technical parameters of the MIDP in respect of the tariff phase down of the duty structures, the eligible qualifying values derived from exports under the MIDP, as well as investment benefits in terms of the productive asset allowance.

Table 4.2: Technical parameters of the MIDP (1995–2012)

				Value of export performance			Ratio of exports vs imports			
Year	CBU duty %	CKD duty %	DFA %	CBUs %	Components %	Qualifying PGM value %	HCV & tooling & components vs CBU LV	Vehicle & tooling & components vs HCV & tooling & components	CBU LV vs CBU LV, HCV & Tooling & components	PAA %
1995	65	49	27	100	100	100	100:75	100:100		-
1996	61	46	27	100	100	100	100:75	100:100		-
1997	57,5	43	27	100	100	100	100:75	100:100		-
1998	54	40	27	100	100	100	100:75	100:100		-
1999	50,5	37,5	27	100	100	90	100:75	100:100		-
2000	47	35	27	100	100	80	100:70	100:100		20
2001	43,5	32,5	27	100	100	60	100:70	100:100		20
2002	40	30	27	100	100	50	100:65	100:100		20
2003	38	29	27	94	94	40	100:60	100:100		20
2004	36	28	27	90	90	40	100:60	100:100		20
2005	34	27	27	86	86	40	100:60	100:100		20
2006	32	26	27	82	82	40	100:60	100:100		20
2007	30	25	27	78	78	40	100:60	100:100		20
2008	29	24	27	74	74	40	100:60	100:100		20
2009	28	23	27	70	70	40	100:60	100:100		20
2010	27	22	27	70	70	40	100:60	100:100		To be reviewed
2011	26	21	27	70	70	40	100:60	100:100		
2012	25	20	27	70	70	40	100:60	100:100		

*****LVs – passenger cars and light commercial vehicles, MCV/HCVs – medium and heavy commercial vehicles, CKD – completely knocked-down kits also defined as original equipment components

Source: International Trade Administration Commission Report No 3625, 1995; Department of Trade and Industry Motor Industry Development Report, 2003a

It is clear from Table 4.2 that the MIDP involves a gradual reduction in support of the South African automotive industry in order to facilitate its integration into the global automotive environment. In addition to the customs duty on passenger cars, an excise or fiscal duty, calculated on a sliding scale to a maximum of 20% according to the ex-factory selling price of the vehicle, is leviable on imported and domestically manufactured light vehicles. At R50 000 the duty is 0,5%, at R100 000 the duty is

1,7% and at R864 500 maximum duty of 20% is leviable. The value for fiscal duty purposes may be reduced under the IRCC system, as the fiscal duty is leviable, after the import duty has been partly or fully rebated via the IRCC system.

Table 4.3 summarises the Import Rebate Credit Certificate (IRCC) benefit or value derived from the export of CBUs or automotive components to the exporter in the importation of CKD kits.

Table 4.3: IRCCs on CKD kits imports (1995–2012)

Year	Export value	Value portion	CKD duty %	Import rebate for OEMs	Independent exporters' OEM portion*	Value to independent exporters*
1995	100	1,00	49	49,0	9,8	39,2
1996	100	1,00	46	46,0	9,2	36,8
1997	100	1,00	43	43,0	8,6	34,4
1998	100	1,00	40	40,0	8,0	32,0
1999	100	1,00	37,5	37,5	7,5	30,0
2000	100	1,00	35	35,0	7,0	28,0
2001	100	1,00	32,5	32,5	6,5	26,0
2002	100	1,00	30	30,0	6,0	24,0
2003	100	0,94	29	27,26	5,452	21,808
2004	100	0,90	28	25,2	5,04	20,16
2005	100	0,86	27	23,22	4,644	18,576
2006	100	0,82	26	21,32	4,264	17,056
2007	100	0,78	25	19,5	3,9	15,6
2008	100	0,74	24	17,76	3,552	14,208
2009	100	0,70	23	16,1	3,22	12,88
2010	100	0,70	22	15,4	3,08	12,32
2011	100	0,70	21	14,7	2,94	11,76
2012	100	0,70	20	14	2,8	11,2

*Assuming that independent exporters are able to negotiate an 80:20 ratio on the value of their IRCCs when trading with the OEMs

Source: Department of Trade and Industry Motor Industry Development Report, 2003a

Table 4.3 reveals that the benefit accrued under the MIDP amounted to 39,2% in 1995 and will be reduced to 11,2% by 2012. This means that the industry is forced to

improve its competitiveness, productivity and efficiency annually in line with the reduced benefits. In addition, to secure a similar scale of benefits enjoyed under the MIDP in 2002, before the phasing down of the qualifying benefits under the MIDP started, exports and/or local content will have to increase by some margins until 2012.

Table 4.4 summarises the IRCC benefit or value derived from the export of CBUs or automotive components by the exporter in the importation of CBUs.

Table 4.4: IRCCs on CBU imports (1995–2012)

Year	Export value	Value portion	CBU adjust-ment	CBU Duty %	Import rebate for OEMs/ Importers	Independent exporters' OEM/Importer portion*	Value to independent exporters*
1995	100	1,00	0,75	65	48,750	9,750	39,0
1996	100	1,00	0,75	61	45,750	9,150	36,6
1997	100	1,00	0,75	57	43,125	8,625	34,5
1998	100	1,00	0,75	54	40,500	8,100	32,4
1999	100	1,00	0,75	50,5	37,875	7,575	30,3
2000	100	1,00	0,70	47	32,900	6,580	26,32
2001	100	1,00	0,70	43,5	30,450	6,090	24,36
2002	100	1,00	0,65	40	26,000	5,200	20,8
2003	100	0,94	0,60	38	21,432	4,2864	17,1456
2004	100	0,90	0,60	36	19,440	3,888	15,552
2005	100	0,86	0,60	34	17,544	3,5088	14,0352
2006	100	0,82	0,60	32	15,744	3,1488	12,5952
2007	100	0,78	0,60	30	14,040	2,808	11,232
2008	100	0,74	0,60	29	12,876	2,5752	10,3008
2009	100	0,70	0,60	28	11,760	2,352	9,408
2010	100	0,70	0,60	27	11,340	2,268	9,072
2011	100	0,70	0,60	26	10,920	2,184	8,736
2012	100	0,70	0,60	25	10,500	2,100	8,4

*Assuming that independent exporters are able to negotiate an 80:20 ratio on the value of their IRCCs when trading with the OEMs or independent importers. This benefit excludes the savings which the importer achieves on the excise or fiscal duty, which would provide a further benefit of between 0,5% and 20% of the CBU duty applicable each year.

Source: Department of Trade and Industry Motor Industry Development Report, 2003a

Table 4.4 reveals that the benefit accrued under the MIDP amounted to 39% in 1995 and will be reduced to 8,4% by 2012. This means that industry is forced to improve its competitiveness, productivity and efficiency annually in line with the reduced benefits. In addition, to secure a similar scale of benefits enjoyed under the MIDP in 2002, before the phasing down of the qualifying benefits under the MIDP started, exports and/or local content will have to increase by some margins until 2012.

The aim of the 2005 MIDP Review was to provide automotive policy certainty between 2009 to 2012 as well as post 2012. On 18 December 2007 the DTI issued a media release on the MIDP Review and the way forward. The DTI indicated that the objective of the media statement was to provide policy clarity over the short to medium term and also to signal the longer-term direction of automotive strategy. More detail was to be provided by August 2008 on completion of the current review process. The media release further stated that the specific parameters of the future MIDP were being developed by an Inter-Departmental Task Team, comprising senior officials in the DTI as well as National Treasury officials, with support from independent experts. Recommendations from this work would be decided on at the political level within government.

In 2007, government set out its National Industry Policy Framework (NIPF), a broad approach to industrialisation in the context of its Accelerated and Shared Growth Initiative for South Africa (AsgiSA). The AsgiSA targets encompass halving unemployment and poverty by 2014 through accelerated economic growth of at least 6% from 2010. The 2007 Industrial Policy Action Plan (IPAP) sets out in detail key actions and timeframes for the implementation of the NIPF. The automotive sector has been identified as one of four sectors for fast-tracking implementation and growth in order to achieve the AsgiSA objectives. One of the key action programmes for the automotive sector was the finalisation of the 2005 MIDP Review and the development of a scheme to replace the MIDP to ensure the industry's long-term sustainability (DTI, 2007b:2–9).

On 4 September 2008 the DTI issued the following media release on the MIDP Review and the way forward.

In 2005 the DTI initiated a review of the MIDP in order to assess its impact and recommend options to deal with identified gaps, whilst also ensuring that support to industry is consistent with South Africa's multilateral obligations, as well as domestic priorities.

A process of extensive research and consultation resulted in a report being submitted to the DTI by end 2006. After intense evaluation of the report and recommendations therein, it was felt necessary to extend the analysis of industry dynamics and alternative support options going forward. *It should be noted that part of the recommendations was for the introduction of a Production allowance to replace the current export incentive in line with the country's multilateral obligations, however the design and development of such an allowance was not done.*

Process: A task team involving the DTI and National Treasury with the assistance of independent experts has from the end of 2007 worked on designing a new architecture for industry support in line with the new targets being set for the industry. Substantial research, followed by intensive and comprehensive industry consultations took place. The United Nations Industrial Development Organisation (UNIDO) and the Industrial Development Corporation (IDC) provided valuable information and assistance in respect of global industrial policy trends and economic modelling respectively. The final proposals were arrived at after several interactions with industry stakeholders at various levels, culminating in a consideration by executive cabinet.

Findings: The automotive industry is the largest and leading manufacturing sector in the domestic economy. Since the introduction of the MIDP the industry has rationalised and restructured in a more efficient basis achieving significant growth in production volumes, exports and investments whilst maintaining significant employment levels.

The industry generates strong linkages with other

- Input industries such as aluminium, chemicals, electronics, leather and textiles, plastics, steel, machinery and equipment,
- Service industries such as engineering, logistics, tooling,
- Others such as financial, wholesale and retail, and advertising.

Automotives continue to be a highly competitive global industry where almost all countries hosting an automotive industry provide substantial support. The industry is also facing one of the worst times globally as automotive growth slows down and consumer demand is shifting to more fuel efficient vehicles in response to the oil price and environmental concerns. There is now increased competition from low cost and market booming regions such as Eastern Europe and Asia with a continuing overcapacity problem that puts added pressure to our industry that still produces and sells hardly 1 percent of the vehicles in the global automotive market.

Notwithstanding the successes achieved since 1995, the industry faces a number of challenges. Economies of scale in assembly and the depth of domestic component manufacturing are not yet internationally optimal. Relatively few automotive components dominate the export basket whilst the local content of the exported vehicles has somewhat stagnated. Also most of the growth in domestic sales has been serviced by imports resulting in a growing trade deficit, however the current domestic downturn and growth in exports is likely to reverse this situation in 2008.

Strategic Direction: Government is now looking at further expanding as well as deepening the industry. In this regard more efforts should seek to improve the productivity levels of component manufacturers to provide an opportunity of increasing the local content of domestically assembled vehicles.

The revised MIDP would therefore seek to provide industry with a reasonable level of support in a market neutral manner (that is, it cannot be an export incentive anymore as this might be inconsistent with WTO, therefore there will be no discrimination for products sold domestically and those exported).

Strategic Direction: Government is thus now looking at further development of the automotive industry in line with the National Industrial Policy Framework (NIPF) and the 2007 Industrial Policy Action Plan (IPAP). Long-term development of the sector will be achieved by doubling production to 1,2 million vehicles by 2020 with associated deepening of the local component industry.

Revised MIDP: ***"Automotive Production/Manufacturing Programme"*** The revised programme will have the following four key elements;

- **Tariffs:** Stable, moderate tariffs will remain at 25% for light motor vehicles and 20% for components from 2012. These tariffs are meant to provide just enough protection to justify continued local vehicle assembly.
- **Local Assembly Allowance:** This support will be in the form of duty credits issued to vehicle assemblers based on 20–18% of the value of light motor vehicles produced domestically from 2013. This support is effectively providing a lower duty rate for local assemblers and should provide enough encouragement for high volume vehicle production in line with the target of doubling production.
- **Production Incentive:** From 2013 this support of 55-50% of value added computed in simple terms as sales less raw materials, in the form of a duty rebate credit, will replace the current export based scheme. Thus the actual benefit will be 55% X value add X applicable duty rate in 2013. The value-add support will encourage increasing levels of local value addition along the automotive value chain with positive spin-offs for employment creation.
- **Automotive Investment Allowance:** From 2009, this assistance will replace the current Productive Asset Allowance and will be 20% of qualifying investment paid over to participants over a three year period. This support will be available to encourage investments by vehicle assemblers and component manufacturers in a manner that supports equipment upgrading.

Other Work Areas: Further work is to continue in the following areas;

- Sub-sector investigation aimed at evaluating growth opportunities and appropriate support mechanisms in the catalytic converter and other material-intensive industry as well as medium and heavy commercial vehicles. Further announcements can be expected in due course after more detailed consultations, however, within the current financial year.
- Programmes aimed at addressing broad-based empowerment imperatives as well as firm level competitiveness challenges will be enhanced in partnership with relevant stakeholders.

- In partnership with key stakeholders such as the Department of Environmental Affairs and Tourism (DEAT), and the Department of Minerals and Energy (DME) and industry, work aimed at responding to climate change imperatives including tighter emission standards will be given more attention.
- A strong monitoring and review system will be set to allow better information flows for decision making as well as more frequent reviews.

Deliverables from the Private sector: Whilst Government would provide support aimed at further stimulating growth in the industry, the private sector is also expected to show progress in the areas of transformation, increasing local content and contribution to skills acquisition and or training. Industry will also be expected to achieve high volumes of production so as to benefit from such improved economies of scale.

Improved Monitoring and Evaluation: In this current process of designing a new support mechanism it becomes important to build in measures of success to the extent that it then becomes easier to determine the success of the support programme into the future.

Implementation Plan: As government set up the necessary regulatory amendments and administration system for the programme, government will ensure that it is in line with the need for a strong monitoring and evaluation system but still not unduly burdensome to stakeholders.

Amendment	**Date**
1. Regulatory amendments	June 2009
2. Automotive Investment Assistance (AIA)	June 2009
3. Value Add Support / Production Incentive	January 2013
4. Local Assembly Allowance (LAA)	January 2013
5. Tariff Phase-down freeze	January 2013

According to the director general of the DTI, Thediso Matona (as cited by Ruthun, 2008b:66) the new Automotive Production Development Programme (APDP) would seek to shift the emphasis away from a narrow export focus to one that emphasises scale in the production of vehicles. In addition the programme is intended being supportive of the development of world-class automotive component manufacturing. In this regard a panel of Harvard economists acknowledged that the South African automotive industry has the potential to become internationally competitive provided that the domestic supplier base was modernised and developed.

4.5 SUMMARY OF CHAPTER 4

The origins of South Africa's inward-focused automotive industry developmental path can be traced back to the introduction of tariffs during the early part of the 20th century. In the pre-MIDP period, the South African government followed global trends and implemented a vast, complex set of tariffs and quantitative restrictions to encourage the development of a domestic automotive industry in recognition of the direct and indirect benefits of an automotive sector to the economy.

In 1994, the small domestic market and the large number of OEMs operating in South Africa prompted a re-examination of the automotive sector in line with the country's trade and economic liberalisation to ensure its future viability. The MIDP was implemented in 1995 to assist the domestic automotive industry's gradual integration into the global automotive environment. In essence, the MIDP's aim was to provide incentives to rationalise vehicle, and consequently, automotive component production. Rationalisation entails a smaller range of products in achieving economies of scale benefits, mainly via exporting. The MIDP progressively exposed the domestic automotive industry to the pressures of international competition and the need for efficiency improvements. This Programme was intended to end in 2002, but was extended twice during the 1999 and 2002 reviews. The 2005 MIDP Review aimed to provide longer-term policy certainty up to and beyond 2012 in order to foster the momentum and the sustainable future growth of the automotive sector in South Africa.

CHAPTER 5: THE PERFORMANCE OF THE SOUTH AFRICAN AUTOMOTIVE INDUSTRY UNDER THE MIDP

5.1 INTRODUCTION

Major structural changes have taken place in the South African automotive industry since the introduction of the MIDP in 1995. All the South African-based OEMs have become wholly foreign-owned companies; the domestic production of vehicle models has been significantly rationalised to achieve higher volumes and increasing economies-of-scale benefits, and total automotive exports (CBUs and components) have increased from limited levels before 1995 to record-breaking levels for several consecutive years thereafter. Significant investments in best-practice assets and state-of-the-art technology have taken place, mainly to accommodate export contracts for CBUs and automotive components. Consequently, the complexity in the automotive component sector has also been reduced. Since 1995, the surge in exports of CBUs and a diverse range of automotive components for demanding world markets, has been indicative of the domestic industry's improved international competitiveness levels.

Chapter 4 focuses on the vision of the South African automotive industry under the MIDP, the key characteristics of the domestic automotive industry, leading performance indicators – with a specific focus on exports by the South African light motor vehicle manufacturers – as well as exogenous factors impacting on the performance of the domestic automotive industry under the MIDP.

5.2 SOUTH AFRICAN AUTOMOTIVE INDUSTRY VISION UNDER THE MIDP

In 1995, all automotive industry stakeholders formulated a common vision for the automotive industry and this is used as a platform for government, business and labour to determine the future direction of policy. The vision was to establish a viable, competitive industry, domestically and internationally, capable of achieving both continuous growth and sustainable job creation (DTI, 1999:2).

The DTI export strategy for the automotive sector (DTI, 1997b:4) explains the automotive industry vision under the MIDP as follows:

- Viable – profitable, innovative, productive, efficient, rationalised and customer focused
- Internationally competitive – working towards the highest global standards of quality, price, service delivery times and inventory levels
- Continuous growth – increased new investments from global and domestic players, skills development, increased exports and increased volumes
- Sustainable employment – levels similar to the levels at the commencement of the MIDP in 1995

The MIDP is playing a multifunctional role in the South African automotive industry and could be regarded as a trade, economic, financial and social instrument based on its contribution to the vision of the South African automotive industry. Trade relates to the improvement of international competitiveness of the domestic automotive industry; economic relates to the enhancement of exports in respect of the country's trade balance; financial relates to the attraction of investments; and social relates to the maintenance and creation of employment as well as Broad Based Black Economic Empowerment (BBBEE) related issues.

5.3 KEY PLAYERS IN THE DOMESTIC AUTOMOTIVE INDUSTRY

In 2008, the South African automotive industry comprised eight light vehicle manufacturers (passenger cars and light commercial vehicles) producing 18 models and serviced by over 400 automotive component manufacturers (NAAMSA, 2009a:40). Three OEMs have extended their operations to include the assembly of medium and heavy commercial vehicles. No new OEMs have entered the light vehicle manufacturing sector since the implementation of the MIDP in 1995 up to 2008. In August 2007, Fiat Auto SA (Pty) Ltd discontinued vehicle production in South Africa owing to the termination of the contractual arrangement with Nissan SA (Pty) Ltd, and the final vehicles came off the production line during the first half of 2008. Since 2008, Fiat has been operating as an independent importer of CBUs in the country.

The key role-players in the South African automotive industry are all part of the Motor Industry Development Council (MIDC). The MIDC was established in 1996 as a joint industry-government-labour body and is the major influence on strategies and policies for the automotive sector. The MIDC provides an effective platform for communication

and cooperation and for all the relevant stakeholders to interact on automotive issues. Stakeholders include government, labour and business (DTI 2004:99).

Government is represented by

- the Enterprise and Industry Development Division (EIDD)
- the International Trade Administration Commission (ITAC) (formerly the Board on Tariffs and Trade – BTT)
- the South African Revenue Services (SARS – Customs and Excise Department)
- the South African Bureau of Standards (SABS)

Labour is represented by

- the National Union of Metalworkers of South Africa (NUMSA)

Business is represented by

- the National Association of Automobile Manufacturers of South Africa (NAAMSA)
- the National Association of Automotive Component and Allied Manufacturers (NAACAM)
- the Retail Motor Industry Organisation (RMI)
- the South African Tyre Manufacturers Conference (SATMC)
- the Catalytic Converter Interest Group (CCIG)

Several subcommittees have been formed to provide expert advice on relevant matters. The MIDC has been actively involved in issues such as monitoring MIDP developments via the Monitoring Committee of the MIDC. In addition, four MIDC Task Teams were established in 2003 to investigate and resolve concerns in the areas of vehicle affordability, raw materials, automotive employment as well as free and preferential trade-related agreements. More recently, in 2009, a BEE Task Team was established to focus on an empowerment plan for the automotive sector.

5.4 KEY CHARACTERISTICS OF THE DOMESTIC AUTOMOTIVE INDUSTRY

The Republic of South Africa has a population of 47,9 million people. In 2008, the country's gross domestic product (GDP) was R2 283 billion with a GDP per capita of R42 704 (South Africa at a glance, 2008/09:5). South Africa represents the biggest domestic market for vehicles in Africa and, according to the International Vehicle Manufacturers Association (OICA, 2009), accounted for 79,8% of the continent's production in 2008. South Africa has the ability to continue being a global export source of vehicles and automotive components, and this ability is enhanced by general economic growth and political stability. Furthermore, South Africa's comparative advantages include having among the best infrastructure, industrial resources and access to raw materials and labour of any developing nation. Its seven commercial ports have expanding facilities to handle automotive exports and imports, enabling it to be the trading hub both in and out of sub-Saharan Africa. In addition, it allows the meeting of logistical requirements to service Europe, Asia and the USA. New automotive technologies, which include fuel cells, lighter-weight vehicles and the need for catalysts to reduce exhaust pollution, will increase demand for the country's platinum-group metals. The country is also the world's leading producer of manganese and chrome ores, titanium minerals, alumino-silicates, vanadium and platinum, and is among the top producers of coal and another 50 minerals (Creamer, 2006a:6; Naidoo, 2006c:34, 36; AIEC, 2007:9, 10; South Africa at a glance, 2008/09:8).

The vehicle manufacturing industry is concentrated in three of South Africa's nine provinces in close proximity to its suppliers. Gauteng is home to BMW SA, Nissan SA and Ford Motor Company of Southern Africa incorporating the assembly of Mazda. KwaZulu-Natal is home to Toyota SA Motors and the Eastern Cape is home to Volkswagen of SA, Mercedes-Benz SA and General Motors SA. The broader South African automotive industry, incorporating the manufacture, distribution, servicing and maintenance of motor vehicles, plays a vital role in South Africa's economy and contributed 7,29% of the country's GDP of R2 283 billion in 2008 (NAAMSA, 2009a:49). The vehicle and component manufacturing industry represents the largest manufacturing sector and the most expanding sector in the South African economy. South Africa's vehicle production reached a record of 587 719 units in 2006 representing 0,86% of global vehicle production. Owing to depressed domestic economic conditions in 2007 and 2008 and despite record vehicle exports in 2008,

vehicle production declined to 533 387 units in 2008. In 2008, South Africa occupied the 24th position in the international vehicle production ranking with a global vehicle production market share of 0,80% (NAAMSA, 2009a:10, 11, 39; OICA, 2009).

The South African automotive industry, in common with elsewhere in the world, is strongly influenced by the domestically based OEMs, in line with their OEM parent companies' strategies. The domestic industry's structure and evolutionary path are therefore closely aligned with the OEM strategies in both domestic and global markets. The increasing orientation of the South African-based OEMs towards exports has thus fundamentally changed the structure of their own operations as well as those of the automotive component industry. Key decisions about South Africa's automotive business are determined in Europe, the USA and Japan. South Africa's participation in the World Trade Organization (WTO), its competitive advantages and its special relationships with the EU and other trading regions has facilitated the industry's integration into the global sourcing strategies of the multinational automotive corporations. The domestic automotive industry's competitive advantages relate to its flexibility and short production run capabilities (AIEC, 2007:8).

In terms of the trade which supports this industry, there are approximately 4 469 garages and fuel stations (with the majority having service workshops as well) plus a further 1 969 specialist repairers; 1 422 new car dealerships holding specific franchises; an estimated 1 608 used vehicle outlets; about 303 vehicle component manufacturers, together with about 150 others supplying the industry on a non-exclusive basis; 1 598 specialist tyre dealers and retreaders; 495 engine reconditioners; 186 vehicle body builders; 2 918 parts dealers and around 214 farm vehicle and equipment suppliers. South Africa's motor vehicle population of 8,3 million vehicles, of which nearly 5,3 million are passenger cars (63%), is mainly concentrated in Gauteng comprising 38,4% of the vehicle population followed by the Western Cape with 16,7%, Kwazulu-Natal with 13,8% and the other provinces with less than 10% each. Total South African automotive industry revenue, excluding exports but including new and used vehicle sales, workshop revenue and spares and accessories, amounted to R244,7 billion in 2007 compared to the R234,6 billion in 2006, an increase of 4,3%, of which the annual value of sales of new motor cars and new commercial vehicles amounted to R119,5 billion (2006: R118,4 billion). In 2007,

capital invested by OEMs at replacement value was in the order of R26 billion, by the component sector in the order of R12 billion and by the motor trade in the order of R10,5 billion (NAAMSA, 2007:50; NAAMSA, 2009a:39, 40, 50).

Primarily owing to the booming economy, government's MIDP and the general improvement in the standard of living for many South Africans, records in new vehicle sales, with year-on-year increases of 25,9, 28,2 and 15,7%, were achieved for three consecutive years from 2004 to 2006. South Africa was also the best performing new vehicle sales market internationally in 2005. In economic terms, the automotive industry's gearing effect in creating work and business opportunities can be traced to many kinds of basic manufacturing activities. These include steel production, paint and rubber, textiles, plastics, petro-chemical industries and component fabrication. In addition, because the automotive industry provides employment by proxy in many other areas (civil servants in licensing departments; Customs and Excise personnel; tax officials; staff in local authorities which provide supportive services to the industry), the influence that the automotive industry has on South Africans is considerable (NAAMSA, 2007:40).

Going forward, the South African automotive industry will have to continue focusing on further improvements in its international competitiveness in respect of production costs, without compromising high quality levels. The industry also needs to face the challenges of continuously having to adapt to the ever-changing complexities, realities and demands of global competition. Some of the key issues the South African automotive industry needs to focus on include productivity improvements, competitive improvements in logistics, the further development of the automotive component supplier base, infrastructural improvements and the critically important need for programmes to enhance technical/autotronics and commercial skills development in the industry (Davenport, 2006:46, 76; AIEC, 2008:78).

The performance indicators of the South African automotive industry under the MIDP will now be discussed.

5.5 PERFORMANCE INDICATORS OF THE SOUTH AFRICAN AUTOMOTIVE INDUSTRY UNDER THE MIDP

The MIDP's objectives focus on the growth of the automotive sector, improved international competitiveness and sustainable employment. The performance of the domestic automotive industry will now be discussed against the MIDP's objectives. The performance parameters of the domestic automotive industry will facilitate a better understanding in the context of this study, which is to analyse the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008).

5.5.1 SECTOR GROWTH

The growth of South Africa's production of motor vehicles has historically depended on the growth of the domestic motor vehicle market, and hence on the growth of the South African economy. South Africa has a two-tiered economy, one rivalling other developed countries and the other with only the most basic infrastructure. The country is described by the National Economic Development and Labour Council (Nedlac) as a productive and industrialised economy that exhibits many characteristics associated with developing countries, including a division of labour between formal and informal sectors and an uneven distribution of wealth and income. The formal sector, based on manufacturing, services, mining and agriculture, is well developed. South Africa is regarded as one of the most diversified exporters in the world and increasing trade liberalisation is very important for the country's growth and future prosperity (AIEC, 2008:9).

5.5.1.1 Domestic market and production

Table 5.1 reveals that the demand for new vehicles since 1960 escalated at an average of 2,5% annually up to 2002, although demand has grown at a slower rate than the economy's average growth rate of 3% annually. The real variance set in after 1984 when the rand's exchange rate went into freefall against the currencies of major automotive-sourced countries (Zhuwakinyu, 2003:7). Following the sales boom of 1995 and 1996, the emerging market crisis and international financial market instability in 1997 led to the imposition of very high interest rates in South Africa, which severely impacted on the domestic market for vehicles (DTI, 2000:6). In 2000 and 2001, falling interest rates and innovative financial packages gave renewed impetus to

the rise in new vehicle sales. In 2002, the adverse effects of the global economic slowdown on inflation rates, interest rates and vehicle prices, compounded by the September 11 event in 2001, constrained the rising new car sales cycle (DTI, 2002a:9).

Table 5.1: New vehicle sales in South Africa (units) (1960 to 2008)

Year	Total sales (units)
1960	119 164
1970	297 573
1980	404 766
1981*	453 541
1990	334 779
1995	399 967
1996	421 076
1997	399 275
1998	351 510
1999	325 775
2000	354 632
2001	382 529
2002	363 184
2003	382 600
2004	481 520
2005	617 406
2006	714 315
2007	676 108
2008	533 387
2010**	423 000

National Association of Automobile Manufacturers of South Africa
* Previous record
** Projected figure

Since 2004, positive macroeconomic fundamentals, positive consumer and business sentiment, new vehicle price deflation, attractive incentives, the entry of about 400 000 black buyers and the abundance of new product offerings have been the main driving forces behind the buoyant market (Kok, 2004; NAAMSA, 2007:11). With a 25,7%

increase in new vehicle sales in 2004, the previous record set in 1981 was exceeded by a substantial margin, which suggests just how sluggish the domestic market had been since the early 1980s. In 2005, the 2004 sales record was exceeded by 28,2%, which made South Africa the top performer internationally. In 2006 new vehicle sales increased by a further 15,7%, with the domestic market for new vehicles effectively doubling between 2002 and 2006. Analysts link the domestic market's new vehicle sales boom to increased spending power and business confidence as well as the lowest interest rates in decades. This was enhanced by government's inflation targeting of between 3 and 6% (Voutsinas, 2006: 33; AIEC, 2007:8). The share of black ownership in respect of new vehicles has increased from 29% in 1994 to 42% in 2005 according to research from Unilever and Research Surveys (Wasserman, 2007:7).

In 2007 an increase in fuel prices, the cumulative effect of interest rate increases as well as a strike in the automotive component sector impacted negatively on new vehicle sales and a decline of 5,3% was recorded (Ruthun, 2008a:8). The sharp decline of 21,1% in total new vehicle sales from 2007 to 2008 clearly reflected a domestic market under severe pressure. During 2008, the South African automotive industry was confronted with a severe profitability and viability crisis throughout the automotive value chain, resulting from the global financial crisis. Since 2008, the first-world economies and the industry's main export destinations, namely the USA, Japan and the European zone, have experienced a severe recession, which has had a negative knock-on effect on emerging market economies, including South Africa. Despite the interest rate cuts and declining fuel prices, household debt remained high and financial institutions continued to exercise caution in extending credit to consumers. In terms of initial projections for 2009, the total new vehicle market was expected to contract by about 16% compared to 2008 (NAAMSA, 2009b:4). The OEMs have responded by scaling down production to keep stock levels realistic, closed facilities for a longer period at year-end, switched to shortened working hours, implemented cost-saving measures, and placed moratoriums on new appointments. All stakeholders will inevitably have to focus on improving efficiencies in terms of production costs, service delivery and customer satisfaction.

A significant development in the domestic car market since 2007 has been the introduction of more Chinese vehicles. The affordable-car segment accounted for more than 40% of the passenger car market; however, Standard Bank analysis indicates that in the premium vehicle segment above R450 000 sales increased by 110% between 2003 and 2007, while sales of vehicles between R250 000 and R450 000 increased by 108% over the same period (Watson, 2008:7). There are 135 vehicles for every 1 000 people in South Africa compared to the world average of 130 vehicles for every 1 000 people (Venter, 2007a:24).

According to NAAMSA the percentage of diesel vehicles as a percentage of total sales has grown from 15,7% in 2000 to 23,4% in 2008. South Africa needs to implement more stringent fuel regulations to be able to use modern diesel passenger cars. Without new fuel regulations, the country would be denied access to new diesel car technology. A low-sulphur diesel at 50 ppm is already available in South Africa but only in limited areas based on demand levels. Since 2008, all cars in South Africa have to be fitted with a catalytic converter and motor vehicles with or without them would be able to use the new fuel (Cunningham, 2006:12; NAAMSA, 2009a:8).

Figure 5.1 reveals that the vehicles manufactured in South Africa show a significant decrease in the number of quality problems reported by owners of passenger cars. These results are based on South Africa's biggest annual automotive Customer Satisfaction Index survey conducted by Synovate.

The year 2007 was exceptional in terms of improvements made to vehicle quality, with the average problem count on passenger cars declining 23,5% compared with the 2006 figure, from 153 faults per 100 vehicles to 117. In 2008, the faults per 100 vehicles declined to 103. This is the best score attained by the industry since the inception of the study in 1992. The research forms part of Synovate's Competitive Customer Satisfaction project which sees more than 55 000 vehicle owners interviewed each year within 90 days of taking ownership of a new car. Data extrapolated from the survey has been used by OEMs for more than 13 years to benchmark vehicle quality standards (Murdoch, 2007:12; Synovate, 2008).

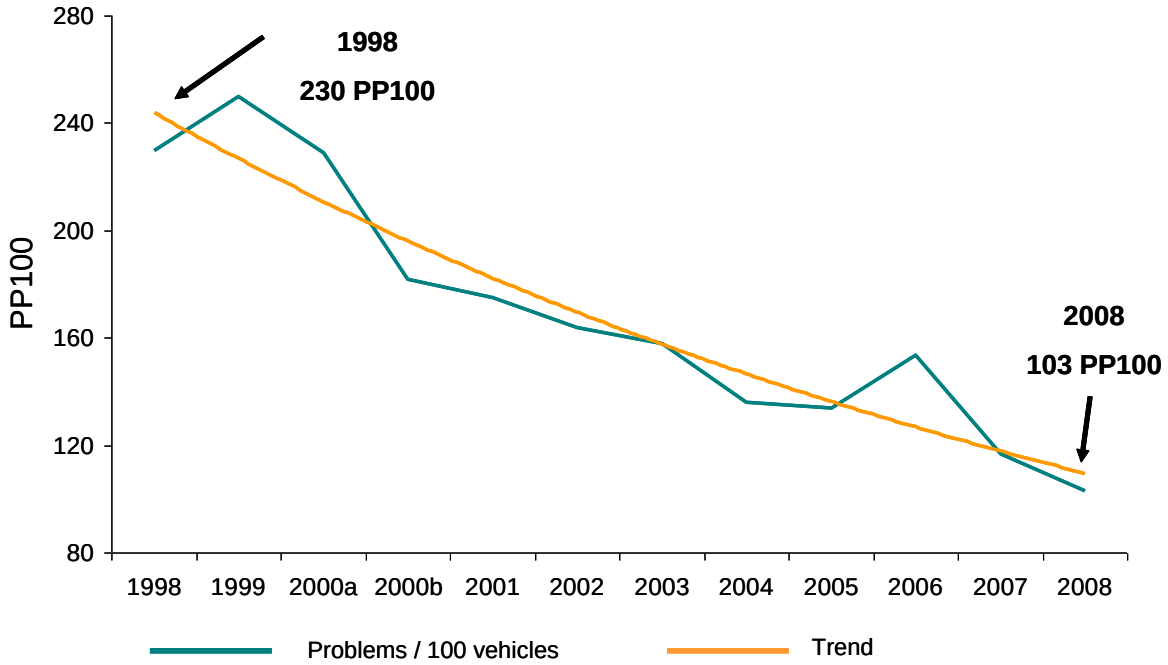

Figure 5.1: Quality of South African manufactured vehicles
Source: Synovate

The improved vehicle quality in South Africa is underpinned by the 2009 vehicle production site gold award won by Mercedes-Benz South Africa in the annual JD Power awards. The plant was the only one in Africa, Middle East and European region to win a gold award. It was the first time that a gold award has been made in this category to a South African plant. North and South America won no gold or platinum awards. Mercedes-Benz South Africa's award also means that it outclassed rival plants in Western and Eastern Europe (Crawford, 2009:40).

Inputs from respondents regarding the importance of the South African OEMs' image for their light vehicle exports to penetrate new markets in terms of quality as well as product quality as a factor contributing to an increase in their light vehicle exports will be obtained via the empirical survey forming part of this study.

South Africa's economy has been in a growth phase since the third quarter of 1999 up to 2007 – the longest period of economic expansion in the country's recorded history. GDP growth has been steady since 1999 and has averaged close on 5% per annum over the four years up to 2006. The South African monetary authorities have adopted an uncompromising, determined stance on containing and, over time, lowering inflation expectations. The inflation target in South Africa, based on the consumer

price index, excluding mortgages, is in the range of 3 to 6%. From the perspective of the automotive industry, expected growth in South Africa's GDP in real terms should continue to translate, all other things being equal, into continued growth in new vehicle sales. However, the higher interest rates since the middle of 2006 together with the introduction of the National Credit Act in June 2007 have inevitably impacted negatively on the South African new and used vehicle market and the broader automotive industry (NAAMSA, 2007:20, 21).

Figure 5.2 reveals that, historically, domestic vehicle sales have correlated closely with the movement of the real GDP growth rate in South Africa.

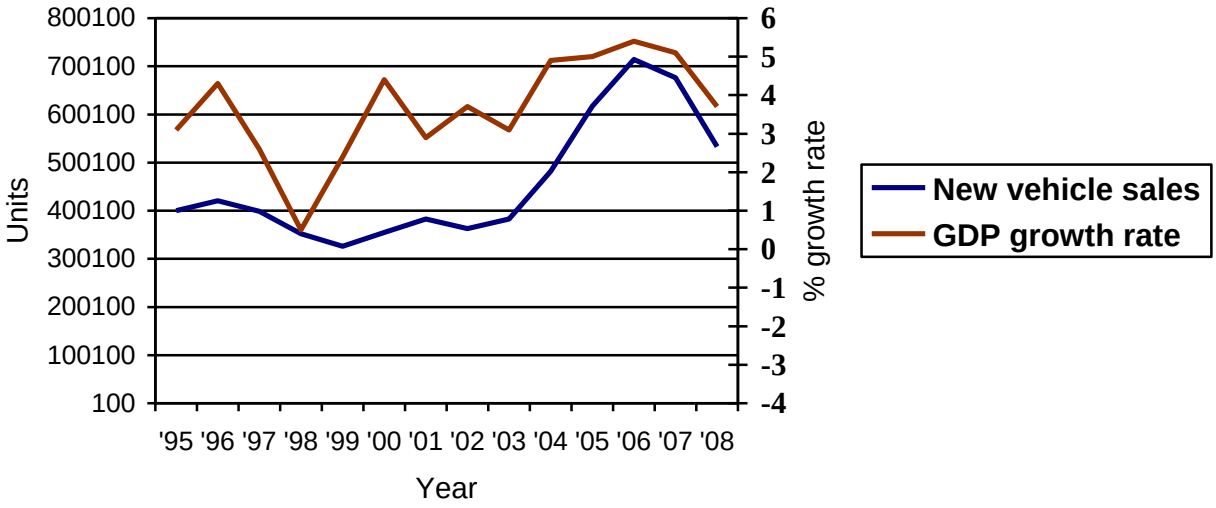

Figure 5.2: New vehicle sales and GDP growth rate
Source: Statistics South Africa; National Association of Automobile Manufacturers of South Africa

The 2007 National Credit Act introduced more stringent disciplines on the extension of credit by financial institutions. In 2008, the weakening currency and other macroeconomic factors heralded the beginning of a period characterised by lower rates of economic growth than had been the case for the previous four years. The market for new passenger cars is likely to remain under significant pressure up to 2010. The record growth in exports for 2008, however, benefited the vehicle and component industry's production volumes. In the longer term, government's focus on growth, employment and the creation of an environment to facilitate the attainment of a GDP growth rate of at least 6% per annum, on a sustainable basis, should benefit the South African automotive industry (ibid, 2007:20,21).

Table 5.2 reveals that the breakdown of exporting and domestic sales figures reflects the fundamental shift in the South African automotive industry under the MIDP. The period since 1998 has seen the domestic production of passenger cars becoming de-linked from the growth of the domestic market. Prior to the MIDP, industry growth was directly linked to the expansion of the domestic market, but since the introduction of the MIDP exports had become the major growth area. As a batch producer of vehicles, the South African automotive industry provides certain competitive advantages, such as its flexibility and ability to produce short production runs more competitively than its competitors. These advantages are often compelling in terms of creating multidirectional trade, as South Africa has insufficient domestic demand to warrant economic production of a broad range of passenger cars (DTI, 2004:41; Cokayne, 2008:26).

The manufacture of 1,2 million vehicles a year by 2020 in South Africa, under the new APDP to replace the MIDP from 2013 onwards, would reflect a quantum leap in terms of processes, technologies and the scale at which the domestic automotive industry currently operates. This would require a mass producer to emerge from a collection of what are really only batch vehicle producers at the moment. Toyota SA is most likely to be this mass-vehicle producer, as it is the biggest at the moment, while also making rapid progress in terms of export volumes. Producing more than a million vehicles a year would mean that a substantial proportion of this would have to be exported – around 50%. Government would be required to provide the legislative and regulatory space the industry needs; it also means that government infrastructure agencies, such as those responsible for the rail, ports and air-freight networks must have their operational act honed (Tony Twine as cited in Venter, 2006f:16, 17).

In 2008 Toyota was the overall market leader for passenger cars and commercial vehicles for the 29th consecutive year since 1980 and also surpassed BMW in 2006 as the country's main exporter (AIEC, 2008:23). For the first time in its history, the company launched six new models in the domestic market (Sippel, 2006: 6, 7).

Table 5.2: Production of vehicles from 1995 to 2008 – South Africa (units)

	PASSENGER CARS				LIGHT COMMERCIAL VEHICLES			
	Market			Exports as a % of total	Market			Exports as a % of total
	Domestic	Exports	Total		Domestic	Export	Total	
1995	233512	8976	242488	3,7	127363	6356	133719	4,8
1996	231616	3743	235359	1,6	128516	7125	135641	5,3
1997	215784	10458	226242	4,6	113204	8000	121204	6,6
1998	174870	18342	193212	9,5	98056	6806	104862	6,5
1999	159944	52347	212291	24,7	95326	6581	101907	6,5
2000	172373	58204	230577	25,2	104121	9148	113269	8,1
2001	172052	97599	269651	36,2	113111	10229	123340	8,3
2002	163474	113025	276499	40,9	101956	11699	113655	10,3
2003	176340	114909	291249	39,5	102007	11283	113290	10,0
2004	200264	100699	300963	33,5	123467	9360	132827	7,0
2005	210976	113899	324875	35,1	146933	25589	172522	14,8
2006	215311	119171	334482	35,6	159469	60149	219618	27,4
2007	169558	106460	276018	38,6	156626	64127	220753	29,0
2008	125454	195670	321124	60,9	118641	87314	205955	42,4

	MEDIUM AND HEAVY COMMERCIALS				TOTAL PRODUCTION		
	Market			Exports as a % of total	Market		Exports as a % of total
	Domestic	Exports	Total		Domestic	Export	
1995	12753	432	13185	3,3	389392	15764	4,0
1996	14617	685	15302	4,5	386302	11553	3,0
1997	13759	1111	14870	7,5	362316	19569	5,4
1998	12811	748	13559	5,5	311633	25896	8,3
1999	11736	788	12524	6,3	326722	59716	18,3
2000	12275	679	12954	5,2	356800	68031	19,1
2001	13323	465	13788	3,4	406779	108293	26,6
2002	14335	582	14917	3,9	405071	125306	30,9
2003	16957	469	17426	2,7	421965	126661	30,0
2004	21464	448	21912	2,0	455702	110507	24,2
2005	27406	424	27830	1,5	525227	139912	26,6
2006	33080	539	33619	1,6	587719	179859	30,6
2007	37069	650	37719	1,7	534490	171237	32,0
2008	34659	1227	35886	3,4	562965	284211	50,5

Source: National Association of Automobile Manufacturers of South Africa

Table 5.2 reveals the domestic production of vehicles from 1995 to 2008. Up to 2004, light commercial vehicle manufacturing was still principally focused on the domestic market, hence the flat to deteriorating trajectory evident since 1995. Between 1995

and 2005, exports of light commercial vehicles were mainly destined for Africa, which presented limited scope for significant numbers. The significant increase in the 2006 light commercial vehicle exports, however, represents the Toyota Hilux exports to Europe and Africa. Exports of passenger cars to global markets, however, increased significantly by 1 702% between 1995 and 2008 (DTI, 2003a:8; NAAMSA, 2009a:22).

As further revealed in Table 5.2, domestic medium and heavy vehicle sales have been proportionately higher than passenger car sales since 2002. These vehicles are considered fixed investments and capital inputs to the economy; therefore sales growth in this sector illustrates South Africa's increasing investment in productive equipment. The trend indicates that South African companies have remained largely resilient to global uncertainties since 2002, hence the significant growth (DTI, 2003b:12; NAAMSA, 2007:22; NAAMSA, 2009b).

The researcher is responsible for compiling and presenting the OEM aggregate quarterly and annual position to the Monitoring Committee of the MIDC. The aggregate position is based on the quarterly customs accounts of each of the OEMs for SARS and contains relevant information in respect of the MIDP. The information includes the number of vehicles manufactured, the respective vehicles and original equipment component imports and exports, duties paid and local content. The minutes of the Monitoring Committee meeting of 25 March 2009 (MIDC, 2009) reveal that four OEMs still paid duty in 2008, indicating that they could not rebate all the import duties on their import requirements. The amount of duties paid by the OEMs ranged from as low as R8,2 million in 1999, when the vehicle exports started to increase, to a high of R1 730,8 million in 2006 and R1 460,8 million in 2007 when the domestic market reached record levels. The ad valorem customs and excise duty is the fiscal duty levied by the National Treasury on imported and domestically manufactured vehicles respectively. The OEM aggregate position captures the ad valorem customs duty, which is levied on the imported vehicles. The duty ranged from a low of R303,6 million in 1996 when the MIDP commenced to a high of R1 418,1 million in 2006 when imported vehicles reached their peak level. This information emphasises the fact that several OEMs are still in a duty-paying position and have not yet achieved duty neutrality.

The OEM aggregate position also revealed that the local content of domestically manufactured vehicles under the MIDP ranged from a low of 42,9% in 1995 to a high of 59,7% in 2004. Local content is influenced by aspects such as the domestic model mix, profit margins, price increases and currency fluctuations. According to Black (2007:95, 96) the material local content (total domestic component purchases by the OEMs) ranges between 26 and 32%. New models introduced generally start off with lower local content levels and this level increases as automotive component suppliers follow the investments by the OEMs and invest accordingly. Local content also increases through concerted domestic automotive component sourcing efforts by the OEMs. Higher profit margins, price increases and an appreciating currency also result in higher local content levels under the MIDP in the domestic market. Whereas an appreciating currency would result in lower imported prices and hence increasing local content in the domestic market, a depreciating currency would result in higher rand export prices and hence a higher local content level in exports.

The impact of the production trends on the automotive industry's capacity utilisation will be discussed next.

5.5.1.2 Capacity utilisation

The South African automotive industry's capacity utilisation rate, on a weighted average basis, is broadly in line with the global average utilisation rate of about 76% (NAAMSA, 2009:18; PWC, 2009).

Table 5.3 reveals that the industry's capacity utilisation rates reflect underlying conditions in the domestic and export markets. Three successive record-breaking years for domestic sales in the different vehicle segments from 2004 to 2006 and record passenger car exports in 2008 in particular support the varying production capacity levels.

Table 5.3: Vehicle manufacturing capacity utilisation (%) 1995–2008

Year	Passenger cars	Light commercials	Medium commercials	Heavy commercials
1995	84,3	81,7	81,3	81,9
1996	78,9	75,9	80,0	68,3
1997	77,3	70,6	77,6	74,2
1998	64,3	59,1	73,6	69,3
1999	64,6	57,5	69,7	61,9
2000	66,1	60,2	64,2	74,8
2001	72,2	62,6	69,8	78,1
2002	73,2	70,6	67,8	85,7
2003	77,2	69,6	60,7	85,6
2004	79,7	72,1	57,2	86,0
2005	81,1	79,9	84,4	95,9
2006	80,1	87,8	97,9	95,1
2007	67,7	82,7	91,7	95,3
2008	70,7	75,1	88,2	84,1

Source: National Association of Automobile Manufacturers of South Africa

Investments in export programmes by all the OEMs have increased the production capacity levels of the industry. The installed vehicle production capacity was increased in 2007, mainly as a result of Toyota SA doubling its vehicle production output from 120 000 units per annum to 220 000 units per annum (NAAMSA, 2009a:18; NAAMSA, 2009b).

5.5.1.3 Imports of vehicles into South Africa

Until the early 1990s, prohibitive tariff levels resulted in negligible imports of vehicles into South Africa. Vehicle prices were up to 72% above international levels, as revealed by a study of the competitiveness of the South African Motor Industry conducted by the Industrial Development Corporation in 1993. However, as a result of the MIDP, international competition in the South African automotive industry has increased substantially. According to Black and Bhanisi (2006:14) the OEMs face the prospect of the domestic market being eroded by imports as tariffs are reduced from prohibitive levels.

As far as used vehicles are concerned, strict control measures ensure that only a limited number of legal import permits are issued to allow used vehicles into South Africa. In terms of current legislation, used vehicles qualifying for an import permit include those for returning residents and immigrants, vintage cars, racing cars, donated vehicles for welfare organisations and adapted vehicles for persons with physical disabilities (DTI, 2004:36). According to information received from the Import and Export Control Division, International Trade Administration Commission, DTI, 1 231 permits were issued for used vehicles imported into South Africa during 2007 and 998 during 2008. The Division also issued 1 341 permits for used vehicles exported from South Africa during 2007 and 2 296 permits during 2008. Without a legal import permit, imported used vehicles cannot be registered on the National Transport Information System (NaTIS). The system also rejects stolen and non-complying vehicle registrations. All vehicle-manufacturing plants in South Africa have been linked to the system online to facilitate the collation of data of vehicles produced.

In 2007 and 2008, the researcher was the chairperson of the NAAMSA Vehicle Crime (VC) Committee which, along with government, is engaged in various actions and initiatives for combating the illegal import of used vehicles into South Africa. Used vehicles in transit to African countries via the Durban port declined to just over 30 000 units in 2008 from the 8 000 per month in 2006, as recorded by the International Vehicle Identification Unit (IVID) (IVID, 2008). In regular report-backs to the NAAMSA VC Committee, IVID, the South African Police Services (SAPS) and Business Against Crime (BAC) reported that the decline in used vehicles in transit occurred as a result of the imposition of the inspection and tracing regime by IVID and the SAPS. In addition, the imposition of existing legislation by the Department of Transport and SARS regarding the use of a temporary road permit to transport used vehicles out of the country, contributed to the significant decline in vehicle in transit numbers since 2006. The focus of the task teams has been extended to include imported new vehicles not complying with the South African Bureau of Standards compulsory vehicle specifications, illegal registrations on the NaTIS as well as inferior and counterfeit new parts impacting on road safety.

- The South African Bureau of Standards (SABS) Letter of Authority (LOA) was introduced in 2000 as a means of certification of compliance with SABS standards. The LOA has been instrumental in combating the

increasing levels of imports of non-complying vehicles, which tend to have substandard safety features to the detriment of road safety, as well as left-hand drive vehicles, which have not been allowed into the country since 2000.

- SABS homologation is the procedure that ensures that all new vehicle models comply with the relevant South African legislation, standards and specifications, as well as codes of practice, for motor vehicles intended for use by the public on public roads. The process for homologation must be carried out before any motor vehicle model is introduced into the South African market. This does away with the need to withdraw a motor vehicle model before it enters the market and reduces the possibility of resultant legal action against the supplier. A process of homologation is also required in respect of motor vehicle tyres.

Under the MIDP, the nature of the South African vehicle population, also defined as the number of registered vehicles, is changing. In 1995, 12 brands from eight domestic OEMs were available in South Africa. Buyers in the passenger car segment had 228 choices in the domestic market compared to the 54 brands and 1 923 model derivatives available in 2008, regarded as the biggest ratio compared to its market size in the world. Inroads into the domestic market by imports, initially by the South Koreans, were followed by the Indians and Chinese. Imported Indian and Chinese vehicles challenged the domestic market on many levels, especially in terms of cost (Preuss, 2005:1; Clarke, 2006:38–40; NAAMSA, 2009:40). In 2001 CBU exports exceeded imports for the first time. However, imports into the domestic market are increasing at a rapid pace negating some of the benefits of a growing domestic market.

Table 5.4 reveals that total passenger car and commercial vehicle imports increased significantly from 26 339 units in 1995 to a high of 312 855 units in 2007 before declining to 254 633 units in 2008: the latter is in line with the depressed domestic market conditions. Imports of light vehicles increased from 6,6% in 1995 to 47,7% of total domestic new vehicle sales in 2008. This trend is indicative of the aim of the MIDP to encourage domestic companies to specialise in high volume models, obtain economies of scale benefits to export competitively and in turn import the low volume

models not manufactured in South Africa (DTI, 2004:32; NAAMSA, 2007:22). The domestic model mix can now be arranged to provide the most effective combination of domestically manufactured and imported models to satisfy consumers.

Table 5.4: CBU imports 1995 to 2008 (units)

Year	Passenger cars	Light commercial vehicles	Total
1995	22305	4034	26339
1996	41768	4559	46327
1997	51978	4550	56528
1998	59951	5122	65073
1999	54426	4343	58769
2000	61749	4114	65863
2001	79508	4535	84043
2002	78128	5291	83419
2003	81919	5377	87296
2004	127389	8938	136327
2005	208892	23199	232091
2006	266247	40208	306455
2007	265095	47760	312855
2008	203808	50825	254633

Source: National Association of Automobile Manufacturers of South Africa

In terms of trade, in 2008 South Africa imported light vehicles from 32 countries. Japan with 81 604 units, followed by Germany with 40 436 units, the UK with 19 296 units, South Korea with 12 876 units, China with 8 828 units and India with 8 457 units were the main countries of origin based on reported sales (NAAMSA, 2009a:11).

The evolutionary path of the OEMs in the domestic market impacts significantly on the automotive component suppliers as well, which will be discussed next.

5.5.1.4 Automotive component imports into South Africa

In the early 1990s, the majority of South African-based OEMs were South African owned, operating under licence to multinational corporations and manufacturing exclusively for the domestic market and the small sub-Saharan African market. By

2008 all eight of the OEMs were fully owned by foreign OEM parent companies. This had a direct impact on the composition of the automotive components industry with multinational component manufacturers establishing greenfield/new operations or purchasing existing operations in following their main customers, the OEMs.

Capital-intensive components, such as the engines, gearboxes and interior electronic components, of which the local manufacture is not economically viable due to the relatively low volumes, are mainly imported and the remainder sourced in the domestic market. The proliferation in vehicle models has caused a variety of problems regarding the availability of parts; inferior quality components abound and customers are often unhappy. The complexity of stocking parts for the plethora of models is increasing. Most affected by the trend are the genuine replacement parts suppliers, who administer about 65% of the market in that they stock components for all models. However, franchised dealers, who stock parts for their own brands only, are also affected. The number of parts stocked ranges from 1 000 new components for every new model for BMW up to 4 500 different parts for every new model for Toyota (Clarke, 2006:38–40). With the introduction of more models, the complexities of dealing with parts availability have increased, putting huge strain on infrastructure and warehouse demand and after-sales service. After-sales service is a critical success factor in launching any new model owing to the responsibility towards customers to ensure that vehicles are properly and timeously maintained. Model proliferation has also impacted on economies of scale, with a decline in the volume of parts traded in per unit terms (ibid, 2006:38–40).

The domestic automotive industry's export performance under the MIDP will be discussed in the next section.

5.5.2 INDUSTRY EXPORT PERFORMANCE

The relevance of the effective doubling of new vehicles sales between 2002 and 2006 in respect of new vehicle sales and production is that the domestic market has moved to a sustainable higher level. This translates into greater production volumes for vehicles and automotive components, improved economic viability of investments and projects as well as increased international awareness. A sound domestic market is

often seen as a powerful support basis for successful export programmes (AIEC, 2007:8).

Intensifying competition for export markets, larger investments and a greater use of technology are the hallmarks of the current global economic environment where access to markets is the measure of global competitiveness. A compounded growth rate of 27% in value terms for CBUs and automotive component exports has been achieved since 1995 up to 2008. Given its export performance, South Africa's track record as a manufacturer and supplier of CBUs, automotive components and aftermarket parts has been firmly established (AIEC, 2008:27; AIEC, 2009:4).

Inputs from respondents regarding the value of the MIDP in the global automotive environment for the South African-based OEMs to generate light vehicle exports, to generate automotive component exports and to attract investments in vehicle plants locally will be obtained via the empirical survey forming part of this study.

The researcher, in his position at the DTI, established the DTI as the official source of trade data for the automotive industry from 1995 to 2004. Subsequently, in his position at NAAMSA and as Executive AIEC board member from 2005 to 2008, he established the AIEC as the official source of this data. The processed automotive trade data are based on the Customs and Excise statistics for vehicles and identifiable automotive components eligible under the MIDP. In the order of 211 country export destinations are listed by SARS. Since 2007, the researcher has been appointed to the ITAC Technical Working Group on behalf of NAAMSA to determine the eligibility of products under the MIDP. The researcher was also responsible for the following publications: the *Automotive Export Manual – 2007*, the *Made in South Africa: Automotive Export Manual – 2008* and the *Automotive Trade Data – 2009* published on behalf of the AIEC. The publications are a detailed guide to the performance of the South African automotive industry under the MIDP since its inception up to the end of 2008. The publications identify and prioritise the major automotive export destinations, the main automotive export trade blocs, the most important exported automotive components, the top growth markets and products, as well as the impact of various trade arrangements that have been enjoyed by South Africa since 1995.

The researcher, on behalf of the AIEC, is expected to encourage the DTI to participate annually in automotive National Pavilions, as well as inward trade missions to and outward trade missions from South Africa to foreign countries. In recent years, the industry has been participating in National Pavilions at major global events, including the Automechanika Frankfurt event in Germany, EquipAuto in Paris and the Automechanika Middle East in Dubai. A National Pavilion is regarded by the DTI as a flagship event at which South African companies participate under the banner of South Africa in promoting the relevant sector's capabilities. In some countries the Pavilions are accompanied by seminars highlighting South African export and investment opportunities. In 2006 and 2007, the researcher participated in the Automechanika Middle East event in Dubai on behalf of the AIEC in order to assess the market. Owing to the huge interest in South Africa he recommended that a National Pavilion event should be held in 2008. As a result, automotive exports to the United Arab Emirates increased by 787% from R52,3 million in 2005 to R464,1 million in 2008 (AIEC, 2006:95; AIEC, 2009:11). The DTI, through its Export Marketing and Assistance Scheme (EMIA), assists automotive component manufacturers financially to participate in exhibitions and missions abroad. The researcher also recommended an inward trade mission to the South African Automotive Week (SAAW) in 2007 and to the 2009 event. NAAMSA and NAACAM endorse the event as a platform for promoting the world-class capabilities of the domestic automotive industry. South Africa has also been able to attract the Automechanika brand and in March 2009 was the twelfth country in the world to host such an event. In 2009, NAAMSA became the sole owner of the Johannesburg International Motor Show (JIMS); this event is accredited as one of the 22 international motor shows by the International Organisation of Motor Vehicle Manufacturers (OICA). For both events the researcher recommended that inward trade missions be carried out to generate export business and business linkages.

The export performance of the South African automotive industry has been significant and in 2001 the value of automotive exports exceeded gold exports for the first time and has continued to do so since 2003. In 2008, South Africa exported automotive components and CBUs in significant volumes to 135 countries, up from 62 destinations in 1995. Total automotive export value increased by a substantial R26,6 billion or 39,3% to R94,2 billion in 2008 from the R67,6 billion in 2007. In 2008, 16

countries recorded export values in excess of R1 billion, a further 40 countries recorded export values in excess of R100 million up to R1 billion and 79 countries recorded export values in excess of R1 million up to R100 million (AIEC, 2008:14; AIEC, 2009:9–13).

Figure 5.3 reveals that the MIDP has proved successful in terms of both the automotive component and vehicle export perspectives.

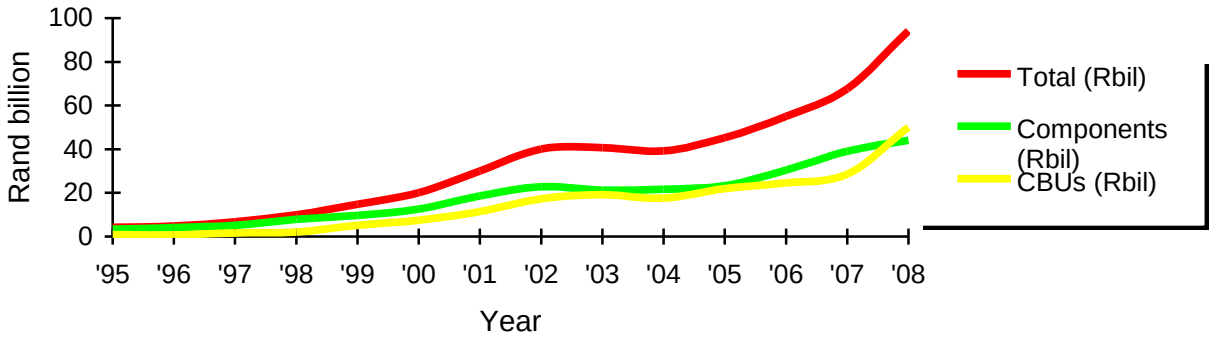

Figure 5.3: South African automotive exports from 1995 to 2008 (rand billion)
Source: Automotive Industry Export Council, 2009

The South African automotive industry enjoys significant advantages compared with many other exporting countries. Its flexibility to produce relatively short runs, an abundance of raw materials and low energy costs combined with the expertise, advanced technology and established business relationships of parent companies ensures that the domestic industry increasingly adds value to the global sourcing strategies of multinational automotive corporations. Most developing nations build mass-produced cars for targeted markets. In contrast, South Africa sells to various markets, which protects the industry from the cyclical fluctuations that affect exporters who are exposed to a single market. South Africa is also an ideal location for specific R&D, such as technologies for rugged or tropical conditions. Advantages include expertise in electronics arising from the defence industry and metallurgy as a result of the country's extensive mining and metals knowhow (NAAMSA, 2007: 9; Holmes, 2001:67).

Globally, flexibility is considered an essential competitive advantage for fast model changes and for successful niche marketing, both of which require an ability to use the

same platform to produce low volumes in a particular model derivative. The South African automotive industry has retained its capability where single production facilities manufacture a range of products at competitive prices to satisfy the domestic market. Given this flexibility, South Africa has a unique competitive advantage when it comes to low volumes, as is the case with lower volume vehicles and niche markets or run-out models. This compared to other countries where production is set up for long high-production runs (DTI, 2004:65).

However, export contracts are becoming increasingly difficult to keep because global OEMs are sizing up the strength and weaknesses of their plants around the world, which is likely to have a major effect on allocating production globally. One of the major challenges facing the domestic automotive industry is the issue of international competitiveness. South Africa's distance from most major markets means that logistics costs are high, putting OEMs at a disadvantage compared with other regions. South Africa's manufacturing and related costs are also too high compared with most developing countries. South Africa does not have mass production facilities in the motor industry to enjoy the economies of scale benefits. As a batch producer the domestic industry has some comparative and competitive advantages but not absolute advantages. The industry therefore is at a disadvantage in competing for even medium-scale international supply contracts. The delay with the finalisation of the 2005 MIDP Review, taking three years, also complicated planning decisions for the OEMs due to the lack of clarity on state support beyond 2012 (Crawford, 2007b: 20, 21).

5.5.2.1 Completely built-up unit (CBU) exports from South Africa

As discussed in chapter 4, a distinctive feature of the development of the South African automotive industry during the 1980s relates to the imposition of sanctions. This resulted in disinvestment by the two largest North American OEMs, General Motors and Ford, the early pioneers of automotive manufacturing in South Africa, with both firms selling their holdings to domestic parties. At the same time, two new Japanese entrants that came to have a dominant share of the market, Toyota and to a lesser extent Nissan, started to assemble vehicles in South Africa under franchise. Not all OEMs responded to the sanctions environment by disinvesting and the two German assemblers, Volkswagen and BMW, continued to operate in South Africa

through wholly owned subsidiaries. Apart from this direct German equity in the OEM industry, there was very little foreign presence up to the early 1990s. In 1992 another German assembler, Mercedes-Benz, raised its 50,1% stake in Mercedes-Benz South Africa to 76,6% by buying out a stake held by Volkskas. In 1994 Ford purchased a 45% stake in Samcor which was raised to 90% following an agreement with Samcor's parent, Anglo American, in 2000. In 1995, Nissan Diesel and Mitsui together purchased a 12,9% stake in Automakers and two years later Nissan purchased a further 50% stake. In 1996, Toyota Motor Corporation (TMC) purchased a 27,8% stake in Toyota South Africa and increased it to 35,3% in 2000. In 2002, TMC's stake was increased to 75%. In 2004, General Motors acquired the outstanding 51% in Delta and the firm was renamed General Motors South Africa. By 2005 all South African-based OEMs had become wholly owned subsidiaries of their respective parent companies, with the exception of Toyota, where minority local shareholding was retained. In October 2008 the remaining 25% stake was also acquired by Toyota SA (Gelb, 2004:41–45; Black, 2007:70).

The most beneficial element of the Phase VI programme appeared to be the incentive it gave to the development of an export element in the South African motor industry. In other words, exports by an OEM counted as local content. Firms cited the increased availability of incentives, the desire to increase the scale of production as well as improved product quality as the major factors motivating exports. Rising exports gave the OEMs greater flexibility in their sourcing arrangements (Black & Bhanisi, 2006:6, 7). According to NAAMSA/Response Group Trendline data, 12 000 vehicles were exported from South Africa in 1993 and 14 639 vehicles in 1994.

On the surface, Phase VI of the local content programme appeared to favour those companies that were subsidiaries of overseas manufacturers. The foreign-owned subsidiaries could move goods, tooling and technologies backwards and forwards with greater ease than the wholly South African-owned manufacturers. Light vehicle exports were funded through the excise duty structure. Consequently, the cost of the incentive was built into the price of the domestically assembled vehicle (MITG, 1994:14). Vehicle manufacturers in South Africa, however, were still insulated from more demanding markets and continued with outdated forms of manufacturing organisation.

As discussed in chapter 4, exporters of motor vehicles, components and automotive tooling earn credits based on their export performance under the MIDP. This export performance is calculated as the net of the export-selling price, normally the free-on-board (FOB) value less all imported content in the product exported. The monetary value of the local content of components and light and heavy motor vehicles that have been exported may be used to import an equivalent monetary value of automotive components and CBUs. The IRCC benefit or value derived from the export of CBUs or automotive components to the exporter in the importation of CKD kits amounted to 39,2% in 1995 and will be reduced to 11,2% by 2012. The IRCC benefit or value derived from the export of CBUs or automotive components to the exporter in the importation of CBUs amounted to 39% in 1995 and will be reduced to 8,4% by 2012. The reduced benefits mean that companies are forced to improve their competitiveness, productivity and efficiency annually. In order to secure a similar scale of benefits enjoyed under the MIDP in 2002, before the phasing down of the qualifying benefits under the MIDP started, exports and/or local content will have to increase by some margins until 2012.

Much of the strategic behaviour of firms in expanding market share in South Africa is directed at optimising their duty position. Minimising duty payments can be achieved in a number of ways. Firstly, firms can limit vehicle imports. Secondly, local content in domestically produced vehicles can be adjusted upwards. Thirdly, OEMs undertaking specified investments which qualify under the Productive Asset Allowance (PAA) receive import credits. Fourthly, OEMs can expand exports either of vehicles or automotive components and through increased exports reduce the liability of paying duty on imports. These considerations have had a decisive effect on the strategic choices made by domestic OEMs. The structure of the MIDP has been such that it has been easier to generate exports than to develop high local content in domestically manufactured vehicles. Exporting, initially of automotive components in the early stages of the MIDP, but later including CBUs, was the main strategic choice adopted by the OEMs to minimise duty payments in the face of increasing imports (Black & Bhanisi, 2006:16, 17).

According to Black and Bhanisi (2006:20), the successful implementation of export projects by the German-based OEMs has broken ground for the higher volume

models and was generating nearly 50% of their IRCCs from vehicle exports. Exports enabled them to make a greater contribution to the overall group by raising market share in South Africa. OEMs such as Ford and Nissan continued to pursue multi-model strategies, in some cases with low local content levels. They were, however, able to generate large scale exports of automotive components, which allowed them to offset import duties. This option was not sustainable in the medium to long term as their core business remains vehicle production. By 2005, the Japanese and US-based OEMs had subsequently joined with export programmes. What is evident is that South Africa is seen as a plausible primary location from which to supply some of the larger global markets. The biggest potential for growth and sustainability for the industry as a whole still lies in securing large-scale export contracts (Naidoo, 2006a:48, 50).

According to NAAMSA (2009b), in 2008 CBU exports from South Africa comprised 68,9% passenger cars, 30,7% light commercials and 0,4% medium and heavy commercial vehicles. Passenger car exports as a percentage of passenger car production was 60,9% in 2008 compared to the 3,7% in 1995. Following substantial growth in vehicle exports from 1997 through 2001, exports of vehicles consolidated at fairly high levels during 2002 and 2003. Vehicle exports declined in 2004, mainly as a result of certain models reaching their end-of-life cycle and the subsequent phasing in of new generation model replacements. The strong rand also had a negative impact on the industry's export performance during 2004. During 2005, for the first time, all eight OEMs announced or implemented export programmes with subsequent record export levels in 2005 and 2006. During 2008, exports of South African manufactured vehicles increased by a considerable margin of 65,9% compared to 2007. In rand terms, 2008 exports reached R50,1 billion compared to the R28,5 billion in 2007 (AIEC, 2009; NAAMSA, 2009a:8). Right- as well as left-hand drive models are exported from South Africa by certain OEMs.

The important objective in terms of model rationalisation is not just to reduce the number of base models produced, but also to increase the production volumes of those models manufactured in the domestic market as well as the local content in line with average volume increases. The average volumes of passenger cars per model produced by the OEMs have increased from 9 000 units in 1995 to 29 300 units in 2008 (AIEC, 2008:13; NAAMSA, 2009b).

Toyota was the leading exporter of built-up vehicles from South Africa in the early 1990s when exports were restricted to countries on the African continent. However, this all changed when Volkswagen of SA clinched its first contract to export Jettas to China to become the biggest exporter from the African continent under the MIDP in 1995 as well as from 1998 to 2000. BMW SA and DaimlerChrysler SA, now Mercedes Benz of SA, surpassed Volkswagen of SA in 2001. Toyota SA lost further ground as an exporter when the South African-based German companies secured substantial contracts to export to Europe, the USA, Japan, Australia and a host of other markets. Toyota SA Motors began its export programme in 2003 and made rapid progress to become the top vehicle exporter since 2006 with exports of its Innovative/International Multipurpose Vehicle (DTI, 2001:16; AIEC, 2007:53, 54; Venter, 2007b:9, 72).

The export performance of the individual OEMs will now be discussed in more detail in order of their 2008 export performance. In 2008, Toyota was the top exporter of CBUs from South Africa followed by Volkswagen, BMW, Mercedes-Benz, General Motors, Ford, Nissan and Fiat. In the initial years of the MIDP a proliferation of models were produced before model rationalisation commenced in the industry. According to NAAMSA the number of model platforms produced in South Africa decreased to 18 base models in 2008, down from 42 base models before 1995. A model platform refers to a number of base models which are produced on the same production line. In the initial years of the MIDP, exports were mainly restricted to SADC countries as a result of licence agreement restrictions, OEM domestic ownership issues and lack of integration into the global networks of parent companies.

Toyota

In 1995 Toyota's production consisted of six platforms. Up to 1995 Toyota also produced the Toyota Land Cruiser light commercial vehicle and the Toyota Cressida passenger car model.

Table 5.5 provides a breakdown of Toyota SA's light vehicle production and exports under the MIDP.

Table 5.5: Toyota SA light vehicle production and exports

	Carri		Hi-Ace		Hilux		StallionAvanza		Venture	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	-	-	3125	133	26910	1311	4304	131	8408	459
1996	-	-	3192	76	26849	1028	4499	193	8451	401
1997	-	-	3548	49	23910	1487	3995	236	5571	692
1998	550	22	3386	35	18631	1172	2962	117	3670	368
1999	565	19	2969	30	22206	948	1754	59	2672	225
2000	571	17	2306	38	22162	833	977	70	607	47
2001	660	8	3727	15	24938	827	1043	201	1	-
2002	698	10	5355	41	23526	1178	968	131	-	-
2003	660	3	5864	32	25001	1386	1063	100	-	-
2004	752	4	8192	26	28826	1843	1195	88	-	-
2005	902	-	9922	8	42942	15267	421	83	-	-
2006	367	-	10667	-	73830	48863	-	-	-	-
2007	-	-	10656	-	91410	55326	7	-	-	-
2008	-	-	103	-	98702	69221	857	-	-	-

	Camry		Condor		Conquest		Corolla/RunX		Fortuner	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	10567	278	-	-	10058	41	27912	296	-	-
1996	7374	203	-	-	9221	105	25143	380	-	-
1997	5173	287	-	-	4432	28	29908	693	-	-
1998	3465	199	-	-	3652	1	22377	744	-	-
1999	1873	161	-	-	2602	1	17930	407	-	-
2000	1576	120	4591	278	1367	1	21865	432	-	-
2001	840	65	5323	843	27	-	18580	332	-	-
2002	-	-	4803	540	-	-	17638	91	-	-
2003	-	-	5429	517	-	-	38543	7239	-	-
2004	-	-	6788	880	-	-	41658	7935	-	-
2005	-	-	1296	183	-	-	41251	5104	-	-
2006	-	-	5	-	-	-	37338	11	5306	264
2007	-	-	-	-	-	-	31208	2754	9537	1298
2008	-	-	-	-	-	-	74721	56415	9010	1817

Table 5.5: Toyota SA light vehicle production and exports - continued

	Tazz		Total exports (excl. re-exported imports)	Total light vehicle production	Exports as % of light vehicle production	Number of export destinations
	Total	Export				
1995	-	-	2680	91288	2,9	6
1996	5994	77	2464	90723	2,7	15
1997	18952	194	3666	95489	3,8	18
1998	17616	93	2751	76309	3,6	17
1999	17468	85	1970	70039	2,8	12
2000	20263	43	1879	76285	2,5	26
2001	24671	48	2339	79810	2,9	22
2002	23401	65	2056	76389	2,7	21
2003	19795	12	9289	96355	9,6	24
2004	24158	15	10791	111569	9,7	21
2005	23604	3	20648	120338	17,2	62
2006	11879	2	49140	139392	35,3	52
2007	1	-	59378	142819	41,6	53
2008	1	-	127453	183394	69,5	56

Source: NAAMSA/Response Group Trendline

In 2008 Toyota's two platforms comprised the Hilux/Fortuner platform and the Corolla/Run X platform. In 2005 the Condor/Stallion platform came to an end and in 2007 the Hi-Ace model platform came to an end. One model that continued to remain in production long after being phased out in other advanced country markets was the Toyota Tazz, of which production only came to an end in 2006. Toyota light vehicle models are manufactured in Japan, China, India, Indonesia, Malaysia, Pakistan, Philippines, Taiwan, Thailand, Vietnam, Czech Republic, France, the UK, Turkey, Australia, Argentina, Brazil, Canada, Mexico, the USA, Venezuela and South Africa (OICA, 2009).

Table 5.5 reveals that Toyota's light vehicle exports remained at relatively low levels from 1995 up to 2002. Main export destinations for its Hilux and Venture light commercial vehicles and the Toyota Corolla model comprised SADC countries. The increase in exports in 2003 up to 2005 was attributed to the Toyota Run X and Corolla export programme to Australia. The further significant increase in 2005 and again in

2006 was attributed to the export programme of the Innovative Multipurpose Vehicle, consisting of the Hilux/Fortuner platform. Since 2005, the main export destinations for the Toyota Hilux export programme have included Algeria, Nigeria and the EU. Since 2008, the main export destinations for the Toyota Corolla have included Turkey, Nigeria and the EU. The focus of the company's major light vehicle export programmes is on a few concentrated markets in the African and EU regions. The company, however, capitalises on additional export opportunities in various African markets, hence the large number of export destinations.

It was only in 2002, when Toyota Motor Corporation (TMC) took a 75% controlling interest in Toyota SA, that meaningful export contracts became available to the domestic subsidiary. After obtaining the majority equity share in Toyota SA, the domestic subsidiary has been incorporated into Toyota's global strategy to become the number one vehicle manufacturer in the world. Toyota SA Motors is regarded as the pioneer of Toyota's foreign production. The company has been selected as one of the key players in Toyota's global supply network for the International/Innovative Multipurpose Vehicle (IMV), which is a global strategic model. This development marked the culmination of a programme embarked on jointly by Toyota SA and Toyota TMC to transform the local company from a purely local supplier into an effective Toyota TMC export base for supplying vehicles to markets in Europe and Africa. Toyota SA Motors's overall vehicle production will increase to 220 000 units per annum, which is comparable with some of the top facilities globally. Toyota SA Motor's total export contract over the product's lifetime is worth R120 billion, the biggest to date in South Africa. As part of the process since 2006, 12 new automotive component suppliers have also invested in South Africa, 4 000 jobs have been created and almost 50% of the total Toyota SA's investment spend has been with local suppliers with established BEE credentials. The local value added across the Hilux and Corolla sedan models is more than 60%. This makes the vehicles compliant with the requirements of the SA–EU free trade agreement with South Africa and thus eligible for importation into Europe free of duty. The investment by Toyota SA Motors will not only contribute to increased business confidence, but will also ensure that the company will be able to satisfy domestic consumers with a broader range of products via the MIDP's import/export complementation scheme (De Vos, 2005:62; Kok, 2005:19; 63; Erasmus, 2008:26, 27).

In 2004 Toyota SA was awarded its first significant export order, shipping Corollas to Australia. This was a test to see if the Durban plant could meet the Japanese parent's quality, cost and delivery standards. Clearly it could because the company has now begun a major export drive. In 2006 Toyota SA overtook established exporters and is now way ahead of other domestic vehicle manufacturers in terms of export volumes. In 2006, Toyota SA was Toyota Motor Corporation's tenth biggest vehicle producer outside Japan. Toyota SA indicates that its main competitors are no longer South African OEMs but its real rivals are other Toyota plants around the world (Furlonger, 2006b:40; Crawford, 2007a:14; Erasmus, 2007a:19; Venter, 2007b:9, 72).

In 2007 Totoya SA was ranked ninth in the Toyota Motor Corporation's total sales marginally ahead of Indonesia. In the context of the company's position in TMC's global markets, the importance of South Africa as a top-ten global market for the company is apparent. The performance of Toyota SA as the market leader in South Africa since 1979 was fundamental in the development of the company as a significant world class manufacturing hub that feeds into the Toyota global vehicle manufacturing network. It supports the Toyota Motor Corporation's philosophy of manufacturing vehicles as close as possible to the markets in which they are distributed. In the case of South Africa it represents markets in Africa and Europe (Murdoch, 2008a:9).

Full incorporation into Toyota's global production system and the transition to world-scale production also had important implications for suppliers as the firm has tried to increase local content. In 2002 Toyota had seven platforms with 160 suppliers, which, in 2007, was reduced to two platforms and 75 suppliers, mainly multinational companies. The parent company strategy was to localise automotive components in the country. It was important to achieve certain levels of local content in order to meet the EU rules of origin requirement of 60% for duty-free market access into the region. Toyota South Africa's relationship with its suppliers is fairly typical of an OEM–supplier relationship in the context of globalisation. Toyota South Africa increasingly deals with global follow-source firms or joint ventures and much effort had gone into facilitating these arrangements (Black, 2007:208–211).

Volkswagen

In 1995 Volkswagen's production consisted of five platforms. Up to 1995 Volkswagen also produced the Volkswagen Caravelle and Microbus light commercial vehicle models as well as the Audi 400 passenger car model. In 2008 Volkswagen's three platforms comprised the Golf 5/Jetta 5 platform, the Polo platform and the Citi Golf/Pickup platform. The Golf 4 and Jetta 4 platform came to an end in 2006. The Golf 1 was introduced in May 1978 and is still produced by Volkswagen. According to the NAAMSA/Response Group Trendline database 516 454 Golf 1 units had been sold up to the end of 2008. Volkswagen light vehicle models are manufactured in Germany, Belgium, Czech Republic, France, Hungary, Italy, Poland, Portugal, Slovakia, Spain, the UK, China, Argentina, Brazil, Mexico and South Africa (OICA, 2009).

Table 5.6 provides a breakdown of Volkswagen SA's light vehicle production and exports.

Table 5.6 reveals that Volkswagen's light vehicle exports started to take off in 1998. In 1995 Volkswagen's main export destination comprised China following an export consignment for left-hand drive Jettas. The company then proceeded to win orders for the third-generation Golf GTIs to the UK in 1997 and 1998, which comprised the majority of exports during those years. In 1999 up to 2003 the company's export programme involved an order for the fourth-generation Golf to Europe, mainly to Germany, the UK, Italy and Spain. In 2003, VWSA started with an export programme of the Polo models mainly to Japan and Australia. From 2004 an export programme was initiated for the fifth-generation Golfs, mainly to Japan and Australia, but also to China, New Zealand and Singapore. An export programme for the fifth generation Jetta, mainly to the UK and Australia, also started in 2004, with lower volumes destined for Germany, Japan and Singapore. Although the company exports low volumes to several export destinations, its major light vehicle export programmes focus on a few concentrated markets.

Table 5.6: Volkswagen SA light vehicle production and exports

	VW Pickup		VW T3 Minibus		Audi 500		Audi A4		Audi A4 Avant	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	1321	5	6468	31	264	1	2205	3	-	-
1996	1831	14	5603	24	7	-	5717	37	-	-
1997	1279	14	4209	29	-	-	4610	217	460	1
1998	960	12	3492	26	-	-	4176	224	578	2
1999	962	11	2652	58	-	-	2959	10	408	-
2000	747	6	2560	37	-	-	2999	12	574	2
2001	838	11	2417	33	-	-	1108	6	281	1
2002	875	7	1956	42	-	-	-	-	-	-
2003	867	19	-	-	-	-	-	-	-	-
2004	951	9	-	-	-	-	-	-	-	-
2005	877	-	-	-	-	-	-	-	-	-
2006	876	-	-	-	-	-	-	-	-	-
2007	677	-	-	-	-	-	-	-	-	-
2008	223	-	-	-	-	-	-	-	-	-

	VW Citi Golf		VW Fox		VW Golf		VW Golf 4		VW Golf 5	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	26841	82	181	-	8815	20	-	-	-	-
1996	26619	40	4	-	8565	28	-	-	-	-
1997	18672	168	-	-	7256	1885	-	-	-	-
1998	14700	107	-	-	10699	6424	3564	3564	-	-
1999	11299	76	-	-	395	3	44390	39271	-	-
2000	10200	43	-	-	9	-	35571	29122	-	-
2001	13165	112	-	-	-	-	35750	28737	-	-
2002	13440	156	-	-	-	-	37010	30325	-	-
2003	15378	103	-	-	-	-	24031	18388	-	-
2004	21386	8	-	-	-	-	4797	2215	17002	12628
2005	27939	11	-	-	-	-	11	3	36443	26944
2006	28624	74	-	-	-	-	-	-	36988	27309
2007	26403	-	-	-	-	-	-	-	31850	23859
2008	15878	-	-	-	-	-	-	-	29189	24151

Table 5.6: Volkswagen SA light vehicle production and exports - continued

	VW Jetta		VW Jetta 4		VW Jetta 5		VW Polo		VW Polo Classic 2	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	20113	6123	-	-	-	-	-	-	-	-
1996	11743	79	-	-	-	-	-	-	4395	-
1997	5649	91	-	-	-	-	-	-	15284	12
1998	4598	144	-	-	-	-	-	-	11135	16
1999	1861	78	1633	3	-	-	-	-	8256	23
2000	41	-	7204	27	-	-	-	-	7591	31
2001	-	-	7624	91	-	-	-	-	7113	92
2002	-	-	7224	208	-	-	2673	253	7785	72
2003	-	-	5901	215	-	-	22427	12204	10504	92
2004	-	-	3960	96	-	-	26666	12129	10698	107
2005	-	-	2659	105	-	-	34472	12964	11289	16
2006	-	-	90	-	6924	3	37892	8661	11943	21
2007	-	-	-	-	5507	2	39602	11769	9936	3
2008	-	-	-	-	8994	5639	31031	9987	8139	2

	VW Polo Playa		Total exports (excl. re-exported imports)	Total light vehicle production	Exports as % of light vehicle production	Number of export destinations
	Total	Export				
1995	-	-	6265	66208	9,5	6
1996	-	-	222	64484	0,3	9
1997	-	-	2417	57419	4,2	8
1998	2597	4	10523	56499	18,6	9
1999	7101	2	39535	81916	48,3	10
2000	6558	-	29280	74054	39,5	12
2001	8172	9	29092	76468	38,0	11
2002	6639	11	31074	77602	40,0	13
2003	10	-	31021	79118	39,2	12
2004	-	-	27192	85460	31,8	16
2005	-	-	40043	113690	35,2	14
2006	-	-	36068	123337	29,2	11
2007	-	-	35633	113975	31,3	11
2008	-	-	39779	93454	42,6	14

According to Volkswagen SA Managing Director, David Powels, the underlying rule for all multinational motor companies with South African-based export programmes is that the vehicles must have a solid sales base in the country. The declining market share of the segment, in which the fifth generation Golfs and Jettas compete, however, makes it uneconomic for the company to continue with these models. The loss of the fifth generation Golf and Jetta is part of the company's long-term manufacturing realignment, which will see Volkswagen SA concentrate on two long-term models, the Polo and the Citi Golf's replacement. The company is embarking on a R1,5 billion upgrade to increase daily vehicle production capacity from 600 to 800 units. Volkswagen SA has also won a five-year R12 billion contract to supply the Volkswagen group with diesel particulate filters from the end of 2008 onwards (Furlonger, 2008b:51).

The aggressive longer-term export strategy will enable Volkswagen SA to continue to import the premium segment Audi brand and the entire Volkswagen commercial vehicle range (Murdoch, 2008b:12). However, Volkswagen SA will not make decisions regarding producing new models in South Africa without clarity and certainty on the MIDP and its successor in the form of the APDP. In 2007 Volkswagen SA stated that in view of the delay in the finalisation of the 2005 MIDP Review, it was running the risk of missing out on the decisions that would be made in the coming months. This would mean that the chance could be gone for another six or seven years, as this is the life cycle of new product, production and location decisions (Crawford, 2007b:20, 21).

BMW

In 1995 BMW's production consisted of one platform. Up to 1995 relatively small numbers of the BMW 5-Series, 7-Series and 8-Series models were also produced with single-unit production of the 7-Series and 8-Series continuing until 1998 and 1999 respectively. In 2008 BMW's one platform comprised the new generation 3-Series platform. BMW light vehicle models are manufactured in Germany, Austria, the USA and South Africa (OICA, 2009).

Table 5.7 provides a breakdown of BMW SA's light vehicle production and exports.

Table 5.7: BMW light vehicle production and exports

	3-Series		7-Series		8-Series	
	Total	**Export**	**Total**	**Export**	**Total**	**Export**
1995	14621	560	-	-	-	-
1996	13211	464	1	-	-	-
1997	13578	3751	2	-	1	-
1998	14080	4226	7	-	-	-
1999	21068	9465	-	-	1	-
2000	35966	23371	-	-	-	-
2001	49623	36503	-	-	-	-
2002	55317	43578	-	-	-	-
2003	51623	40946	-	-	-	-
2004	44187	33512	-	-	-	-
2005	43277	29057	-	-	-	-
2006	53860	38207	-	-	-	-
2007	50300	38523	-	-	-	-
2008	36627	28418	-	-	-	-

	Total exports (excl. re-exported imports)	**Total light vehicle production**	**Exports as % of light vehicle production**	**Number of export destinations**
1995	560	14621	3,8	5
1996	464	13212	3,5	8
1997	3751	13581	27,6	12
1998	4226	14087	30,0	12
1999	9465	21069	44,9	11
2000	23371	35966	65,0	16
2001	36503	49623	73,6	18
2002	43578	55317	78,8	15
2003	40946	51623	79,3	12
2004	33512	44187	75,8	11
2005	29057	43277	67,1	9
2006	38207	53860	70,9	10
2007	38523	50300	76,6	10
2008	28418	36627	77,6	10

Source: NAAMSA/Response Group Trendline

Table 5.7 reveals that the company's light vehicle exports between 1995 up to 1998 consisted of relatively low levels. Main destinations during that period included Australia and various SADC countries as well as limited or single consignments to Brazil and Pakistan. A limited number of vehicle exports to Taiwan subject to a quota system, annually renewable by the DTI, started in 1997 up to 2008. From 1997 to 2000 exports of the 3-Series featured exports back to the company's OEM parent company in Germany to be channelled from Germany to other export markets. From 1998 to 2000, exports to the UK contributed to the significant rise in the company's export figures during those three years. Since 2001 exports have been mainly destined for the USA, Japan and Australia. With the exception of 2005, the USA was the company's main export destination for its left-hand drive 3-Series models from 2001 to 2008. In 2001 the African Growth and Opportunity Act (AGOA), allowing for duty- and quota-free access to the US market, was implemented and the company seized the opportunity for duty-free exports to the USA. From 2000 to 2008 the company's vehicle export programme focused on a few concentrated markets including the USA, Japan and Australia with low volume exports to Singapore, China, New Zealand and Mauritius.

Following the R3,5 billion investment for the new E90 3-Series sedan's launched in 2005, the BMW Rosslyn plant is regarded as the most advanced automobile plant in the Southern Hemisphere. In 2006, the BMW group had an overall market share of 7,8% in South Africa, the highest in the world outside Germany. The plant holds the capacity to produce more than 60 000 3-Series vehicles a year. Production of these vehicles, in both left-hand and right-hand drives, is mainly for export markets, which have accounted for over 70% of the plant's annual production since 2006. Taiwan received the first consignment of left-hand drive BMWs in the new export programme under the MIDP. In the order of 73% of some 270 000 vehicles produced during the lifecycle of the E46 3-Series sedan up to 2005 were destined for foreign BMW owners (Naidoo, 2006b:54, 55; Naidoo, 2007:98). According to Furlonger (2008c:65) the next 3-Series is due in 2012 and the model will be built in China, Russia and India, but exclusively for domestic consumption. Only South Africa and two German plants will cater for export demand.

In 2002, BMW's plant in South Africa was included in the Europe section of the JD Power Initial Quality Study, regarded as the industry's benchmark for assessing the quality of new vehicles, and won the highly prestigious European Gold Plant Quality Award. BMW SA was therefore ranked first among European plants for construction quality and beat major car manufacturing plants throughout the world, indicating that the drive towards achieving world-class quality is succeeding (DTI, 2002a:21).

Mercedes-Benz

In 1995 Mercedes-Benz's production consisted of five platforms. Up to 1995 Mercedes-Benz produced relatively small numbers of the S-Class and E-Class along with its main models of the C-Class and Mitsubishi Colt. Production of the S-Class and E-Class continued until 1999 and 2002 respectively. In 2000 the company discontinued contract assembly of Honda passenger cars. After major capital expenditure in 2007 capacity doubled and the plant was extensively modernised. In 2008 the two platforms comprised the Mercedes-Benz C-Class and the Mitsubishi Colt platforms. Mercedes Benz light vehicle models are manufactured in Germany, Austria, France, Spain, the UK, Japan, Argentina, Brazil, the USA and South Africa (OICA, 2009).

Table 5.8 provides a breakdown of Mercedes-Benz SA's light vehicle production and exports.

Table 5.8 reveals that from 1995 to 2008, Mitsubishi model exports comprised limited volumes while from 1995 to 2000, exports of the Mercedes-Benz C-Class model consisted of relatively low volumes. Export destinations mainly comprised SADC countries while an export programme to Australia, since 1997 comprised the majority of export volumes during 1998 and 1999. In 2000 an export programme to Japan was started and, in 2001, vehicle export levels increased significantly mainly as a result of a major export programme to the UK, which became the company's main export destination up to 2006.

Table 5.8: Mercedes-Benz SA light vehicle production and exports

	Mitsubishi Colt		Mitsubishi Triton		Mercedes 300		Mercedes ATV		Mercedes C-Class	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	6463	1	-	-	1	-	-	-	10889	185
1996	8742	153	-	-	1	-	1	-	10284	336
1997	6362	258	-	-	1	-	-	-	8906	674
1998	3667	171	-	-	-	-	2	-	7573	1444
1999	5611	187	-	-	-	-	-	-	7835	1728
2000	9502	465	-	-	-	-	-	-	9653	3988
2001	13523	475	-	-	-	-	-	-	38133	29715
2002	8482	478	-	-	-	-	-	-	48529	36324
2003	7765	248	-	-	-	-	-	-	43519	33040
2004	8406	375	-	-	-	-	-	-	42470	31323
2005	8980	358	-	-	-	-	-	-	41868	29370
2006	9238	158	-	-	-	-	-	-	34766	24143
2007	5344	9	-	-	-	-	-	-	21558	6436
2008	4656	-	146	20	-	-	-	-	51565	37487

Total	Mercedes E-Class		Mercedes S-Class		Honda	
	Total	Export	Total	Export	Total	Export
1995	2148	58	549	-	13059	139
1996	3306	197	218	9	11644	167
1997	3126	417	93	21	10097	410
1998	2202	164	50	11	7756	111
1999	2076	127	2	-	6557	108
2000	1567	1	-	-	2626	27
2001	276	-	-	-	20	13
2002	21	3	-	-	-	-
2003	-	-	-	-	-	-
2004	-	-	-	-	-	-
2005	-	-	-	-	-	-
2006	-	-	-	-	-	-
2007	-	-	-	-	-	-
2008	-	-	-	-	-	-

Table 5.8: Mercedes-Benz SA light vehicle production and exports - continued

	Total exports (excl. re-exported imports)	Total light vehicle production	Exports as % of light vehicle production	Number of export destinations
1995	383	33109	1,2	7
1996	862	34196	2,5	8
1997	1780	28585	6,2	14
1998	1901	21250	8,9	10
1999	2150	22081	9,7	10
2000	4481	23348	19,2	18
2001	30203	51952	58,1	26
2002	36805	57032	64,5	30
2003	33288	51284	64,9	32
2004	31698	50876	62,3	24
2005	29728	50848	58,5	27
2006	24301	44004	55,2	19
2007	1663	26902	6,2	13
2008	37487	56367	66,5	5

Source: NAAMSA/Response Group Trendline

The company's export programme of the new generation C-Class, launched in 2007, has concentrated on a single export market in the USA. The main reason for the decline in exports in 2007 was due to the fact that the Mercedes-Benz plant in East London had been refurbished during the year in preparation for the launch of the new C-Class model and as a result no vehicles were produced for exports for about five months during 2007. The company has seized the opportunities provided by the African Growth and Opportunity Act's (AGOA) duty- and quota-free access for its left-hand drive C-Class models, which was an important consideration in attracting the new generation model investment. The company's light vehicle export programmes focuses on a few concentrated markets.

Mercedes-Benz SA aims to improve on its 2006 eighth place in terms of revenue earned in the DaimlerChrysler global standings. The strategy to achieve this is wide-ranging, including increasing sales through a strong product offering, further black economic empowerment, and a sharper focus on skills development. Mercedes-Benz

SA won the new generation C-class for right- and left-hand drive model versions to be manufactured in South Africa from 2007 against stiff international competition. The company has stated that the global manufacturing environment is becoming more competitive and South Africa is compelled to compete with ever-increasing numbers of countries capable of manufacturing vehicles (Creamer, 2005; Crawford, 2007b: 20, 21; Venter, 2007d:10).

According to Hansgeorg Niefer, Chairman of Mercedes Benz-South Africa, other countries competing with South Africa have provincial or state level programmes, in addition to national programmes similar to the MIDP, that are WTO compliant. Niefer stated that the MIDP incentives and growth and development of the component supplier base were important to offset the logistical disadvantages of South Africa's geographic dislocation. In 2008, the logistics costs to the company on its C-Class, which is exported to the USA, were €2 000 a vehicle. These costs include the cost of importing the components for domestic manufacturing and the cost of exporting the vehicle after it has been manufactured in South Africa (Cockayne, 2008:36). In 2008 the overall market share of the Mercedes-Benz brand in South Africa was the second highest worldwide after Germany. The commercial division also maintained its market dominance in the country. Mercedes-Benz Financial Services is the largest captive automotive finance company in the country, having financed one in three of all Mercedes-Benz passenger cars sold in 2008 and 40% of all Mercedes-Benz commercial vehicles (Murdoch, 2009a:18).

Mitsubishi Motors, a division of Mercedes-Benz SA, started domestic manufacture of the new Triton bakkie in mid-2008. The export drive plays a major role in terms of the company's global market strategy and achieving the Mitsubishi Motors Corporation Revitalisation Plan. According to Mitsubishi, Triton has been developed as a global strategic model following three key concepts. These are 1) satisfying customer needs in terms of light commercial vehicle economy, durability and reliability; 2) offering levels of quality that further raise and consolidate the image of the Mitsubishi Motors brand on a global scale; and 3) accommodating the needs of a broad customer base for private, leisure and commercial use (Venter, 2006f:10, 63).

General Motors

In 1995 General Motor's production consisted of three platforms. Models produced up to 1995, and of which production ran out under the MIDP in 1995 and 1996, included the Opel Monza, Opel Rekord, Opel Calibra and Isuzu Relay. In 2008 General Motor's four platforms comprised the Corsa Utility platform, the Corsa platform, the Hummer H3 platform and the Isuzu KB platform. General Motor's light vehicles are manufactured in the USA, Mexico, Canada, Brazil, Argentina, China, India, South Korea, Thailand, Uzbekistan, Austria, France, Germany, Poland, Spain, Sweden, the UK, Russia, Australia, Egypt, Kenya, Tunisia, Nigeria and South Africa (OICA, 2009).

Table 5.9 provides a breakdown of General Motors SA's light vehicle production and exports. Table 5.9 reveals that the company's light vehicle exports remained relatively low from 1995 to 2006. Exports focused mainly on the Isuzu light commercial vehicle and the Opel Astra model into SADC countries.

In 2006, the Hummer H3 export programme started and main destinations for this vehicle included, for the first time, countries outside Africa. These include Saudi Arabia, the Netherlands and Australia with lower volumes destined for Japan, Russia, Israel and Malaysia. The company focuses on multiple export markets for its range of models produced since 2006. Imports into emerging markets such as Malaysia attract an import duty of 30% on non-Asian cars compared to zero duty on cars imported from the ASEAN countries. In addition, local excise duties of 60 to 105%, depending on engine size, are leviable on foreign cars on top of the 10% sales tax. General Motors SA believes that its growth in the African region is the result of a strong distribution network of 200 dealers with 300 sales and service points in 35 countries on the continent (Thomaz, 2009:56).

Table 5.9: General Motors SA light vehicle production and exports

	Isuzu KB		Isuzu Relay		Opel Corsa Utility		Opel Corsa Van		Hummer H3	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	22538	1478	9	-	-	-	-	-	-	-
1996	23862	1687	-	-	-	-	-	-	-	-
1997	24873	1511	-	-	4056	111	-	-	-	-
1998	20440	1370	1	-	4968	109	136	8	-	-
1999	18210	1601	-	-	4897	87	254	12	-	-
2000	18166	1537	-	-	6388	93	76	-	-	-
2001	16592	1801	-	-	7658	146	2	-	-	-
2002	14762	1989	-	-	7633	170	-	-	-	-
2003	13545	1051	-	-	6019	215	-	-	-	-
2004	16030	738	-	-	8519	47	-	-	-	-
2005	20612	955	-	-	18429	60	-	-	-	-
2006	23799	1664	-	-	23525	50	-	-	434	434
2007	20509	1755	-	-	24766	130	-	-	6061	5158
2008	19356	2165	-	-	21393	96	-	-	7041	6505

	Isuzu Frontier		Opel Astra		Opel Calibra		Opel Corsa		Opel Kadett	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	-	-	17043	360	9	-	-	-	6882	103
1996	-	-	14143	433	-	-	2746	17	5402	59
1997	-	-	10661	369	-	-	14838	206	4561	49
1998	1637	43	6176	209	-	-	10431	87	2185	10
1999	1632	44	7369	113	-	-	9339	59	2296	3
2000	1074	27	10106	49	-	-	9876	42	265	1
2001	880	49	7991	136	-	-	10192	56	-	-
2002	183	20	5855	268	-	-	10213	103	-	-
2003	4	-	4368	23	-	-	14237	55	-	-
2004	1	-	2916	12	-	-	18544	7	-	-
2005	-	-	778	2	-	-	21966	32	-	-
2006	-	-	31	-	-	-	19551	40	-	-
2007	-	-	2	-	-	-	12530	18	-	-
2008	-	-	-	-	-	-	4547	-	-	-

Table 5.9: General Motors SA light vehicle production and exports - continued

	Opel Monza		Opel Rekord	
	Total	Export	Total	Export
1995	5	-	28	-
1996	-	-	2	-
1997	-	-	-	-
1998	-	-	-	-
1999	-	-	-	-
2000	-	-	-	-
2001	-	-	-	-
2002	-	-	-	-
2003	-	-	-	-
2004	-	-	-	-
2005	-	-	-	-
2006	-	-	-	-
2007	-	-	-	-
2008	-	-	-	-

	Total exports (excl. re-exported imports)	Total light vehicle production	Exports as % of light vehicle production	Number of export destinations
1995	1941	46514	4,2	6
1996	2196	46155	4,8	6
1997	2246	58989	3,8	6
1998	1836	45974	4,0	11
1999	1919	43997	4,4	7
2000	1749	45951	3,8	6
2001	2188	43315	5,1	6
2002	2550	38646	6,6	7
2003	1344	38173	3,5	6
2004	804	46010	1,7	6
2005	1049	61785	1,7	6
2006	2188	67340	3,2	10
2007	7061	63868	11,0	12
2008	8766	52337	16,7	15

Source: NAAMSA/Response Group Trendline

Since 2004, General Motors SA has invested R2 billion in new facilities, equipment upgrades and the introduction of new models, including the US$100 million to enable the production of the Hummer 3 left-hand drive versions in 2004. General Motors SA also became the sole global source of the right-hand drive version, which will be followed by the production of the diesel derivatives. In the order of 500 job opportunities have been created by the investment. The choice of South Africa for the Hummer 3 contract was significant at the time as it emphasised General Motor's confidence in the domestic facility's ability to deliver in its process to globalise the Hummer brand. While the Hummer is aimed at strengthening General Motor's manufacturing profile in South Africa, the decision to build the model domestically is seen by some as reaffirmation of the country's stronger position in the automotive world's global scheme of things. General Motors SA stated that within the group's global network there is always competition between countries and plants to secure production volumes. Achieving global competitiveness is a key element influencing decisions in terms of optimal investment locations. South Africa is thus no different to other countries and needs to demonstrate that it is competitive versus other potential sources. The investment and expansions underline the role South Africa has begun to play not only in helping to revitalise General Motor's fortunes but also reinforcing the country's role as an emerging manufacturer of significance in the global automotive industry (Murdoch, 2006b:32; Venter, 2006d:11; Venter, 2006e:22; Crawford, 2007b:20, 21; Venter, 2007c:23).

General Motors SA is managed as an independent subsidiary within the global General Motors group management and the company will not be affected by the Chapter 11 filing in the USA. The company has not guaranteed any USA obligations, nor are any of its assets used as security for the US parent company's obligations (Mellet, 2009:8; Rabe, 2009:38). General Motors SA Managing Director Stevan Koch said that the company is fully integrated into the greater General Motors world to become a key platform for growth in the region. The company is poised to spearhead the brand's growth in Africa while consolidating a strong position on the southern tip of the continent. General Motor's volumes in Africa tripled between 2002 and 2007 and South Africa complements this growth via vehicle exports and supplying services such as engineering support, parts warehousing and a distribution network. The company has invested in a R250 million pan-African Parts Distribution Centre and sells six

brands into 30 African markets via 200 dealer network outlets and has four other African manufacturing facilities in Egypt, Kenya, Tunisia and Nigeria. General Motors see growth markets such as Africa and Asia as the future of the corporation. General Motor's sales outside North America reached 59% in 2007 and are still growing (Bentley, 2008a:10–14; Demuynck, 2008:28–33; Mellet, 2009:8).

Ford

In 1995 Ford's production consisted of nine platforms. Up to 1995, the Ford Sapphire and Ford Sierra models were manufactured by the company and, up to 1995, Ford's production included the assembly of Mazda, Land Rover and Mitsubishi light commercial and passenger car models. The production of most of these models continued in relatively small numbers under the MIDP. In 2008 Ford's three platforms comprised the Ford Ikon/Bantam platform, the Ford Ranger/Mazda BT-50 platform and the Ford Focus/Mazda 3 platform. The Land Rover Defender platform and Volvo S40 model production was discontinued in 2006. Ford-Mazda light vehicles are manufactured in the USA, Canada, Mexico, Brazil, Argentina, Colombia, Ecuador, China, India, Iran, Japan, Malaysia, Philippines, Taiwan, Thailand, Belgium, Germany, Spain, the UK, Turkey, Australia and South Africa (OICA, 2009).

Table 5.10 provides a breakdown of Ford's light vehicle production and exports. Table 5.10 reveals that from 1995 to 2005 the company's light vehicle exports have remained at relatively low levels. Main export destinations over this period comprised various SADC countries. Since 2002, Ford's export route has focused on its Rocam engine programme, with a capacity of 240 000 units per annum, as the sole supplier of the 1,3 litre engine to world markets and the 1,6 litre to selected markets.

Table 5.10: Ford light vehicle production and exports

	Ford Bantam		Ford Courier		Ford Husky		Ford Ranchero		Ford Ranger	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	5917	375	5312	154	115	-	-	-	-	-
1996	6353	355	5511	258	567	-	-	-	-	-
1997	5247	379	5510	318	77	-	350	-	-	-
1998	3813	337	5703	153	1	-	301	1	-	-
1999	3506	65	5334	200	-	-	3	-	-	-
2000	3955	174	525	21	-	-	-	-	8453	319
2001	4691	96	1	-	-	-	-	-	8297	514
2002	6928	296	-	-	-	-	-	-	6945	941
2003	10028	176	-	-	-	-	-	-	7681	569
2004	12436	43	-	-	-	-	-	-	10740	102
2005	16289	51	2182	2182	-	-	-	-	12374	101
2006	18302	36	711	711	-	-	-	-	12348	241
2007	18819	65	-	-	-	-	-	-	11110	297
2008	11974	95	1	-	-	-	-	-	16640	6702

	Ford Spectron		Land Rover Defender LCV		Mazda B-series		Mazda Bravo		Mazda Drifter	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	471	54	168	18	5928	184	-	-	-	-
1996	393	67	622	6	5179	160	-	-	-	-
1997	301	114	555	144	5482	220	-	-	-	-
1998	368	63	848	43	5546	145	-	-	-	-
1999	288	34	218	74	5801	388	-	-	-	-
2000	363	18	114	-	847	44	-	-	4206	159
2001	195	24	131	131	-	-	-	-	8690	647
2002	38	10	38	-	-	-	-	-	6191	534
2003	8	1	745	745	-	-	-	-	4469	235
2004	-	-	-	-	-	-	-	-	4692	124
2005	-	-	-	-	-	-	1032	1031	4642	118
2006	-	-	-	-	-	-	743	742	5964	217
2007	-	-	-	-	-	-	-	-	3343	179
2008	-	-	-	-	-	-	-	-	3	-

Table 5.10: Ford light vehicle production and exports - continued

	Mazda BT-50		Mazda Magnum		Mazda Marathon		Mazda Rustler		Mitsubishi L300	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	-	-	440	19	861	25	5884	466	2203	127
1996	-	-	482	13	723	24	6070	437	1673	87
1997	-	-	147	10	425	9	5080	222	1347	65
1998	-	-	19	-	715	5	3677	70	1056	-
1999	-	-	-	-	392	6	3424	110	818	-
2000	-	-	-	-	391	1	4499	709	945	-
2001	-	-	-	-	508	10	4230	118	302	-
2002	-	-	-	-	677	12	2459	368	-	-
2003	-	-	-	-	44	-	2	-	-	-
2004	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-
2007	2037	104	-	-	-	-	-	-	-	-
2008	5364	375	-	-	-	-	-	-	-	-

	Ford Escort		Ford Fiesta		Ford Focus		Ford Ikon		Ford Laser	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	1591	5	-	-	-	-	-	-	2932	10
1996	9291	70	-	-	-	-	-	-	3	-
1997	4340	61	3593	-	-	-	-	-	-	-
1998	2662	10	3556	1	-	-	-	-	-	-
1999	533	5	2649	16	-	-	-	-	-	-
2000	3	-	4255	7	-	-	-	-	-	-
2001	-	-	2896	2	-	-	3418	84	-	-
2002	-	-	2021	1	-	-	2090	113	-	-
2003	-	-	2926	2	-	-	2039	17	-	-
2004	-	-	29	4	-	-	4921	4	-	-
2005	-	-	-	5	13868	9608	4000	15	-	-
2006	-	-	-	16	26675	19447	100	4	-	-
2007	-	-	-	-	21179	15963	503	7	-	-
2008	-	-	-	-	18407	13530	1969	20	-	-

Table 5.10: Ford light vehicle production and exports - continued

	Ford Meteor		Ford Mondeo		Ford Telstar		Ford Tracer		L-R Defender	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	689	10	-	-	2115	18	4664	24	458	9
1996	-	-	-	-	1590	36	12332	28	963	13
1997	-	-	47	-	1005	48	8444	40	1085	62
1998	-	-	1722	3	212	-	4805	21	974	38
1999	-	-	1208	13	1	1	4126	6	197	23
2000	-	-	563	8	-	-	3548	15	225	-
2001	-	-	140	1	-	-	1024	2	33	12
2002	-	-	-	-	-	-	-	-	11	-
2003	-	-	-	-	-	-	-	-	630	408
2004	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-

	L-R Freelander		Mazda 3		Mazda 323		Mazda 323 Midge		Mazda 626	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	-	-	-	-	5064	46	5657	30	1577	29
1996	-	-	-	-	2	-	14697	11	1076	23
1997	-	-	-	-	3	-	10372	49	822	20
1998	-	-	-	-	1169	6	6579	13	101	12
1999	-	-	-	-	8198	36	48	-	-	-
2000	-	-	-	-	10317	72	2	-	-	-
2001	-	-	-	-	9722	118	-	-	-	-
2002	-	-	-	-	8473	143	-	-	-	-
2003	222	222	-	-	7082	127	-	-	-	-
2004	-	-	2659	-	479	2	-	-	-	-
2005	-	-	5043	5	-	-	-	-	-	-
2006	-	-	5917	-	-	-	-	-	-	-
2007	-	-	5190	14	-	-	-	-	-	-
2008	-	-	3881	9	-	-	-	-	-	-

Table 5.10: Ford light vehicle production and exports - continued

	Mazda Astina		Mazda Etude		Mazda MX-6		Mazda Soho		Mitsubishi Pajero	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	770	29	3009	79	1013	6	-	-	483	38
1996	1087	30	3665	64	430	-	-	-	1061	18
1997	522	5	1731	43	154	4	2120	3	977	50
1998	445	3	1436	17	88	-	2353	2	838	16
1999	640	4	2261	6	1	-	1504	-	708	74
2000	16	-	4061	24	-	-	247	-	361	72
2001	-	-	2672	35	-	-	-	-	12	24
2002	-	-	2869	30	-	-	-	-	-	-
2003	-	-	3517	34	-	-	-	-	-	-
2004	-	-	436	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-

	Volvo S40		Volvo S60		Volvo V40		Volvo V50	
	Total	Export	Total	Export	Total	Export	Total	Export
1995	-	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-
2001	1431	-	-	-	120	-	-	-
2002	1434	3	26	7	222	1	-	-
2003	1212	-	206	7	214	1	-	-
2004	459	1	104	13	38	-	-	-
2005	933	10	62	6	-	-	146	-
2006	1071	2	1	1	-	-	229	-
2007	156	1	-	-	-	-	2	2
2008	82	2	-	-	-	-	-	-

Table 5.10: Ford light vehicle production and exports - continued

	Total exports (excl. re-exported imports)	Total light vehicle production	Exports as % of light vehicle production	Number of export destinations
1995	1755	57321	3,1	9
1996	1700	73770	2,3	6
1997	1866	59736	3,1	7
1998	959	48987	2,0	7
1999	1061	41858	2,5	7
2000	1643	47896	3,4	8
2001	1818	48513	3,7	8
2002	2459	40422	6,1	8
2003	2544	41025	6,2	8
2004	293	36993	0,8	7
2005	13143	60571	21,7	9
2006	21417	72061	29,7	9
2007	16632	62339	26,7	9
2008	20733	58321	35,5	21

Source: NAAMSA/Response Group Trendline

The Ford Focus export programme started in 2005, focusing on Australia and New Zealand, however, since 2006 it has concentrated mainly on Australia. Exports of the Ford Courier and Mazda Bravo light commercial vehicle models to Australia and Japan respectively, featured in 2005 to 2006 but stopped thereafter. In 2008 the Ford Ranger exports focused on Thailand; import duty into Thailand for passenger cars is 80% ad valorem and for light commercial vehicles 40% ad valorem. Vehicles imported from other ASEAN countries attract no import duty. However, an excise duty of 30% on imported and domestically manufactured vehicles is levied. Up to 2007 Ford's light vehicle export programme concentrated on a few export markets, but since 2008 its vehicle production profile allows it to focus on multiple markets. Ford has secured an export contract to supply right- and left-hand drive Ford Ranger light commercial vehicles to African markets from 2008 onwards. About 24 000 units will be exported in 2009 and 40 000 in 2010, which will raise the company's exports to 60 000 units per annum (Venter, 2008:18).

In February 2008, Ford Motor Company of Southern Africa announced plans to invest R1,5 billion to expand production and export of the new-generation compact pickup truck to start in 2011 as well as 180 000 units of a new generation, turbocharged common rail Puma diesel engine, of which 50% will be exported. The annual production capacity at the Silverton plant in Pretoria will increase from 72 000 units to 110 000 units. Three quarters of the pickup trucks will be exported, primarily to markets in Africa and Europe. Hal Feder, President and Chief Executive Officer of the company, said that winning the investment highlighted the company's strategic position within the future global footprint of Ford Motor Company. He said that the magnitude of the project was indicative of how South Africa could benefit from having an internationally competitive automotive industry (Murdoch, 2008a:14).

Nissan

In 1995 Nissan's production consisted of seven platforms and, up to 1995, Nissan had manufactured the Nissan Langley and Skyline passenger car models. In 2008 Nissan had only three platforms, comprising the Nissan Tiida platform, the Nissan Hardbody platform and the Nissan 1400 LDV platform. The Tiida model was introduced in 2006 while production of 1400 LDV came to an end in 2008 and was replaced by the Nissan NP200 light commercial vehicle model. Nissan-Renault light vehicles are manufactured in Japan, China, Indonesia, Malaysia, Philippines, Taiwan, Thailand, India, Iran, South Korea, France, Romania, Slovenia, Spain, the UK, Russia, Turkey, Argentina, Brazil, Colombia, Mexico, the USA, Morocco and South Africa (OICA, 2009).

Table 5.11 provides a breakdown of Nissan's light vehicle production and exports. Table 5.11 reveals that from 1995 to 2008, the company's light vehicle exports consisted mainly of the Nissan Hardbody and Nissan 1400 light commercial vehicles. Export destinations included various SADC and African countries. Between 2002 and 2004, limited volumes of the Nissan Hardbody were exported to France with a once-off consignment in 2006 to Greece, Portugal, the UK and the Netherlands. From 1995 Nissan was South Africa's leading exporter of commercial vehicles to Africa with right - and left-hand drive "built for African conditions" vehicles until it was surpassed by Toyota in 2006. Since 1995, the company's export programme has focused on multiple export markets mainly in Africa.

Table 5.11: Nissan light vehicle production and exports

	Nissan I Tonner		Nissan 1400		Nissan E20		Nissan Hardbody		Nissan NP200	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	1941	104	9411	379	535	2	13195	807	-	-
1996	38	15	8396	700	2	-	14753	1352	-	-
1997	4	-	4913	256	-	-	12554	1849	-	-
1998	-	-	5767	185	1	-	13036	2396	-	-
1999	-	-	6144	130	-	-	11950	2297	-	-
2000	-	-	7049	285	1	-	16830	4264	-	-
2001	-	-	7333	367	-	-	16438	4774	-	-
2002	-	-	7399	374	-	-	17716	5118	-	-
2003	-	-	8364	441	-	-	20204	5930	-	-
2004	-	-	9274	409	-	-	22164	5528	-	-
2005	-	-	9055	349	-	-	22313	5026	-	-
2006	-	-	9800	297	-	-	25425	7169	-	-
2007	-	-	8494	471	-	-	21691	5771	-	-
2008	-	-	5312	591	-	-	17592	7732	1809	-

	Nissan Almera		Nissan Primera		Nissan Sabre		Nisan Sani		Nissan Sentra	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	-	-	-	-	1931	6	688	6	14725	195
1996	-	-	-	-	1018	4	291	2	10884	279
1997	-	-	-	-	879	-	702	-	7976	185
1998	-	-	611	-	722	-	847	1	8268	164
1999	-	-	1874	1	368	-	517	-	5985	200
2000	-	-	628	-	2	-	-	-	6727	177
2001	3599	30	60	-	1	-	-	-	3175	192
2002	8562	262	1	-	-	-	-	-	38	-
2003	8812	302	-	-	-	-	-	-	-	-
2004	9485	221	-	-	-	-	-	-	-	-
2005	8954	152	-	-	-	-	-	-	-	-
2006	4361	88	-	-	-	-	-	-	-	-
2007	23	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-

Table 5.11: Nissan light vehicle production and exports - continued

	Nissan Tiida		Nissan Livina	
	Total	Export	Total	Export
1995	-	-	-	-
1996	-	-	-	-
1997	-	-	-	-
1998	-	-	-	-
1999	-	-	-	-
2000	-	-	-	-
2001	-	-	-	-
2002	-	-	-	-
2003	-	-	-	-
2004	-	-	-	-
2005	-	-	-	-
2006	5450	-	-	-
2007	10623	50	447	-
2008	3629	74	3970	-

	Total exports (excl. re-exported imports)	Total light vehicle production	Exports as % of light vehicle production	Number of export destinations
1995	1497	42426	3,5	12
1996	2352	35382	6,6	13
1997	2290	27028	8,5	19
1998	2746	29252	9,4	21
1999	2628	26838	9,8	26
2000	4726	31237	15,1	30
2001	5363	30606	17,5	33
2002	5754	33716	17,1	36
2003	6673	37380	17,9	31
2004	6158	40923	15,0	36
2005	5527	40322	13,7	37
2006	7554	45036	16,8	39
2007	6292	41278	15,2	25
2008	8397	32312	26,0	23

Source: NAAMSA/Response Group Trendline

Nissan SA has stated that the company, having increased its production locally, would like to increase exports and, in 2003/2004, it invested R300 million to position itself as a potential manufacturing base for exports. However, exports are dependent on efficiency capacity and cost competitiveness when compared with other low-cost countries. The lack of an export programme and long-term policy certainty would have had a detrimental effect on Nissan SA, considering its future plan to grow the export market (DTI, 2004:58; Crawford, 2007b 20, 21).

When the Nissan-Fiat alliance came to an end in South Africa in 2007, the Renault-Nissan alliance confirmed the launch of a new manufacturing project following the identification of Nissan's plant at Rosslyn as having the potential to maximise synergies between the two groups. R1 billion will be invested to build right-hand drive versions of Renault's Logan-based Sandero passenger car and Nissan's NP200 light commercial vehicle as a replacement for the 1400 half-tonner. Both vehicles will be built off the Logan platform. Production output will be increased from 40 000 to 68 000 units a year from 2009 onwards. The possibility of exports to Africa and South America is being investigated for the two models (Murdoch, 2008c:10). With Fiat discontinuing is vehicle production in South Africa, Renault will become the eighth OEM in South Africa from 2009 onwards.

According to Murdoch (2009a:18) Nissan has stated that the company plans to increase its local content on its locally manufactured cars and light commercial vehicles from the current 40 to 45%, to 60% up to 2010. High logistics costs and high import duties have been stated as the main reasons for the focus on localising components. However, the biggest limitation for the company in increasing local content has been the cost-competitiveness of local suppliers compared with suppliers in Thailand, Eastern Europe and South America. South African suppliers are 20 to 30% more expensive than their Thailand counterparts. Before the weakening of the rand in 2008, the difference was 40%.

Fiat

Table 5.12 provides a breakdown of Fiat's light vehicle production and exports.

Table 5.12: Fiat light vehicle production and exports

	Fiat Uno LCV		Fiat Palio LCV		Fiat Strada LCV		Fiat Uno		Fiat Palio	
	Total	Export	Total	Export	Total	Export	Total	Export	Total	Export
1995	1456	17	-	-	-	-	15633	142	-	-
1996	1355	44	-	-	-	-	14297	433	-	-
1997	847	27	-	-	-	-	7474	221	-	-
1998	725	-	-	-	-	-	6327	1	-	-
1999	550	-	-	-	-	-	6446	-	-	-
2000	514	-	-	-	-	-	4287	-	1648	-
2001	748	-	-	-	-	-	2970	-	2418	-
2002	622	-	-	-	-	-	3188	-	775	-
2003	503	1	24	24	-	-	1658	-	429	1
2004	312	-	-	-	-	-	641	-	354	1
2005	-	-	163	-	1031	-	-	-	77	-
2006	-	-	184	-	3663	-	-	-	2	-
2007	37	-	27	-	1806	-	-	-	1	-
2008	103	-	2	-	1383	-	-	-	1	-

	Fiat Palio II		Fiat Siena		Fiat Siena II	
	Total	Export	Total	Export	Total	Export
1995	-	-	-	-	-	-
1996	-	-	-	-	-	-
1997	-	-	-	-	-	-
1998	-	-	-	-	-	-
1999	-	-	-	-	-	-
2000	471	-	820	-	766	-
2001	1443	-	670	-	1392	1
2002	2848	81	21	-	1662	43
2003	2341	2	1	-	1216	17
2004	1958	1	-	-	326	2
2005	1308	-	-	-	345	-
2006	1440	-	-	-	233	-
2007	393	-	-	-	40	-
2008	83	-	-	-	11	-

Table 5.12: Fiat light vehicle production and exports - continued

	Total exports (excl. re-exported imports)	Total light vehicle production	Exports as % of light vehicle production	Number of export destinations
1995	159	17089	0,9	5
1996	477	15652	3,0	7
1997	248	8321	3,0	4
1998	1	7052	-	1
1999	0	6996	-	-
2000	0	8506	-	-
2001	1	9641	-	1
2002	124	9116	1,4	2
2003	46	6172	0,7	3
2004	4	3591	-	1
2005	0	2924	-	-
2006	0	5522	-	-
2007	0	2304	-	-
2008	0	1583	-	-

Source: NAAMSA/Response Group Trendline

In 1995 Fiat's production consisted of two platforms. Up to 1995 Fiat had manufactured the Uno passenger car and the Uno light commercial vehicle models. In 2007 Fiat still had two platforms, comprising the Fiat Palio/Siena platform and the Fiat Strada platform. Fiat light vehicle models are manufactured in Italy, France, Hungary, Poland, Spain, Turkey, China, India, Brazil and South Africa (OICA, 2009) – the latter up to 2008.

Table 5.12 reveals that from 1995 to 2004, the company's exports remained low with no exports recorded in 1999 and 2000 as well as from 2005 to 2008. The number of export destinations remained limited and the company focused its efforts on a few concentrated markets. In 1995 and 1996 export destinations included mainly Zimbabwe and low unit exports to other SADC countries.

A single consignment of the Fiat Uno to India in 1995 and two consignments of the Fiat Uno to Singapore in 1996 and 1997 also occurred, with exports in 2002 and 2003

mainly destined for Mozambique. In 2003 Fiat announced a R100 million investment up to 2005 for the production of the Strada pickup light commercial vehicle in South Africa. The aim was to become the global hub for exports to right-hand markets in the southern hemisphere and the UK from 2006 onwards. This investment did not materialise but the company was reluctant to withdraw from production in South Africa. However, the production alliance with Nissan in South Africa came to an end in August 2007 and Fiat became an importer of vehicles into the domestic market with the completion of the final production of a limited number of units in 2008. The contract manufacture advantage for Fiat at the Nissan plant included reduced labour costs, allowing the firm to concentrate on its sales and marketing activities and, because investment was kept to a minimum, it made withdrawal relatively easy.

Inputs from respondents regarding the main focus of the South African OEMs' vehicle production, whether being aimed at the domestic market or exports as well as the preference between a few concentrated or multiple export markets for the South African manufactured light vehicle exports will be obtained via the empirical survey forming part of this study.

Total light vehicle export performance

Table 5.13 reveals that CBU exports from South Africa have increased rapidly in the direction of new demanding markets such as Japan and the USA since 2000. From 1995 to 1997, the South African Development Community (SADC) was the main destination for CBU exports, while a single consignment by Volkswagen SA to China in 1995 comprised 40% of the export value during that year (DTI, 1997a:6; AIEC, 2007:53).

Following investments to accommodate export programmes by the mainly German-based OEMs, CBU exports increased by 131% in value terms and by 185% in units from 1998 to 1999. Between 1998 and 2001 the EU, and in particular Germany, became the main export destination as the export programmes of the German-based OEMs came to fruition. The successful implementation of export projects by the German-based OEMs has broken ground for the higher-volume models. The Japanese and US-based OEMs have subsequently joined with export programmes (DTI, 2000:11; AIEC, 2007:53).

Table 5.13: Top destinations of South African vehicle exports by value from 1995 to 2008 (passenger cars and light commercial vehicles)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
TOTAL (R billion)													
R0,6	R0,5	R1,3	R1,7	R4,7	R7,0	R10,9	R16,4	R18,7	R17,0	R21,4	R24,2	R27,8	R48,0
RANKING OF EXPORTERS Number 1 to Number 5													
VW	Toyota	BMW	VW	VW	VW	BMW	BMW	BMW	BMW	VW	Toyota	Toyota	Toyota
Toyota	Nissan	Toyota	BMW	BMW	BMW	MBSA	MBSA	MBSA	MBSA	MBSA	BMW	BMW	VW
GM	GM	VW	Nissan	Nissan	Nissan	VW	VW	VW	VW	BMW	VW	VW	BMW
Ford	Ford	GM	Toyota	MBSA	MBSA	Nissan	Nissan	Toyota	Toyota	Toyota	MBSA	MBSA	MBSA
Nissan	MBSA	Ford	MBSA	Toyota	Toyota	Toyota	GM	Nissan	Nissan	Ford	Ford	Ford	GM
TOTAL (units)													
15332	10868	18458	25148	58928	67352	107828	124724	126192	110059	139488	179320	170587	282984
USA (percentage of the total value)													
-	1	1	1	-	7	18	23	20	14	4	11	13	30
Japan (percentage of the total value)													
4	2	1	-	-	11	13	18	35	32	35	29	26	14
Australia (percentage of the total value)													
6	11	19	14	10	11	10	11	15	19	24	20	20	13
Nigeria (percentage of the total value)													
-	-	-	-	-	-	-	-	-	-	-	1	2	4
Turkey (percentage of the total value)													
-	-	-	-	-	-	-	-	-	-	-	1	1	3
Germany (percentage of the total value)													
-	-	5	26	57	40	19	12	3	1	1	1	1	2
Algeria (percentage of the total value)													
-	-	-	-	-	-	-	-	-	-	-	3	3	2
France (percentage of the total value)													
-	-	-	-	-	-	-	-	-	-	-	2	2	2
UK (percentage of the total value)													
1	2	2	15	13	9	18	17	16	24	20	12	3	2
Zimbabwe (percentage of the total value)													
23	35	18	7	2	1	3	4	2	1	1	1	2	1

Table 5.13: Top destinations of South African vehicle exports by value from 1995 to 2008 (passenger cars and light commercial vehicles) - continued

Other (percentage of the total value)													
66	49	54	37	18	11	19	15	9	9	15	19	27	27
EU (percentage of the total value)													
2,4	3,6	7,4	42,4	69,9	50,1	37,4	29,9	19,5	24,5	23,6	20,2	15,1	16,5
NAFTA (percentage of the total value)													
-	1,4	1,1	1,2	2,3	1,0	17,9	22,6	19,6	13,9	3,8	10,9	13,9	30,0
SADC (percentage of the total value)													
42,5	63,5	45,5	26,2	11,3	11,2	9,2	10,2	5,6	3,9	4,2	4,7	5,4	5,2

Source: Automotive Industry Export Council, 2007, 2009 (MBSA – Mercedes-Benz of South Africa, GM – General Motors, VW – Volkswagen)

During 2008 the domestic automotive industry exported passenger cars and commercial vehicles to 79 countries around the world of which 22 were right-hand and 57 left-hand drive countries. The industry's top destinations comprised the USA with 62 886 units, Australia with 32 197 units and Japan with 31 195 units. Exports to Africa increased significantly from the 38 767 units in 2007 to 72 707 units in 2008. South Africa enjoys significant advantages compared with many other exporting countries. The potential for growth is that there are still major markets for right-hand drive vehicle exports in Japan, the UK and Australia. In addition, left-hand drive models are already being exported by several OEMs, including BMW SA, Mercedes Benz SA and Volkswagen SA with other OEMs also indicating their intentions to focus on left-hand drive models for exports as part of their future generation export model programmes (Crawford, 2004:30; AIEC, 2007:53; AIEC, 2009).

Opportunities presented by the African Growth and Opportunity Act (AGOA), which was implemented on 1 January 2001 by the USA in respect of 37 African countries, allowed for duty- and quota-free access of all African exports to enter the US market. This trade arrangement provided impetus for the automotive sector's export drive to the extent of a 270% increase in total automotive exports to the USA between 2000 and 2001. The import duty on passenger cars into the USA is 2,5% ad valorem and on commercial vehicles 25% ad valorem. BMW SA in particular seized the opportunity to export left-hand drive 3-Series models to the USA. Since 2007 Mercedes-Benz's new

C-Class model has also found its way into the US market as its main export destination, which should expand the growth of vehicle exports further into that market (Creamer, 2006b:6; AIEC, 2007:53).

Prior to 1994 South Africa had no privileged form of market access into the European Union; in fact there were selected sanctions against South African products. The relationship changed with the advent of democracy and in September 1994 the EU extended its unilateral General System of Preferences (GSP) to South Africa. The GSP allows developed countries to apply trade preferences to some products coming from developing countries (Breitenbach, 2006a:12, 13). At present, South Africa's trade relations with the EU are governed by the Trade, Development and Co-operation Agreement (TDCA). The main objective of the TDCA is to create a free-trade area between South Africa and the European Union (EU) over a 12-year period: this will remove 90% of all trade barriers. The EU and South Africa will, in terms of the agreement, open their markets to each other at a different pace. The SA-EU free trade agreement on Trade, Development and Co-operation became effective on 1 January 2000. In May 2004, the biggest ever enlargement took place with 10 Eastern European countries joining the 15 countries forming part of the EU. On 1 January 2007 the EU welcomed its 26th and 27th members, Bulgaria and Romania. Poland, the Czech Republic, Hungary, Slovakia and Slovenia are significant to the automotive sector. The new countries will also be bound by the current free trade agreement (AIEC, 2008:29, 30).

From a South African perspective in terms of the automotive industry, the TDCA was only finalised on 15 December 2006, which meant that between 15 December 2006 and 1 January 2008 the EU would eliminate all import tariffs on South African-manufactured vehicles and automotive components. South Africa would return the compliment by applying preferential tariffs. Passenger cars into the EU normally attract an import duty of 10% ad valorem and commercial vehicles a duty of 22% ad valorem. Original equipment components attract an import duty of 3% ad valorem and aftermarket automotive parts an import duty of 4,5% ad valorem. From 1 January 2000, when the SA–EU Free Trade agreement was signed, the applied tariffs for automotive components into the EU were effectively reduced by 50% below normal EU duty rates, which provided South Africa with a competitive advantage against

competing countries. On 1 January 2002 the EU increased the preference extended to South Africa under its GSP to 3,5%%. This meant that South African passenger car exports into the EU only attracted a 6,5% import duty while original equipment components as well as aftermarket automotive components could be exported duty-free. On 15 December 2006 the import duty on passenger cars was reduced to 3,5%, to 1,5% on 1 January 2007 and fell away completely in January 2008. South African commercial vehicle exports to the EU were already duty-free and unaffected by the agreement (AIEC, 2008:29, 30).

In return South Africa is offering a 7% preference to the EU on passenger cars and light commercial vehicles and an 8% preference on medium and heavy commercial vehicles and buses. Original equipment components will get no preference while a large number of aftermarket automotive component parts will qualify for lower import duties. In order to qualify for zero tariffs into the EU, South African vehicles and components must contain at least 60% local content. The definition of local content includes South African raw materials, labour, parts, transport, manufacturing costs and profit margins, as well as the value of components and subcomponents originally sourced from Europe (Furlonger, 2006c:68; AIEC, 2007:16; Rutkiewicz, 2007:34).

In 2008, automotive exports (vehicles and components) to the EU amounted to 48,1% or R40,7 billion of South Africa's total automotive exports of R94,2 billion. This represented a significant increase of 49% compared to the R27,1 billion of total automotive exports to the EU since the SA–EU free trade agreement was implemented in respect of the automotive sector. Exports to the new member countries forming part of the expanded EU with effect from 1 May 2004 amounted to R2,12 billion or an additional 7,0% in 2007. Despite the 3,5% GSP extended towards South Africa on 1 January 2002, total automotive exports to the EU declined by 14% from 2002 to 2003, which could mainly be attributed to the strong appreciation of the rand of nearly 14% against the euro as well as the OEMs' vehicle export programmes which expanded away from the EU in the direction of new export markets such as Japan, the USA and Australia during this period (AIEC, 2008:30; AIEC, 2009:4).

Inputs from respondents regarding the impact of the SA-EU free trade agreement into the EU and the African Growth and Opportunity Act (AGOA) arrangement into the

USA in generating business for the South African-based OEMs will be obtained via the empirical survey forming part of this study.

The growing vehicle exports have been a spur for many domestic component suppliers to set their sights on increasing their export business as well, which will be discussed next.

5.5.2.2 Automotive component exports

Both the range, in respect of the diversity of automotive components, and reach, in respect of the number of destinations of such exports, are increasing. The domestic component sector has benefited from global developments and has received substantial export-oriented investment from domestic and foreign sources. These investments are evident in the rapid growth of exports since 1995. With the trade liberalisation of the South African automotive industry the OEMs actively sought out automotive component suppliers who were able to export and supply automotive components. The components had to meet the increasingly exacting standards of the OEMs' increasingly export-oriented manufacturing operations. Domestic automotive component suppliers thus had to link up with foreign firms in order to establish conduits to the international market. These arrangements have been frequently facilitated by the OEMs (AIEC, 2007:10, 11, 26; Black, 2007:228).

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The focus of exporters tends to be on high value domestically beneficiated automotive components that consume as little transport and space as possible. Since 2002, the strong rand has represented only one of many increasing pressures being put on automotive component suppliers. Component strategies, therefore, depend on many aspects. These include the individual company's international links, the need for technology and licences or sale of equity, the position in the aftermarket, the focus on niche markets, the type of product, the volume requirements and the dependence on OEMs. Owing to the MIDP, component manufacturers have tended to reduce their product lines and specialise, thus reducing costs and increasing exports in a narrow range of products. These automotive component production programmes not only benefit the country in terms of earning foreign exchange, but also bring new technologies to South Africa and create new job opportunities (AIEC, 2007:10, 11, 26; Black, 2007:228).

Table 5.14 reveals that a large share of automotive component exports since 1995 comprised catalytic converters and stitched leather seat parts.

Table 5.14: Major automotive component exports from South Africa, 1995 to 2008 (R million – FOB values)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Value in rand millions													
TOTAL													
3318	4051	5115	7895	9674	12640	18586	22883	21269	21733	23277	30052	39106	44055
Catalytic converters													
389	485	698	1485	2592	4683	8989	9204	8104	8289	9935	15810	21683	24245
Stitched leather seat parts													
1019	1227	1364	1729	1840	1915	2391	3184	2899	3113	2693	2549	2760	3282
Silencers/exhaust pipes													
76	168	241	488	593	377	282	340	327	407	492	407	1705	1900
Engine parts													
102	124	203	328	289	409	520	771	843	894	1000	984	1092	1888
Tyres													
213	288	330	463	589	682	781	1379	1278	1285	1183	1220	1196	1670
Engines													
9	86	192	233	53	76	88	623	564	701	781	1216	1080	1050
Automotive tooling													
153	281	322	236	253	362	441	363	529	383	332	272	520	800
Transmission shafts/cranks													
55	64	42	34	41	127	149	236	263	332	553	351	556	782
Road wheels and parts													
157	225	321	431	471	551	725	955	809	753	738	681	772	691
Gauges/instruments/parts													
19	28	29	21	50	56	77	119	128	142	161	184	248	582

Table 5.14: Major automotive component exports from South Africa, 1995 to 2008 (R million – FOB values) - continued

Axles													
3	3	7	26	34	63	81	129	119	140	201	375	273	381
Radiators													
66	98	93	93	88	72	70	199	191	162	220	365	368	343
Automotive glass													
43	70	105	111	146	171	241	328	307	311	359	321	295	328
Filters													
11	39	52	69	85	118	114	184	142	164	174	218	275	316
Steering wheel/column/box													
2	1	3	9	21	26	63	64	59	71	33	69	150	288
Lighting/signalling/wiping													
8	10	9	8	15	22	25	54	43	38	54	63	164	272
Ignition/starting equipment													
13	37	29	38	76	128	195	231	270	230	185	174	204	233
Wiring harnesses													
42	95	135	206	284	319	391	457	427	359	258	208	198	217
Shock absorbers													
27	46	49	62	74	81	75	21	6	5	5	1	12	188
Batteries													
52	61	88	79	68	100	116	150	106	114	75	83	115	168
Clutches/shaft couplings													
17	21	33	47	49	59	92	110	84	97	73	81	152	139
Brake parts													
25	35	48	88	88	95	118	215	198	146	120	120	138	124
Body parts/panels													
30	39	36	30	76	84	107	140	168	116	78	115	127	119
Gaskets													
4	6	8	7	9	16	19	38	37	43	36	45	70	103
Alarm systems													
10	13	24	79	55	65	75	86	65	55	55	81	97	91
Jacks													
13	20	24	13	23	24	26	35	24	23	10	18	60	88

Table 5.14: Major automotive component exports from South Africa, 1995 to 2008 (R million – FOB values) - continued

Gear boxes													
1	2	3	5	17	21	21	38	29	34	82	113	86	84
Seat belts													
-	-	1	3	16	45	71	63	57	49	61	60	62	49
Springs													
15	18	22	36	37	47	44	38	26	23	28	38	44	44
Air conditioners													
5	3	6	8	6	8	20	14	21	12	14	11	21	20
Car radios													
7	4	28	47	73	89	115	171	332	257	268	377	589	14
Seats													
5	2	3	37	44	49	2	6	6	3	4	7	8	8
Other parts of parts													
727	452	567	1346	1519	1700	2062	2938	2808	2982	3016	3435	3986	7158

Source: Automotive Industry Export Council, 2007, 2009

According to Black and Bhanisi (2006:17) these types of peripheral components offered the opportunity of generating large export volumes with limited investment. Global demand for catalytic converters was expanding rapidly as a result of environmental legislation while they also represent high value products because of their platinum content. Automotive leather was a labour-intensive industry. However, this strategy contributed little to the overall development of the industry because it could coexist with low-volume CKD assembly. It also did not contribute to reducing the cost of domestic vehicle production by reducing the cost of components being supplied to the domestic industry or by reducing assembly costs.

In 2008 the catalytic converter category's share of total exports comprised 55%. In 2006 catalytic converters' share of total automotive exports again increased sharply owing to the price increases in the platinum group metal, the depreciation of the rand, as well as the increase in demand for catalytic converters used in diesel trucks. The popularity of catalytic converters, the main purpose of which is to reduce harmful emissions from vehicles, is continuing to grow owing to increasingly stringent emission legislation in Europe and the USA. South Africa supplies approximately 15% of the

global market for catalytic converters (AIEC, 2007:11; Crawford, 2007a:27). Automotive stitched leather product exports have dropped dramatically since 2006. One reason for this reduction is that leather seat exports to Australia have all but stopped, as, from 2006 there have been no export incentives under the MIDP for South African leather seats to Australia. This has been coupled with a reduction in incentives to other markets, following Australia's threat in 2005 to challenge the MIDP at the WTO, which resulted in a restructuring of the MIDP (Venter, 2006a:8, 9).

The exporting link for the majority of automotive component manufacturers in South Africa consists of the South African-based OEMs and parent companies, in conjunction with first-tier multinational suppliers. The bulk of the automotive component exports take place via the OEMs. In the Minutes of the Monitoring Committee of the Motor Industry Development Council (MIDC) of 25 March 2009, ITAC reported that the distribution of IRCCs for 2008 comprised 85% to the OEMs, 14% to the Independent Importers and 1% to the automotive component manufacturers. ITAC is responsible for processing the export claims to issue the IRCCs. The 2008 NAAMSA annual survey to its members revealed that the OEMs exported R14,25 billion of in-house manufactured automotive components.

Automotive component manufacturers using South Africa's competitive advantages seek contact with outside partners for purposes of market access, technology, process knowhow, production rationalisation and other joint venture benefits. The diversification of automotive exports is important because it reinforces a longer-term export future for the industry. The South African domestic market generally is not large enough to generate sufficient economies of scale for world-class production; hence, exporting needs to be viewed as a necessary step in the rapid movement towards international competitiveness. Failure to rise to the challenge by finding new markets and products could result in stagnation of exports. It is essential that focused activities, both ongoing and through projects, be established and maintained. The current global economic environment is dominated by intense competition for export markets, investment and technology. This makes it important to gain and maintain access to these markets (AIEC, 2007:26).

In many cases, domestic firms have been required to acquire a foreign technology partner, which has eased access to foreign markets. OEMs strongly prefer that the domestic automotive component manufacturers establish an alliance with established multinational component manufacturers. This is intended to bring the technology to the market because of the importance the OEMs place on long-term relationships built on hard-earned trustworthiness. The automotive industry's high level of technological sophistication, its globalised nature and the high barriers to entry that are generally evident, militate against the small owner-managed operations. Even when production remains in the domestic market, design and contract allocation are increasingly global (Humphrey & Memedovic, 2003:46). Multinational control of international marketing networks makes independent exporting extremely difficult (Barnes, 1999:15; Black 2001:11).

Most of the South African automotive component companies have established links with European-based companies. This is largely because the German OEMs encouraged their suppliers to form business arrangements with South African companies when they instituted their export programmes. The EU has extensively displaced its own production to lower-cost developing countries such as South Africa. The domestic industry's integration into the global value chains of parent companies increases the expansion of its exports and the degree to which it improves international competitiveness. In this regard the integration of component suppliers in the export value chain has been the great success of the MIDP, as the benefits of the programme have started to trickle down to domestic automotive component manufacturers (AIEC, 2008:10).

Table 5.15 reveals that the reach in respect of the number of destinations of the exports is increasing. Export destinations for values in excess of R1 million have increased from 62 in 1995 to 135 in 2008 (AIEC, 2009:10–13). The main destinations for South African automotive components remain first-world markets with the expanded EU accounting for R32,3 billion or 73,4% of total automotive component exports of R44,1 billion in 2008. However, diversification into new emerging markets is a continuing trend and underlines the automotive industry's competitiveness drive and a widening of the country's traditional trading base (AIEC, 2009:5, 20).

Table 5.15: Top destinations of South African automotive component exports, 1995 to 2008 (percentage of the total value)

1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
%	%	%	%	%	%	%	%	%	%	%	%	%	%
Germany													
45,0	47,1	48,9	49,1	46,1	41,0	37,4	37,5	34,5	35,9	33,3	29,3	28,5	33,1
Spain													
3,6	2,7	1,7	4,7	4,3	3,4	1,8	3,4	6,8	8,3	9,7	11,5	10,4	9,8
UK													
6,4	8,0	9,5	9,1	10,3	9,5	10,7	9,5	7,9	9,0	9,6	9,3	7,8	8,4
USA													
4,2	5,0	6,4	6,1	10,0	9,5	12,1	10,5	8,4	7,2	9,5	9,7	8,0	7,7
France													
0,7	0,8	2,1	1,3	1,6	4,4	7,5	7,6	8,8	7,9	6,6	7,0	7,8	5,8
Belgium													
8,0	6,2	4,6	5,2	5,6	6,7	5,5	5,1	4,4	3,1	3,1	4,4	5,0	5,2
Poland													
-	-	-	-	-	0,1	0,3	0,4	0,5	0,6	1,5	2,9	2,7	3,2
Netherlands													
1,9	3,0	2,4	1,6	1,9	1,3	1,3	2,1	2,8	2,8	1,9	1,8	2,4	2,3
Brazil													
0,7	1,4	1,3	0,7	0,7	0,4	0,4	0,3	0,6	0,5	1,0	0,8	0,9	1,6
Japan													
0,3	0,2	0,2	0,8	1,0	0,9	1,7	3,2	2,6	2,3	1,2	2,4	2,0	1,6
Other													
29,2	25,6	22,9	21,4	18,5	22,8	21,3	20,4	22,7	22,4	22,6	20,9	24,5	21,3
EU													
67,7	69,7	70,7	73,8	73,6	69,8	70,5	70,8	69,9	71,2	71,4	71,8	71,0	73,4
NAFTA													
4,7	5,3	6,0	7,7	10,3	10,1	12,5	11,1	8,9	8,4	11,1	11,0	12,5	8,6
AFRICA (incl. SADC)													
13,2	14,6	13,9	10,6	9,2	6,8	7,1	8,0	7,9	7,3	6,6	6,0	7,2	7,3
SADC													
10,2	13,5	12,7	9,0	7,6	5,6	5,8	6,2	5,8	5,5	4,6	4,3	5,1	5,5
MERCOSUR													
4,3	3,7	2,2	0,8	0,9	0,4	0,5	0,4	0,7	0,6	1,0	0,9	1,1	1,8

Source: Automotive Industry Export Council, 2007, 2009

The domestic automotive industry's export performance is in line with the MIDP's objective of an improved sectoral trade balance, which will be discussed next.

5.5.3 TRADE BALANCE

The overall picture in respect of the South African automotive sector's trade balance under the MIDP reflects that exports have increased very rapidly but that imports have expanded rapidly as well. Understanding the trade balance of the automotive sector underpins any policy attempts at improving export performance, or reducing the dependence on imports. By examining this data, it is possible to intensify important export markets for the industry and also determine how well the industry competes internationally (DTI, 2004:48; Black & Bhanisi, 2006:1).

In 2007, total automotive exports comprised 13,8% of total South African exports – up from 4,1% in 1995 – representing almost a fourfold increase and indicating the sector's increasing export propensity (AIEC, 2008:13). The researcher, in his position at the DTI between 1995 and 2004, established the DTI as the official source of information on the automotive industry's trade balance. Since joining NAAMSA in 2005, he has established the AIEC as the official source. These data are produced by processing Customs and Excise statistics extensively for the eligible products under the MIDP. The automotive industry's trade balance, comprising vehicle and automotive component import and export values, are used by Econometrix (Pty) Ltd to calculate the automotive sector's contribution to the country's GDP annually.

Table 5.16 reveals that from the introduction of the MIDP, until 2007, automotive component exports remained the key driver behind the automotive industry's trade balance. In 2008, however, owing to the record vehicle exports of 284 211 units, the vehicle export value exceeded the automotive component export value for the first time under the MIDP. When the MIDP was introduced in 1995, imports of CBUs and automotive components amounted to R16,4 billion. In 2008, this figure increased to R108,9 billion, in excess of a six fold increase. Over the same period, exports of CBUs and automotive components increased more than twenty-two fold, from R4,2 billion to R94,2 billion. In 1995 vehicle exports comprised R0,9 billion or 21% of total automotive exports of R4,2 billion and in 2008 this figure increased to R50,1 billion or 53% of total automotive exports of R94,2 billion.

Table 5.16: Trade balance for the automotive industry 1995 to 2008

	Imports (Rb)	Exports (Rb)	Forex usage (Rb)
1995	16,4	4,2	(12,2)
1996	19,2	5,1	(14,1)
1997	17,2	6,6	(10,6)
1998	19,9	10,1	(9,8)
1999	22,8	14,8	(8,0)
2000	29,7	20,0	(9,7)
2001	38,0	30,0	(8,0)
2002	50,2	40,1	(10,1)
2003	49,8	40,7	(9,1)
2004	58,0	39,2	(18,8)
2005	72,5	45,3	(27,2)
2006	88,5	54,7	(33,8)
2007	102,2	67,6	(35,6)
2008	108,9	94,2	(14,7)
2008	108,9	94,2	(14,7)
CBUs	31,2	50,1	18,9
Original equipment components	48,1	44,1 (combined)	(33,6) (combined)
Aftermarket components	29,6		
2008	108,9	94,2	(14,7)
EU	54,4	40,7	(13,7)
NAFTA	8,1	18,3	10,2
AFRICA (incl. SADC)	0,9	12,1	11,2
MERCOSUR	4,6	0,8	(3,8)
OTHER	40,9	22,3	(18,6)

Source: Automotive Industry Export Council 2007, 2009

The widening of the automotive industry's trade deficit during the 2006 calendar year was primarily due to the strong rand, coupled with record growth in domestic new vehicle sales and a buoyant economy. The strength in the exchange rate rendered imports more cost competitive and encouraged the importation of CBUs. The record

demand for vehicles in the domestic market also translated into higher imports of original equipment components used in the manufacture of motor vehicles. Despite a consolidation in new vehicle sales in 2007, the trade deficit widened further as the domestic industry remained at a high sustainable level. In 2008 the trade deficit narrowed to its lowest level since 2004. The significant decline in the domestic new vehicle market, coupled with record export growth in vehicles and automotive components, resulted in a substantial narrowing of the industry's trade deficit.

Despite the significant increase in exports of CBUs and automotive components since 2005, the South African automotive industry has remained a net user of foreign exchange. This was as a result of the importation of products not manufactured in the relatively small domestic market. Capital-intensive components such as engines, gearboxes and interior electronic components are mainly imported and the remainder sourced in the domestic market. The industry's reliance on global designs, technologically sophisticated plant and machinery and high-value automotive components contributes to the large outflow of foreign exchange. Each vehicle contains some 10 000 components, which constitute the heart of the industry. A significant percentage of these components are imported. Since OEMs are exporting CBUs, they need access to automotive components at world prices (Damoense & Alan, 2004:264; Black & Bhanisi, 2006:1; Black, 2007:87).

In line with many other developing countries, deviations in the currency of trading partners will consequently impact on domestic operations. According to Lamprecht, Executive Manager of NAAMSA (as cited by Cokayne, 2008:30, 31), the trade deficit was not just an automotive industry phenomenon, but, as a leading economic indicator, a reflection of the booming total domestic economy in 2006. In 2007 and 2008 a weaker rand impacted positively on exports but negatively on imported prices (Lamprecht, 2004:15; AIEC, 2007:6; NAAMSA, 2009a:16).

As tariffs are reduced, imports can be expected to gain a larger share of the domestic market. Nominal tariffs for CBUs will decline gradually up to 2012. A key strategy of the OEMs operating in South Africa is to expand market share. The OEMs seek to achieve this through a combination of domestic production and vehicle imports. The MIDP encourages the OEMs to import low-volume models not manufactured in the

country and concentrate on the production of relatively high-volume models. In rationalising the vehicles and components it manufactures, to achieve higher volumes from a much smaller range of products, industry also has to rely on increasing imports to fill the domestic supply gaps. The Minutes of the Monitoring Committee of the MIDC of 25 March 2009 revealed that the local content of the top selling passenger cars and light commercial vehicles of South African manufactured vehicles ranged between 43 and 84% in 2007 based on the DTI's annual OEM survey. As a result of the imports and the progressive lowering of import tariffs, the percentage of total new vehicle imports in relation to domestic new vehicle sales increased from 6,6% in 1995 to 47,7% in 2008 (Black & Bhanisi, 2006:16, 17; NAAMSA, 2009b).

On the automotive component side, a large portion of the automotive imports comprises original equipment components, which are subsequently exported as CBUs after significant value adding. The automotive components manufactured in South Africa also include imported elements. The automotive components manufactured for exports hence experience some compensating savings in respect of the cost of the imported subcomponents and materials resulting from an appreciation of the rand. The opposite, however, applies when the value of the rand depreciates. The Minutes of the Monitoring Committee of the MIDC of 25 March 2009 revealed that the local content of automotive components exported in 2008 comprised 80% compared to 76% in 2007**.** The variety of available models also influences the nature of the South African vehicle parc, which is changing, and this has profound implications for the aftermarket. Features now include complex sensor systems to trigger safety features, and engines and transmissions that are managed by computerised systems. In addition, the ageing South African vehicle parc calls for more replacement parts for passenger cars and trucks, which need to be imported (DTI, 2004:34).

The strong focus on local content and the development of the local automotive component supplier industry is important because it will reduce the risks associated with the volatile exchange rates the domestic automotive industry had to cope with over recent years. The OEMs see increasing local content levels in South African manufactured vehicles as a prerequisite to establishing a more sustainable productive base. Progress up to 2007 has been mixed, although high volume vehicle projects have brought clear advantages to the supplier industry (Cokayne, 2008:26).

South Africa's foreign trade has become more geographically diverse. Not only are new markets opening up for South African companies, but new sources of necessary industrial imports are also appearing (Trade Secrets, 2004:76). The South African automotive industry looks set to generate increased foreign exchange given currency stability that enhances future planning as well as the ability of the domestic industry to penetrate new markets, export new products and exploit the opportunities presented by increasing trade arrangements. Exports of CBUs are projected to continue their high trend on the back of ambitious, new export programmes by all seven OEMs, and in particular large-scale export programmes by three OEMs. These developments should result in a substantial increase in exports of South African manufactured motor vehicles in the years ahead. All other things being equal, this will contribute to a continuous narrowing of the automotive industry's trade balance in future years (DTI, 2004:48; NAAMSA, 2009a:16).

The growth prospects of the automotive sector impact on the financial performance of the sector as well, which will be discussed next.

5.5.4 FINANCIAL PERFORMANCE

The DTI monitors the profit performance of the South African OEMs in terms of the MIDP, by means of its annual OEM survey. Table 5.17 reveals the profit performance, before interest and tax, of the eight domestic OEMs from 1995 to 2007.

The South African OEMs' earnings for passenger car and light commercial vehicle production before interest and taxation, expressed as a percentage of their total turnover, including parts and accessories for 2007 was 4,8% compared to the 6,9% in 2006 (NAAMSA, 2009a:18).

The high profits by the eight OEMs recorded in 1995 resulted from the 24% increase in sales volumes experienced during that year as well as the once-off benefit arising from the change from an excise-based programme (Phase VI) to the import-duty based MIDP (DTI, 1997b:9).

Table 5.17: OEM industry profitability in nominal terms

Year	R million
1995	2032
1996	520
1997	(547) loss
1998	109
1999	79
2000	1285
2001	3717
2002	4102
2003	4256
2004	6041
2005	6924
2006	8744
2007	6695

Source: Department of Trade and Industry; National Association of Automobile Manufacturers of South Africa

Trade liberalisation has forced many South African companies to adapt to both intensified rivalry and new forms of competition. Growing import competition in the domestic market and that of low-cost products sourced from a global pool are the order of the day. Furthermore, it takes time to establish new relationships, to establish contacts in new markets, to engage new technology, to set up new production facilities, to train people and then to start supplying (DTI, 1997b:11; AIEC, 2007:8). The main reasons for the depressed profit levels from 1996 to 1999 were increased competition between the OEMs and the decline in sales volumes and industry revenues. In addition, pressure from imports has led to shrinking margins. Owing to contributing factors such as the small vehicle incentive (SVI), the major domestic market growth since 1996 has occurred in the small vehicles segment, which internationally is less profitable (DTI, 1998:15).

The significant increase in OEM profitability from 1999 to 2000 resulted from higher export volumes, increased values of exported units largely attributable to the depreciation of the rand, higher vehicle price increases and a recovery in the domestic market (Business Map Foundation, 2003:1–4). The successful vehicle-exporting

OEMs have largely determined industry profitability since 2000 (DTI, 2001:27). South Africa has a good ability to build plants much more quickly and at lower costs than its competitors and to operate profitably with smaller volumes. The combination of existing, under-utilised infrastructure and the benefits of the MIDP increasingly attracted automotive investor interest into South Africa (DTI, 2003b:35). In 2004 the increase in new vehicle sales in the domestic market as well as stable new vehicle prices and lower costs of imported parts, resulting from a strong rand, contributed to the expanding profitability margins – this despite a marginal decline in vehicle exports. In line with the benefits of economies of scale, the OEMs were able to increase productivity and cut costs per unit on an ongoing basis. Many South African-based OEMs outperformed their OEM global parent companies.

A phenomenon of the South African car market is that the luxury car market ratio is substantially higher than in other countries: most of these, higher-margin, less price-sensitive premium cars are financed and bought by companies, which contribute to the OEMs' profitability. From 1999 onwards the luxury vehicle market in South Africa comprised between 25 and 35% of the domestic new vehicle market and in percentage terms is seven to eight times bigger than those in other countries (De Vos, 2003:63–66). BMW SA had the highest market share of any BMW company worldwide in 2004 and has established itself as the fastest growing BMW plant in the world. The BMW facility has moved from being a world-class operation to the number one position in the Southern Hemisphere in terms of technical advancement (Kok, 2003:4; Czernowalow as cited by Lamprecht, 2006a:99).

Since investment decisions are based on sound financial returns, the investment intensity in the domestic automotive sector will be discussed next.

5.5.5 INVESTMENT INTENSITY

Foreign investment only comes in a stable environment. Without foreign direct investment and trade the South African government's growth and employment goals will not be achieved. Government has established investment promotion agencies such as Trade and Investment South Africa to administer a range of incentive schemes. It has also signed the WTO's Agreement of Trade Investment Measures (TRIMS), ensuring equal treatment of national and foreign investors and free

repatriation of capital and dividends, as well as more than 30 bilateral investment treaties (Gelb, 2004:41–45).

A range of industrial support measures have been implemented to enhance the competitiveness of South Africa's industrial base. To this end government has set in place incentives for value-added manufacturing projects, support for industrial innovation and improved access to finance. Furthermore, government created an enabling environment for small and medium enterprises (SMEs), established Industrial Development Zones (IDZs), created export incentives and promoted competition and consumer protection. The South African government supports both domestic and foreign investments. The supply-side measures and incentives are aimed at ensuring that domestic companies source their inputs more effectively, market more effectively and manufacture more effectively (DTI, 2007b:13).

However, where South African operations incur significant cost disadvantages is in the area of inbound and outbound logistics. The high costs are a function of high transport costs and long distances to foreign markets as well as high levels of imported content. In 2006, the then Minister of Trade and Industry, Mpahlwa, indicated that the package of supply-side measures as a whole were of insufficient scale to restructure the manufacturing sector adequately to deal with the harsh winds of trade liberalisation. Several industry role-players also stated that there is an urgent need for increased investment incentives from government in order to compete with the scale of incentives provided in other developing countries (Brown & Mde, 2005; Black & Bhanisi, 2006:20; Venter, 2006b:17).

The key to continued investment in South African and the automotive industry in particular will be subject to government planning regarding the replacement of the MIDP, in the form of the APDP, as well as a range of other investor-friendly initiatives. South African OEMs need some form of support as there is fierce competition between countries in securing vehicle manufacturing contracts. In Eastern Europe 40 to 45% of vehicle manufacturers' investments are returned to them in different ways over time. New models will provide the domestic market with an opportunity to increase production if an OEM's sales are growing worldwide (Venter, 2006f:7). Countries such as South Korea offer investors a three-year import duty exemption for

capital goods. Turkey offers a 100% corporate tax exemption until 2012, and then a 20% rate thereafter. In China companies pay no tax for the first two years that they are profitable (Venter, 2006f:16, 17).

The South African automotive industry's aim is to become an investment destination of choice. In this regard modernisation and upgrading of key elements are required to achieve international competitiveness. Up to the middle of 2006 interest rates were at historic low levels, thus reducing the cost of investments. The strong rand enhances investments and creates jobs, among other benefits. A weak currency does not attract foreign or domestic investment, as investors have to make high returns in a weak currency environment to compensate for potential currency losses. The need for higher returns often renders the projects unviable. With the lower inflation and interest rates decreasing the cost of capital, South Africa is heading towards a more favourable long-term investment environment. The benefits of this could be long-term fixed investors and the removal of the incentive for short-term speculative investment as currency stability matters more than the strength or the weakness thereof (Lamprecht, 2006a:101).

The capital investments by the OEMs will be discussed next.

5.5.5.1 Capital investments by the OEMs

In 1996 Delta Motor Corporation was the first OEM to invest under the MIDP (DTI, 1997b:10). Significant investment programmes for new model introductions followed when Ford Motor Company, Nissan, Toyota, Fiat and General Motors took up equity stakes in domestic operations.

Table 5.18 reveals that the capital expenditure by the OEMs in 2008 amounted to R3,3 billion. During 2005 and 2006 the strong rand contributed to lower costs of imported capital equipment. Significant investment programmes driven by export plans have been implemented by all the OEMs. Since the commencement of the MIDP capital expenditure by the OEMs from 1995 to 2008 amounted to R33,2 billion (NAAMSA, 2009a:40).

Table 5.18: Investment expenditure by the OEMs in South Africa, 1995 to 2008 (R million)

	Product, local content, export investments and production facilities	Land and buildings	OEM support infrastructure (including research and development/engineering/technical)	TOTAL
1995	734	35	78	847
1996	996	46	129	1171
1997	1024	129	112	1265
1998	1144	60	138	1342
1999	1314	82	115	1511
2000	1311	110	141	1562
2001	1800	33	245	2078
2002	2311	152	263	2726
2003	1989	142	194	2325
2004	1816	130	274	2220
2005	2805	512	259	3576
2006	5058	758	399	6215
2007	2459	382	254	3095
2008	2808	329	153	3290

Source: National Association of Automobile Manufacturers of South Africa

The motivation for parent companies to add plants in developing countries is to increase the competitiveness of their global operations (DTI, 2002a:38). Investment into infrastructure and production capacity has arisen directly as a result of the export opportunities offered by the MIDP (Mawson as cited by Lamprecht, 2006a:101). The automotive industry was recorded as being the second largest recipient of foreign investment of any sector between 1994 and 1997, indicating the extent to which the MIDP has leveraged investment and access to export markets. Annual foreign direct investment (FDI) in the automotive industry between 2000 and 2005 more than doubled from the R1,5 billion to R3,6 billion as the largest attractor of FDI in manufacturing (DTI, 1997a:11; Humphrey & Memedovic, 2003:37; DTI, 2007a:8).

According to Black (2007:102) rising production efficiencies, pressure on local margins as well as clear government policy are necessary to force the hand of the OEM parent company to invest. In South Africa the OEMs, as a result of rationalising operations in line with the MIDP objective of higher model volumes, are therefore in a better position

to encourage investments by first-tier suppliers as the MIDP reduces complexity. High volume vehicle exports are not just a function of international competitiveness but also depend on the global strategy of the OEM parent company. The global strategies of the OEM parent companies include their desire to optimise global production capacity in the context of the policy regime prevailing in each location. The OEM parent company needs to take the major strategic decision to allocate specific markets to the home country manufacturer and then follow this up with the required investments.

Investment follows trade (Creamer, 2006b:73). The R6,2 billion invested by the OEMs in 2006 was more than the totals of the previous two years combined. This amount included the investment by Toyota SA in doubling its vehicle production to accommodate its major light vehicle export programmes. It has taken the industry as a whole a long time to bring operations up to levels that inspire confidence in multinational OEM parent companies with regard to long-term capability to meet quality, cost and delivery standards. Government will continue to support the automotive industry, notwithstanding the industry's continuous trade deficit under the MIDP. The lifecycle for most modern vehicles ranges is between six and eight years, and no one will commit to that length of time without guarantees. The 2005 MIDP review dragged on much longer than expected, impacting on possible loss of investments. Several companies, however, have committed to light vehicle export programmes that take them well beyond 2012 (Furlonger, 2006a:25).

The minutes of the Monitoring Committee of 25 March 2009 (MIDC, 2009) reveal that, since its introduction in 2000, the Productive Asset Allowance (PAA) has attracted 85 applications to the value of R33,48 billion up to 25 March 2009 of which applications to the value of R29,88 billion have been approved. The objective of the PAA is model rationalisation. The PAA, however, excludes the medium and heavy commercial vehicle sector as well as the automotive component sector investments not dedicated to model rationalisation. Alternative generic investment incentives, however, are also available from the DTI. These investment incentives are all mutually exclusive, which means that only one may be chosen.

The increase in production volumes owing to CBU exports provides opportunities for component suppliers to increase their levels of production, as well as to attract new

automotive component and subcomponent manufacturers, as the viability to manufacture improves. The big advantage of the MIDP is the long-term certainty for the investment environment as it is generally regarded as a key requirement by business in taking investment decisions (DTI, 2004:59).

The investment behaviour of OEMs is influenced by a number of industry-specific factors. The importance of economies of scale means that increased competitiveness places some pressure on firms to increase production as a way of reducing unit costs. This in turn may require that the parent company creates export opportunities for the South African subsidiary and invests accordingly. Investments have to be enlarged or firms face the prospect of losing market position and eventually becoming unviable. Hence, to stay in the game the stakes have to be increased. Key investment decisions made outside South Africa by global parent companies indicate that short-term profitability in a minor South African subsidiary is likely to be a lesser consideration. Medium-term market prospects and strategic concerns, relating to market share and the requirements of global production networks, are of higher importance (DTI, 2004:57).

The integration into the global group of the South African OEM subsidiaries provides opportunities for business, produces synergies in several areas and accelerates the exchange of knowledge. These all will enable the domestic subsidiary to be more competitive in the global automotive environment (DTI, 2004:59). The developments by the OEMs have had a direct impact on the composition of the automotive components industry as well, with multinational component manufacturers establishing greenfield operations or purchasing existing operations (Barnes & Black, 2004:6).

The investments by the automotive component manufacturers will be discussed next.

5.5.5.2 Investments by the automotive component sector

In 2007 eight of the top 10 global automotive component companies were represented in South Africa as subsidiaries or joint ventures with South African based companies and include, in their 2007 ranking order, Denso Corporation (1), Robert Bosch (2), Magna International (3), Continental (4), Delphi Corporation (5), Johnson Controls (7), Faurecia (8) and Lear Corporation (9) (AIEC, 2008:96).

Given the importance of developing an integrated domestic supply chain to increase local content, and hence reducing logistics costs, investments by the automotive component suppliers are also important. According to Black (2007:189) the OEMs as well as independent vehicle importers have played a major role as conduits between domestic automotive suppliers and the international market in four ways. Firstly, they have arranged large export contracts for component suppliers by facilitating access to their global networks. Secondly, they have brokered new investment by encouraging foreign suppliers to establish joint ventures with domestic firms or to set up greenfield plants. Thirdly, they have brought in new technology, and fourthly they have frequently accelerated the transfer of industry best practices in production organisation to their suppliers. Automotive capital expenditure has increased annually, but despite these investments increases in R&D have been low. Domestic suppliers rely on licensed technology as the low volume production does not justify large investments in R&D capability in the domestic market. In general the domestic automotive industry remains a technology-taker. The sector's greatest benefits are therefore evident in technology transfers enhancing capacity, quality and standards, which make domestic industry more internationally competitive. Investment also facilitates Black Economic Empowerment (BEE) development, an important objective of government policy. This mainly comprises lower-tier supplier involvement, following outsourcing of certain activities and subcomponents and hence the potential for employment generation (DTI, 2001:29).

Since sustainable employment is another one of the MIDP's objectives, the automotive employment levels in South Africa since the introduction of the MIDP in 1995 will be discussed next.

5.5.6 EMPLOYMENT LEVELS

The automotive industry has a high multiplier effect owing to the creation of opportunities in automotive and related areas and has direct linkages with a large number of support services and SMEs. Employment ratios vary from country to country but generally for every worker in the manufacture of a motor vehicle there are at least two or more employed in used vehicle sales, servicing and repair. The MIDP encourages the South African automotive industry to become more internationally

competitive; hence, the need to secure world-size contracts implies that automated business drives job reduction (DTI, 2003b:46).

Table 5.19 reveals that automotive industry employment levels from 1995 to 2008 have remained relatively stable. The employment data are monitored regularly by NAAMSA, NAACAM, the tyre industry and the retail, distribution and servicing industry, supplemented with research findings of independent studies.

Table 5.19: South African automotive industry employment, 1995 to 2008 (number of employees)

	Assembly industry	Component industry	Tyre industry	Motor trade	Total
1995	38600	65500	11000	178000	293100
1996	38600	65500	10000	180000	294100
1997	37100	69100	9500	180000	295700
1998	33700	69700	9100	170000	282500
1999	32000	67200	6670	175000	280870
2000	32300	69500	6575	180000	288375
2001	32700	72100	6300	182000	293100
2002	32370*	74100	6000	185000	297470
2003	31700*	75000	7200	191000	304900
2004	31800	74500	7200	194000	307500
2005	34300	78000	6800	198000	317100
2006	37900	78000	6500	198000	320400
2007	38300	81000	6900	200000	326200
2008	35900	69000	7000	195000	306900

*The leather division of BMW SA was sold effectively on 1 July 2002 and, as a result, the employment numbers, involving over 1 000 employees, are no longer reflected in terms of the vehicle manufacturing industry but under the automotive component industry.

Source: National Association of Automobile Manufacturers of South Africa; Bentley West (2004), Study to explore the retention and creation of employment in the South African automobile sector.

With the main thrust of the MIDP being to improve the international competitiveness of the industry, it was realised that it would be difficult to create employment in the automotive sector. Hence, the emphasis was rather on maintaining employment at the levels prevailing at the start of the MIDP (ITAC, 1995:13). High levels of employment relative to the number of vehicles produced meant that existing levels would only be maintained with an increase in production (DTI, 1997b:6).

The OEMs generally have had a high degree of labour input to production in South Africa, which has meant a high degree of flexibility, as most OEMs had spare capacity and could increase production without an increase in employment levels. During the calendar year 2006, 3 942 new jobs were created in the new vehicle manufacturing industry, an improvement of 11,2% on the 35 137 industry positions at the end of 2005. The October 2006 industry employment level of 39 412 represented the highest aggregate industry level over the ten years up to 2006. The main reason for the significant employment growth in the vehicle manufacturing sector was the increase in production associated with higher levels of sales of domestically produced vehicles and particularly the ramping up of major vehicle export programmes (NAAMSA, 2007:17). During 2008 the magnitude of the extremely difficult operating environment, characterised by both sharply lower domestic new vehicle sales resulted in a decline of 2 566 jobs compared to 2007. The knock-on effects in the automotive component sector and the retail sector were also evident in job losses in these sectors (NAAMSA, 2009b).

Globalisation has led to a restructuring and reshaping of domestic operations. The industry has had to deal with obstacles such as the relatively high costs associated with production of low volumes, cost of resources such as steel, aluminium and platinum, the reliance on foreign technology as well as the low research and development budgets (Damoense & Alan, 2004:252, 264). In addition, the drive towards higher productivity and new manufacturing techniques has resulted in full-time jobs being converted into subcontracting, outsourcing, in-sourcing, as well as temporary and casual workers, which inhibited growth in employment (DTI, 2003b:46). Production and productivity gains have also been realised by the OEMs. This has been mainly driven by improving production efficiencies, higher CBU exports and economies-of-scale benefits. However, the positive output growth has helped to marginalise employment losses in the sector.

In the component and tyre sectors the impetus has been provided through the expansion in automotive component production to supply higher levels of domestically manufactured CBUs as well as the increase in exports of a broad range of components. According to KPMG's 2006 Global Automotive Survey, 5,5 jobs are created in the economy for every job created in the automotive component industry

(Crawford, 2007a:39). Employment deviations, in areas such as the tyre industry, resulted from investments and restructuring by parent companies to pull the South African manufacturers into their global supply chain. However, growth in exports indicates that those investments have borne fruit (DTI, 2000:20, 21). The increase in the retail motor trade employment levels since 1995 is largely aligned with domestic market growth and increased new brand availability requiring dealerships in South Africa.

Employment increases in an intensely competitive environment are also subject to labour costs, which will be discussed next.

5.5.6.1 Labour costs

Labour costs in the South African automotive sector compete favourably with the developed nations; specifically those that the South African industry has close ties with (DTI, 2004:77). Union–employer partnership focuses on results and quantum improvements in productivity and flexible skills. According to NAAMSA (2005:25), direct labour costs in the vehicle manufacturing industry decreased by 35% over the eight years up to 2004. The increased focus on manufacturing for export, being more capital and skills intensive, has led to a rise in demand for skilled labour. In South Africa it was found that flexible production lines with lower volume production, using more human workers instead of automating with robots, have advantages without compromising quality. In this regard the highly prestigious JD Power Gold Plant Quality award won by BMW SA in 2002 reiterates the case in point. Raising domestic skills levels and generating employment through more labour-intensive assembly practices represent tangible economic and social long-term benefits (DTI, 2004:72).

The three-year wage agreement signed in the assembly industry in 2004, without any labour unrest for the first time ever, was indicative that the future of the automotive business in South Africa is dependent on its workforce and on satisfactory relations between the shop floor and management. Commitment and constructive cooperation by all role-players is imperative to ensure sustained export business (DTI, 2004:74). Weak links cannot be afforded in the automotive supply chain and in this regard productivity improvements, as will be discussed next, are a key ingredient.

5.5.6.2 Productivity

Automotive firms under the MIDP in general plan to upgrade productivity by improving production efficiencies, expanding exports and increasing investment. There was much greater emphasis on a positive supply response in expanding exports and new investment than on reducing employment, curtailing operations or sourcing subcomponents internationally. The restructuring process, therefore, looked to be centred on efforts to improve in-house productivity. This includes work organisation by attempts to expand production volumes in a more focused range of products through exporting and to upgrade plant and equipment, including increased use of automation (Black & Bhanisi, 2006:15).

Since the process design is done in South Africa and the product design done overseas, firms have noted that they have to improve their process capabilities as a precondition for continued supply into the global automotive industry. Labour productivity, measured in terms of the number of vehicles produced per annum per employee, improved considerably from 10,2 vehicles in 1999 to 15,5 vehicles per employee in 2006. The number declined to 15,0 vehicles per employee in 2008 owing to the significant decline in new vehicle sales in the domestic market with relatively high levels of employment. Skilled personnel represent a critical element in promoting international competitiveness. Improvements in domestic productivity efficiencies have come mainly as a result of higher specialisation and economies-of-scale benefits via production volume increases in exports as well as increased levels of automation (NAAMSA, 2007:17; NAAMSA, 2009a:17). Despite the productivity increase, the relatively low levels of automation contribute to South Africa's competitive advantages. These relate to its flexibility, diverse range of products, price competitiveness, quick changing of the configuration of tooling, as well as processes, according to need. In a 2005 World Bank/Department of Trade and Industry study with comparable middle-income countries, it was found that South Africa's productivity was three times higher than China's (Mittner, 2005:23).

Holweg and Pil (as cited by Black, 2007:142), argue that having smaller scale operations in conjunction with large-scale facilities gives a firm the flexibility to be creative. They cite the case of German vehicle manufacturers in South Africa which have been able to reduce shipping distances to Japanese customers by using their

small-scale South African facilities. These small-scale operations also have the advantage of being excellent locations to seek out and develop top managerial talent and can be established in a wider range of locations because of their smaller labour requirements.

Training is imperative to achieve higher skills and productivity levels and this aspect will be discussed next.

5.5.6.3 Training

The expenditure on training by the OEMs as monitored by the DTI's annual OEM survey revealed that the total nominal expenditure on training by the OEMs between 1995 and 2007, mainly to accommodate export programmes, amounted to R1 393 million (NAAMSA, 2009a:51).

BMW SA's training expenditure in 2004 was double the group's international average as a proportion of salaries and wages (DTI, 2004:71). The amount spent by industry is a clear indication of the export focus and participation in global markets. The component sector followed similar trends in expenditure on training. Since the global trend by OEMs is the abdication of power to suppliers in respect of ownership for product development, co-designing and research, the component sector is regarded as the leading manufacturing value-added industry in the world (DTI, 2002:28). The continuous global pressures place escalating demands on suppliers in terms of investment in training owing to the massive technological advances in vehicles. Attempts by the OEMs are all focused on price competition and in this regard vehicle affordability, as discussed in the next section, is a major focus area.

5.5.7 VEHICLE AFFORDABILITY

According to Black (2001:4) trade liberalisation tends to reduce prices of liberalised products relative both to other goods in the domestic market and to similar commodities internationally. The orthodox rationale for tariff reductions resulting from globalisation is to realign relative prices, reduce input costs and correct anti-export bias. Although the reduction in relative prices would be in itself to the detriment of the sector, domestic demand could increase, influenced by the lower prices. Furthermore,

structural changes may reduce production costs, growing international integration could impact positively on trade and investment and productivity enhancements may be influenced by the level of investment and growing competition.

Improved vehicle affordability is one of the objectives of the MIDP. Affordability is described as the ratio linking the price of a commodity to the available spending power (Zhuwakinyu, 2003:7). Directly comparing domestic and international vehicle models and prices presents some difficulty as vehicle performance has improved and new safety features have been added over time. Comparing selected South African retail car prices with those of the UK in 2002, using an average exchange rate for the year, showed that by and large cars in the UK were sold at a premium to those in South Africa. Some South African models, however, were more expensive than in the EU countries. This was the case specifically for models imported into South Africa (Business Map Foundation, 2003:1–4).

In 2006 the Competition Commission found that, in its sample of six cases studied, vehicles were on average 14% more expensive than in Europe. The comparison incorporated adjustments for differences in vehicle specifications, tax rates, tariff rates, transport costs and motor plans. Two vehicles in the sample were, however, cheaper locally than in a number of EU countries. The report concluded that the MIDP had benefited the industry by enhancing output, exports and employment but it was not clear that consumers had received their fair share of the benefits of the MIDP. Stressing that one stated objective of the MIDP was to provide high quality and affordable vehicles and components to domestic and international markets, it questioned whether this had been achieved.

According to NAAMSA, the industry had some reservations about the methodology and assumptions used by the Competition Commission in the comparative pricing study. The sample size and composition was not sufficiently representative to arrive at valid general conclusions. The Commission also assumed that all OEMs did not pay any duty, which was incorrect. The analysis did not make any allowance for the relative size of the EU and South African markets and the impact of this on costs and prices. In addition, it did not benchmark the products of independent importers, contained no comparison with other developing countries, and the impact of historical

exchange rates and inflation differentials between South Africa and the EU was not been taken into account. The Commission's sample size represented less than 0,6% of the model vehicle derivatives in South Africa (Cokayne, 2006:28, 29).

Figure 5.4 reveals the price movements of CBUs compared to the consumer and production price indexes. Over the period 1995 to 2008, average annual new vehicle prices in 11 out of the 14 years under the MIDP were below increases in the annual average South African inflation rate. The exception represented the years 1999 to 2002 during which, as a result of severe exchange rate weaknesses, new vehicle prices were substantially above the domestic inflation rate.

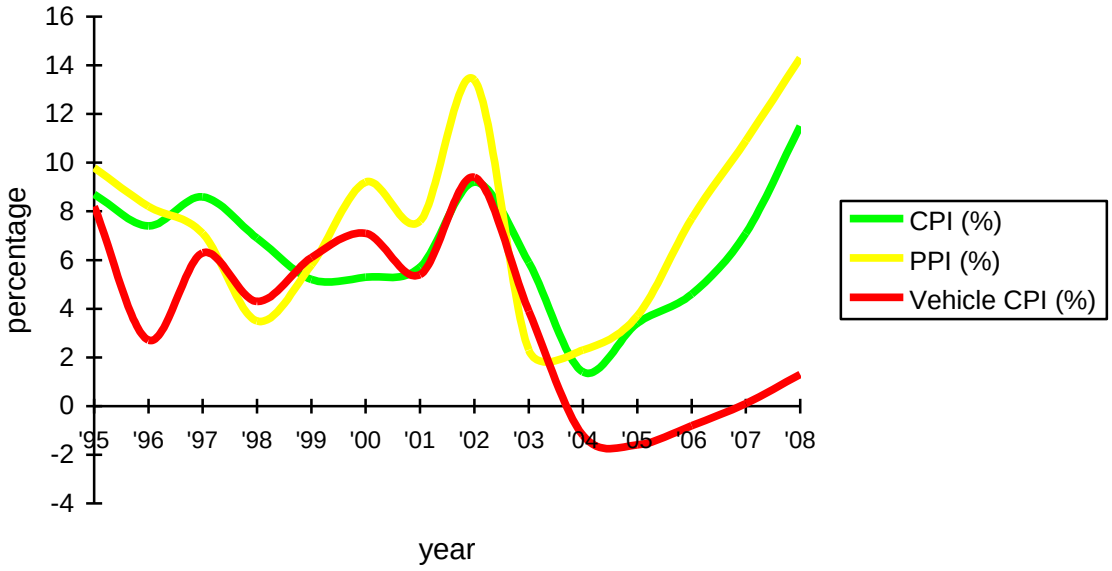

Figure 5.4: Rate of increase in vehicle prices compared to CPI and PPI for 1995 to 2008

*The average vehicle consumer price index is calculated by Statistics South Africa (SSA) and is based on new and used vehicle price deviations after discounts.

Source: Statistics South Africa, National Association of Automobile Manufacturers of South Africa

From 2004 to 2006, new vehicle affordability improved substantially in real terms by virtue of the fact that the OEMs virtually did not increase prices of new vehicles. In a number of instances, prices have also reduced in nominal terms. However, since the fourth quarter of 2006, OEMs and importers have passed on cost pressures in the form of modest price increases (NAAMSA, 2007:29). In 2008 an Independent Importer raised the issue of the serious consequences of the volatility of the rand and stated

that a shift of R1 in the dollar exchange rate had put up the cost of its cheapest car by R6 000 in the domestic market (Bentley, 2008b:13).

KPMG's 2007 global survey revealed that, in South Africa, vehicle affordability and price were the most important for first-time car buyers (Crawford, 2007a:39). The MIDP has resulted in increased competition by reducing protection. The reduced rate of vehicle price increases and the reduction in certain vehicle categories from 1995 to 1998 was one of the most positive features of the MIDP. This was attributed to greater international competition despite the weaker rand and high imported content. Improved affordability had a significant impact on domestic new vehicle sales (DTI, 1997a:12). In 2000, if new vehicle prices were indexed back to 1995, prices were 8 to 10% lower than they would have been if they had increased in line with inflation (DTI, 2000:18). In 1999 South African entry-level cars, in US dollar terms, were amongst the cheapest in the world, indicating that the MIDP at the time progressively exposed industry to greater pressures of international competition and the need for efficiency improvements (DTI, 2001:31).

The performance of the MIDP has been a topic of discussion by a wide national and international audience in determining the impact, achievements and shortfalls. Comments in this regard will be discussed next.

5.5.8 Comments on the performance of the MIDP

According to Voutsinas (2006:23–38) the automotive industry would not generally find a geographically isolated market or a market with only a few million consumers an attractive location to expand production. Nonetheless, stakeholders banded together and set the stage for the automotive industry to become South Africa's leading manufacturing base and the third largest sector in the country's economy. Within the global reality of overcapacity, South Africa brands itself as an attractive production hub for niche vehicle platforms. South Africa's competitive advantages such as its proven small and flexi-run production capabilities makes it fit into the broader global strategies of parent companies. Prior to 1995, many OEMs had majority domestic ownership while all OEMs are at present majority foreign owned. This structural shift has enabled manufacturing changes in favour of fewer models with much higher volumes through exports.

Black (2007:232–239) states that the processes of industrial change take place at the firm level and he defines three overlapping stages of firm level responses as the sector moves from protection to a more open trade regime. The first stage is the process of adaptation and development under protection. The second stage is termed internal restructuring, which can be either offensive or defensive and either internal or external to the plant. Exporting could be seen as an offensive strategy external to the plant while retrenchments could be seen as a defensive strategy internal to the plant. Other changes include greater specialisation of the product line, improving work organisation, the development of suppliers, new investment and licensing new technology. The changes, however, have been necessary but often not sufficient to deal with the new environment as they constituted the first phase of the competitive responses to globalisation. The third stage is internationalisation or external restructuring and requires firms to integrate or reposition themselves within the global value chains. This has frequently required the introduction of a foreign partner or even takeover by a foreign firm.

In the context of the South African automotive industry, the distinctive feature of industrial policy affecting the sector is the effective array of selective policies that were adopted. The key conclusion is that intelligently designed selective policies can be effective in developing countries. The critical component of the MIDP was the introduction of an export–import complementation scheme, which requires that for firms to gain competitive access into the small domestic market, they would need to export, either directly or indirectly, through their value chain. This was achieved by an administrative regime which was not over burdensome for users, and which provided little scope for corruption. It provided a relatively blunt series of incentives rather than the elaborate, intricate and often contradictory programmes used in other parts of the world and which frequently had a series of adverse unintended consequences. Moreover, by reducing the incentives over time, the MIDP represents a moving frontier, undermining the solidification of rents or economic waste, which has often impacted negatively on selective industrial policy. Initiatives such as the PAA, implemented in 2000, provide incentives for capital goods imports, which are targeted at export markets and which favour economies of scale (Barnes, Kaplinsky & Morris, 2003:17–20; Voutsinas, 2006: 23–38).

The MIDP has to a large extent achieved its stated objectives and in general its contribution to the domestic automotive industry has been regarded as positive. The programme was not intended to be a miracle solution but an interventionist programme to guide a small, ineffective industry's integration into the global automotive environment (Barnes & Morris, 1999:11).

According to the NAAMSA President and CEO of Toyota SA Motors, Dr Johan van Zyl (as cited by Venter, 2006c:12), the MIDP represents the appropriate and timely policy framework to safeguard sustainability of the vehicle manufacturing sector and associated industries going forward. Van Zyl described the MIDP as a major success in terms of broadening the base and increasing the output of the domestic motor industry, both in terms of automotive components and built-up vehicles. He described it as a case study of how a state-initiated incentive programme can totally change the face of an industry in a country. Although there are some detractors of the scheme, the MIDP's success in terms of growing employment, attracting massive local and overseas investments, rationalising the number of locally produced models, vastly improving production-capacity utilisation and improving overall operational efficiencies cannot be in doubt. The industry needs stability and predictability in official government automotive policy, as well as in programmes to enhance the development of technical, electronics and commercial skills related to the automotive industry (Murdoch, 2006a:8).

On 4 October 2007 Dr Van Zyl, in his capacity as NAAMSA President, also stated at the South African Automotive Week Conference in Port Elizabeth (as cited by Erasmus, 2007c:26–35) that from 1959 to 1994, the emphasis in respect of the domestic automotive industry was on protection, and the South African automotive industry enjoyed increasing duties and a local content regime based initially on mass, then on value. The MIDP guided the industry from this inward-focused policy regime. By 2000, the MIDP had changed the automotive landscape, with the rationalisation of local manufacture and an increase in imported vehicles. The rationalisation of local manufacture was particularly severe, bringing the number of local assemblers down to eight, as opposed to sixteen in 1980. On balance the MIDP has had a positive impact on the motor industry. It has to be acknowledged that the MIDP has rescued South Africa's motor industry, and it has achieved this by transforming the existing

production infrastructure. South Africa's share of global automotive production is inching forward, and comprised 0,86% in 2006 against 0,61% in 2000.

Figure 5.5 reflects the seven automotive building blocks for future growth, according to Van Zyl.

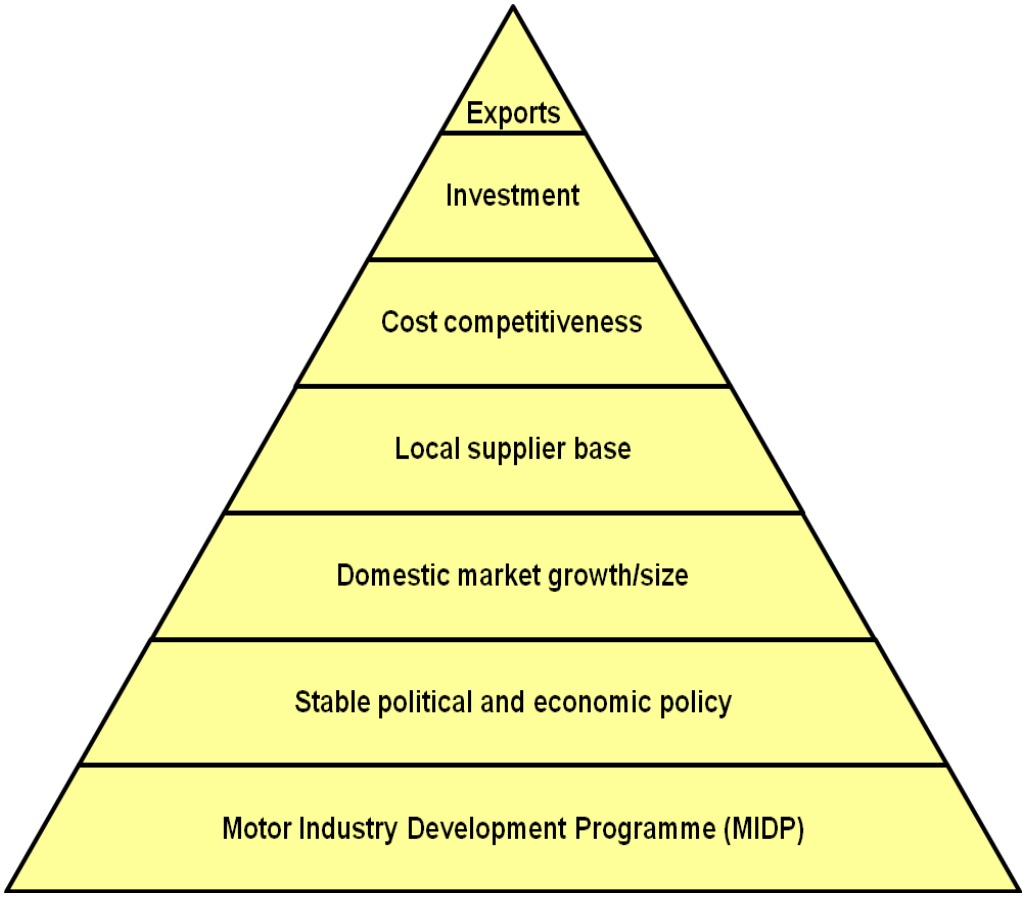

Figure 5.5: Domestic automotive industry building blocks for future growth
Source: Van Zyl as cited by Erasmus, 2007c:26–35

Dr Van Zyl further stated that South Africa's domestic market needs to grow and there is big opportunity because the levels of motorisation are low when compared to the rest of the world. The biggest obstacle to accelerated growth is South Africa's fragile supplier base and what is needed to achieve this includes a globalised supplier base via joint ventures and technical agreements, among others are

- high volume production
- capital investment with the latest technology
- training and development

- realistic and fair raw material pricing, and
- cost competitiveness.

Toyota's International Multipurpose Vehicle (IMV) is being built only in emerging markets, of which South Africa is one of four locations. The IMV uses original equipment components sourced from various developing countries, of which the hub is Thailand. South Africa is 23% more expensive than Thailand for a basket of parts, and this is generally par for the course with other low-cost countries (Erasmus, 2007c:26–35). This cost disadvantage arises from factors such as low production, logistical shortcomings, poor economies of scale, and the high cost of training and security. To get to the million vehicle plus production mark by 2020 under the new APDP, the OEMs will need to invest R50 billion and to achieve this will require confidence from the investors. This confidence will need to be generated by the revised and revamped MIDP. The revised MIDP, in the form of the APDP from 2013 onwards, will need to be crystal clear, WTO compliant, investment friendly, and targeted towards the protection of local production and the support of skills and development and job creation. For South Africa to leapfrog six countries in the current global production stakes by increasing vehicle production to over one million vehicles, stakeholders will need to closely evaluate the trade-offs of objectives inherent in each choice. The trade-offs relate to improved vehicle affordability, higher investment, increased global integration, raw material pricing, reduction in imports, improving the trade balance, generating jobs, different incentives, and competitive issues. Every choice will impact on other areas of the APDP and hence the industry's contribution to the country's GDP. The outcome of each trade-off will thus have to be considered in recognition that the rest of the world is also moving and not static (ibid, 2007b:26–35).

During the RMI Conference at the Automechanika SA event in Johannesburg from 18 to 21 March 2009, David Powels (as cited by Erasmus, 2009:48), the 2009 NAAMSA President and CEO of Volkswagen SA, reiterated the comments from his predecessor. He stated that if the country had no automotive industry the implications would be significant. The goals of the MIDP have been met considering that the automotive industry's trade deficit declined substantially in 2008. However, he stated that using a Western Europe cost index as a base of 100, South Africa was still 20% less competitive than the established manufacturing bases in Europe. Compared to China

the industry was 40% less competitive, compared to India 32%, Eastern Europe and Mexico 31%, the Asia Pacific Rim 17% and Brazil 16% less competitive. He stated that for the industry to survive in the medium to long term, the following are required:

- Local content levels need to increase from 45 to 75%,
- Average volumes per platform need to double to between 75 000 and 100 000 units per annum.
- Supplier competitiveness needs to improve to at least the Western European level.
- A major industrialisation strategy is required in the supplier industry to increase manufacturing depth to second- and third-tier suppliers.
- Productivity needs to increase from below 20 cars per employee per annum to over 30 cars per employee per annum.
- Massive investment is needed in training and skills development at all levels.

Powels further stated that the domestic automotive industry sustainability would depend on the adaptation to the reality of lower new vehicle sales. This would require a re-evaluation of business models, an unrelenting focus on cost reductions and efficient sourcing and supply chain management. The security of the supply chain was paramount and, hence, at industry level the focus should be on cost-effective, localisation projects.

In November 2008, the *Financial Mail* requested Dr J Van Zyl, as President of NAAMSA, to respond to an article by Professor Frank Flatters published in *Business Day*. The article dealt with the new Automotive Production and Development Programme (APDP) under the heading “Subsidies and Secrets: New Plan, Same Old Questions”.

The essence of the criticism by the resident foreign academic, Frank Flatters, is that, in terms of the MIDP, 1) OEMs are subsidised at the expense of consumers; 2) that the subsidies range from 225 to 700% of OEMs’ investments; 3) that subsidies are enjoyed by a few automotive companies (who allegedly profit from importing vehicles and automotive components free of duty and sell them on at duty-inclusive prices); 4) that the restriction on imports of used vehicles provides additional support for the

industry; and 5) that the authorities have not been sufficiently transparent in releasing information about MIDP costs versus benefits.

The only area where the industry's critic has a point is in regard to the need for greater transparency regarding the MIDP cost–benefit analysis. In this regard, NAAMSA supports the release of independent research by the United Nations Industrial Development Organisation (UNIDO), the Industrial Development Corporation (IDC) and the MIDP Review Consultants. NAAMSA believes that the research findings confirm that the benefits to South Africa overwhelmingly outweigh the costs of support measures. In respect of the other issues, the conclusions by the critic are wrong simply because the key assumptions made are without substance.

The response by Dr Van Zyl highlighted the fact that some commentators have tended to ignore the significant achievements and structural changes in the South African automotive industry. These are attributable to the provisions of the MIDP as well as the fact that the integration of the industry into global markets would have been impossible without the MIDP. He stated that (Van Zyl, 2008):

> Firstly, it is not true that participation in the MIDP is restricted to "a few automotive companies". Participation is open to automotive component manufacturers, vehicle importers and OEMs and is used extensively by all three sectors. Moreover, credits earned in respect of eligible automotive component and vehicle exports are either used by suppliers to improve their pricing to the OEMs or are utilised by vehicle manufacturers/importers to rebate import duties on imported vehicles. Given the ultra competitive state of the domestic market, OEMs/importers invariably pass on such benefits to the market in the form of more attractive pricing. How else does NAAMSA explain the fact that average new vehicle price increases in South Africa have been restrained well below inflation in 10 out of the previous thirteen years. A 2008 comparison of prices of comparable products in South Africa versus Australia indicates that, at current exchange rates, South African prices are up to 35% cheaper than the equivalent vehicle in Australia. At the same time, South African consumers have continued to benefit from better product quality and a virtually unlimited choice of models.

Secondly, the suggestion that OEMs/importers pay no duty but price vehicles to domestic consumers at duty inclusive prices is also without foundation. The comments in the previous paragraph should be adequate to refute this allegation. Moreover, NAAMSA can confirm that, almost without exception, domestic OEMs and importers have been net payers of MIDP duties virtually every quarter since the inception of the programme.

Thirdly, the proposed importation of used vehicles may sound appealing but in practice, wherever it has been allowed, has resulted in serious problems to the detriment of consumers. Does South Africa want to become a dumping ground for vehicles discarded in first world countries? Many such used vehicles would not comply with basic vehicle safety specifications and environmental standards and are invariably supplied to consumers without any technical or replacement parts backup. In countries where imports of used vehicles have been allowed, it has without exception resulted in the decline of their domestic automotive industry at the expense of employment, growth and development. Similarly, serious social dislocation, regionally and nationally, would eventuate if used vehicles were allowed to be imported in an uncontrolled basis. A further important factor, as confirmed by experience in other countries, is that allowing imports of second-hand products results in a country becoming an attractive destination for stolen vehicles, with associated and consequential problems for consumers and the authorities.

NAAMSA accepts that official policy is all about alternative choices in relation to limited resources. Automotive industry policy is no different, however, a key requirement is predictability and certainty in South Africa's automotive policy regime going forward. The announcement of the provisions of the Automotive Production and Development Programme (APDP) from 2013 through 2020 should enable the industry to plan strategically for the future and to finalise investment decisions with confidence. However, the industry's future will remain extremely challenging given the highly competitive global environment. Most countries with vehicle markets similar to or larger than South Africa protect their industries with significantly higher tariffs and, in many instances, extremely attractive support measures.

On balance, the industry's track record during the tenure of the MIDP has been positive and the automotive industry remains one of South Africa's most impressive business success stories over the past decade. Despite the many challenges, the APDP should assist in the objective of elevating the domestic automotive industry to higher levels of performance and production through 2020 in a balanced way taking account of the country's growth, development and employment imperatives and the legitimate interests of the industry's customers.

Ultimately, NAAMSA views job retention and creation as critical to the future of South Africa. Nobody can be serious about the future of our country and its consumers that argues in favour of policies that would destroy the automotive industry and its jobs.

In the MIDC meeting of 1 October 2008, Professor Black and Dr Barnes, consultants to the DTI in respect of coordinating the 2005 MIDP Review, presented an overview of the APDP's architecture and associated model findings up to 2020. The model revealed that the ratio of industry value addition to MIDP assistance in 2007 was R5 value addition to the economy for every R1 cost to the fiscus. In 2012 the ratio increases to R5,56 for every R1 cost to the fiscus. The model also revealed that under future government support in the form of the APDP, vehicle production of 1,2 million units projects an additional employment increase by the OEMs of 22 971 people and an additional automotive component sector employment increase of 45 623 people compared to 2007 levels. In addition, total vehicle sales value (domestic and exports) is projected to increase by an additional R126,3 billion. The model findings include that without an MIDP or future APDP several OEMs would discontinue operations in South Africa. The loss of employment by 2020 could amount to about 116 500 persons compared to a situation with an APDP.

In view of the above, despite some detractors, the MIDP has to a large extent achieved its objectives. The general view on the programme's contribution to the South African automotive industry is regarded as positive by most commentators.

5.6 EXOGENOUS FACTORS IMPACTING ON THE SOUTH AFRICAN AUTOMOTIVE INDUSTRY

According to Harvard economists (as cited by Hill, 2006:9) South Africa needs to enhance its export-oriented manufacturing sector if it hopes to accelerate economic growth to its targeted 6% by 2010. Export-orientated manufacturing is the key to meeting South Africa's growth target. In 2007, the then Trade and Industry Minister Mandisi Mpahlwa (as cited by Creamer, 2007b:9) admitted that the diversification of the South African economy towards a more labour-absorptive and value-adding industrialisation path had not been rapid enough. He stated that although the economy has shown significant growth over the past few years, the main drivers of this growth, namely domestic consumption and the global commodity boom, are not a sustainable growth basis for the achievement of the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) objectives. These objectives include raising economic growth levels to 6% by 2010 and halving unemployment and poverty by 2014. This is 10 years after the policy was first set out and 20 years after South Africa's first democratic election in 1994. Government has determined that the economic growth rate must be at least 6% for the desired impact on poverty and unemployment to be achieved. An essential principle for economic growth is the sustainability principle. For South African economic management generally and South African businesses in particular, the following emerging trends are starting to arise (Creamer, 2007b:9):

- More competitive currency – The first is that the South African authorities are likely to prefer a currency that has a bias toward weakness rather than strength. The decision is premised on a realisation that, in order for South Africa's value-added exports to have any real chance of global penetration, the South African exchange rate has to be relatively competitive.
- Local content and the big infrastructure push – The desire for greater levels of local content, particularly within South Africa's R787 billion public-infrastructure campaign. Government has backed up this desire by setting the delivery of local content as a key performance indicator for senior managers within the main capital-spending state-owned enterprises, such as Eskom and Transnet.
- More active intervention in new sectors – Greater willingness by government to move beyond its current set of generic support measures towards a more focused set of incentives backed by a new level of financial resources. In other words, it is willing to take the risk of picking winners.

- Re-skilling for quality and value addition – Much more attention is being given to skills development as well as to the quality of the education-and-training system in South Africa. The challenge here, though, lies in implementation.
- A diversified trader – Increasingly companies are viewing exports as integral to their business plans, instead of cherry-on-top sales. However, the country's balance of trade has deteriorated as it continues to export low-value commodities and import high-value finished products. These despite the fact that trade negotiators have made some real progress in opening new markets for South African products.

According to Barnes and Morris (1999:15) the fate of the South African automotive industry is largely determined by the effectiveness of its responses to domestic and global pressures. The MIDP's facilitation of the development of the South African automotive industry is not a closed experiment in a scientific laboratory. The MIDP has strengths and weaknesses in terms of its various policy mechanisms. By its very nature the programme, through its outward orientation, lays the industry open to exogenous forces. These forces are unpredictable and potentially both beneficial and damaging to the industry.

These exogenous factors, foremost in the minds of the South African automotive industry role-players, include global developments, WTO rules and regulations, trade arrangements, logistics costs, raw material prices, currency movements as well as BEE and HIV/Aids, and these will now be discussed.

5.6.1 GLOBAL DEVELOPMENTS

Since the second half of 2008, the global financial crisis, the consequent economic recessions in key developed countries as well as a tougher competitive environment have dominated global developments in respect of the automotive industry. These developments impacted significantly on the future of the Big Three, namely General Motors, Ford and Chrysler in the USA. According to Revill (2008:4) a collapse of General Motors would leave its European operations in need of a partner or new owners to survive. A General Motors bankruptcy in the USA would halt the flow of money to General Motors Europe and the effect of General Motors' insolvency on Opel would entail the collapse of its new-car sales, the delay or termination of new

product development, cash-on-delivery demands from suppliers, and job cuts and closures or sale of assembly plants.

Changes in the economic environment affect both consumers and marketers. Consumer confidence is eroded and marketers have to weigh their marketing strategies carefully. Recessions have an impact on consumer spending and especially hard hit may be expensive purchases such as cars. Marketers' responses to these circumstances have varied from abandoning markets to substantially increasing their efforts. Returning to a market, once abandoned, may prove to be difficult. An approach in the face of the challenges is to increase efforts in building market share. This strategy is naturally based on the premise that the market will rebound in the foreseeable future, thus rewarding investments made earlier (Czinkota & Ronkainen, 2007:561, 562).

The South African-based OEMs have been fully integrated into the global networks of OEM parent companies and are therefore also affected by the global developments impacting on their OEM parent companies. In addition, through its necessarily outward orientation the MIDP has exposed the domestic industry to increasingly intensive global pressures. According to WTO Director General, Pascal Lamy (as cited by Van der Merwe, 2009:9), world trade could decline by 9% in 2009 as a result of the global financial crisis and as a consequence many thousands of trade-related jobs could be lost. The risk in the response to the economic crisis is increased protectionist measures.

How these global trends play themselves out is of critical importance given the manner in which they directly impact on the South African automotive industry and on the ability of the MIDP to meet its objectives for the industry. Global overcapacity and the continued investments by OEMs and automotive component manufacturers in certain geographical localities mean that it is more difficult for the domestic industry to find viable export markets. Connectivity into global value chains becomes equally important with these being determined by equity relationships with multinational companies and the establishment of suitable licensing agreements with new technology owners.

According to Barnes and Morris (1999:15) the importance of exogenous factors lies in the interface between the import–export complementation of the MIDP, domestic market performance and exporting volumes. Owing to stagnant vehicle demand in South Africa between 1995 and 2003, which cannot be attributed to the MIDP given lower real vehicle prices through the latter part of the 1990s, the effective rate of protection for the automotive component industry had been impacted on significantly. Given a higher growth rate in the domestic market, the import rebate credits earned on exporting would have proved far less comprehensive in terms of covering the duty payments, hence a greater propensity to purchase domestically manufactured components. Higher volume production runs for automotive component manufacturers, thus giving them a greater incentive to invest in new capital equipment and improve their competitiveness would have further encouraged this propensity. However, neither of these two scenarios has occurred. The local content level in domestically assembled vehicles has remained relatively low at levels around 50%. The exogenous factor explained here has consequently been a major contributing factor to the MIDP's relatively poor performance in respect of its output and employment. It may well also have operated to significantly and inadvertently shorten the global integration period for automotive component manufacturers in particular, thus exposing firms to massive levels of competitiveness over a short period of time as part of the rapid global integration.

South Africa's international obligations with respect to the MIDP and the WTO rules and regulations will be discussed next.

5.6.2 WORLD TRADE ORGANIZATION (WTO)

South Africa is a signatory to the WTO. Member countries are under an obligation to ensure that their national legislation, regulations and procedures conform fully to the provisions of these agreements. A potential or WTO challenge to an existing support measure has the risk of destabilising an entire industry. This could happen should sudden changes to the support measure be forced upon the industry as these will impact on long-term policy certainty and investor confidence.

In 2004 Australia threatened to challenge the MIDP at the WTO as not being compliant with members' rules of trade in linking incentives to export performance and

local content. The Australian complaint was targeted specifically at the stitched leather seat industry, the second biggest automotive component exported under the MIDP after catalytic converters. Since a potential challenge to the MIDP could have seriously threatened policy certainty, and hence the existence of the industry in the country, the South African government ring-fenced stitched leather seats. The action was to isolate the problem and to keep it apart from the rest of the MIDP. As a result no export incentives under the MIDP on South African leather exports were allowed to Australia from 1 January 2006. The 2005 accelerated leather review as well as the general MIDP Review undertook to take account of South Africa's international trade obligations as part of the recommendations in respect of possible alternative support mechanisms (Venter, 2006b:16).

A further area of government involvement impacting on the domestic automotive industry and the MIDP is the area of trade arrangements, which will be discussed next.

5.6.3 TRADE ARRANGEMENTS

Intensifying competition for export markets, investment and technology is the hallmark of the current global economic environment and access to markets is the measure for global competitiveness. The process of integrating economies includes the gradual and reciprocal liberalisation of trade and strengthening of economic cooperation between countries. Elimination of tariffs enhances South Africa's potential to compete against the same products not accorded similar tariff benefits into the relevant countries (AIEC, 2007:9).

It is the stated objective of the DTI to increase trade with geographic locations that form part of the developing world, as significant growth is expected in those regions in the medium term. South Africa has been engaged in a series of free or preferential trade negotiations with the EU, SADC, the European Free Trade Association (EFTA), Mercosur and India. The possibility of preferential bilateral agreements with countries such as China and Nigeria are also being examined. Over and above these measures, South Africa is also the recipient of various unilateral preferential trade arrangements in which other countries unilaterally provide access to their markets through lower tariffs and increased/removed quotas. These arrangements are not negotiated and

can be unilaterally amended by the providing country. The USA provides such market access opportunities to a number of African countries, including South Africa, through the AGOA. A number of developed countries also offer market access through the Generalised System of Preferences (GSP) mechanism (ibid, 2007:9).

The UN Conference on Trade and Development forecasts exports from developing countries, many of whose economic strategies are predicted on strong export growth, could decline by 9,2% in 2009. South–south trade is likely to be the only growing area. The attempt by developing countries, especially big emerging markets such as China, India and Brazil, to rely more on one another is a further sign of a shift in global power away from the USA and Europe. WTO figures show that south-south trade accounted for 16,4% of the US$14 trillion in total world exports in 2007, up from the 11,5% of the total in 2000 (Creamer, 2009:6, 7).

Cross-border business, however, involves customs duties as just one of the barriers being encountered. A myriad of other compliance and protectionist instruments have risen as significant and often insurmountable barriers to trade, especially for developing country firms. These instruments include specific tariffs, antidumping measures, and a plethora of non-tariff barriers for products and company behaviour (Von Kirchbach & Mimouni, 2003:25–30). When measures are applied inconsistently with international agreements they can become insurmountable barriers. In addition, duty drawback schemes, export incentives and international multinational transfer pricing and practices all combine to make the global automotive sector a complex one. In many countries, the automotive sector has iconic status but this is generally only possible behind high tariff and non-tariff barriers. Almost every known non-tariff barrier protects automobiles and their associated parts (Hanival, 2003:1–3).

A study done by Consult 101 (2005:188–190) in respect of the preferential trade agreement between South Africa and Mercosur highlighted potential threats to the South African automotive industry. In the order of 51 different taxes and fees, in addition to the customs duty of 35% on CBUs, are payable in Brazil. Some are uniform nationally while others vary from state to state. Taxes apply incrementally and therefore have a cascading effect. The rates applicable on imports of passenger vehicles are progressive and escalate from small to bigger cars. The cumulative effect

of these taxes and fees is a doubling of the basic duty on imports. Trade policy measures and regulations in Brazil and Argentina change regularly and are unpredictable. Imports of motor vehicles and some automotive components into Brazil are subject to special non-automatic licensing. Non-automatic licences are granted within 60 days but it has been reported that applications for licences often remain indefinitely pending. Most reports list the customs clearing system in Argentina and Brazil as difficult, cumbersome and causing long delays. The time taken for imports to clear customs can take between 14 and 32 days. Product labelling must provide the consumer with correct, clear, precise and easily readable information about the product's quality, quantity, composition, price, guarantee, shelf life, origin and risks to the consumer's health and safety. Imported products must bear this information in Portuguese (Brazil), and indicate the country of origin.

The trade arrangements with the EU and the USA have been advantageous to the South African automotive industry, as highlighted by the export performance of the South African automotive industry to the EU and the USA. However, the challenge for the domestic automotive industry as far as the free and preferential trade negotiations are concerned is how to accommodate the MIDP in these agreements without tampering with the integrity of the programme. This could lead to potential distortions between regions and countries should the same rules not apply.

In August 2008 SADC officially launched its free trade area, which is a step towards the anticipated establishment of a customs union by 2010 and a common market by 2015. A proposed trading block consisting of SADC, the East African Community (EAC) and the Common Market for Eastern and Southern Africa (COMESA) to unite 26 countries with a combined population of 527 million and a GDP of US$624 billion is also being pursued and it would form the largest free trade area in Africa. Trade facilitation and the removal of non-tariff barriers would be the key to the success of the free trade area. Administrative customs rules and procedures, certain levies for environmental conservation and a proliferation of taxes being levied on trucks travelling from one country to the other add additional costs for the importer (Yarmoshuk, 2009:2, 3; Kalaba, 2009:8, 9). According to Le Roux (2009:8), the transport cost of a container to an African harbour is in the order of US$1 000 while the inbound delivery cost of the same container amounts to US$6 000. In addition,

delivery could take weeks owing to a lack of linking roads and rail from mines and other production centres to the corridor networks that link products to ports. A case in point was the 90 to 120 days for Lever Brothers to transport goods from Uganda to the Dar es Salaam, Tanzania and Mombasa, Kenya ports, a distance of 1 000 km by road. Should the cost of inbound transport not decrease significantly in African countries, it will impact negatively on production and hence foreign investment on the continent.

Inputs from respondents regarding the impact of tariff and non-tariff barriers as factors of constraint on market access into foreign markets for South African manufactured light vehicles will be obtained via the empirical survey forming part of this study.

Logistics costs, which are a major burden on delivering products to the marketplace, will be discussed next.

5.6.4 LOGISTICS COSTS

According to Smit (2008:4–7) one of the major challenges facing South Africa is the long distances between the ports and Gauteng, the latter which constitutes 60% of the domestic market. The average distance between the ports and the domestic market for imports and exports is 720 km. This distance is often covered by road, which is more costly than rail. Even worse is the average distance to the international markets for these imports and exports, that is, 11 200 km. The inbound costs in the country range from 32 to 40% of the total transport costs and the outbound costs to the international markets between 60 and 68% of the total transport costs.

In 2007 total logistics costs in South Africa amounted to R317 billion. Transport costs in the country are 39% higher than the rest of the world. Only 13% of freight in the country is transported by rail while 87% is transported by road. The development of an integrated port and rail corridor system to address the high cost of domestic transport is part of Transnet's integrated freight transport strategy. The R80 billion investment plan will focus on the expansion of Transnet's port, rail and pipeline business. R40 billion will be spent on rail of which R16 billion will be spent on trains in order to increase rail transport to about 30% up to 2014 (Styan, 2009:1).

Owing to the vast distances needed to be covered to transport goods to its ports, South Africa has what is termed a transport intensive economy. According to Breitenbach (2007a:2), while the country produces less than 0,4% of the world's GDP, it requires 2% of global transport in terms of ton per kilometre. South Africa accounts for approximately 6% of the world's sea trade and that is within the top 12 international sea trading nations of the world.

Government overall spending on infrastructure will amount to R787 billion over the next three years from 2009 to 2011. Major investments in power generation, transport networks and telecommunications are in progress (Venter, 2009a:18). Infrastructure bottlenecks are causing substantial inefficiencies in the motor industry pipeline. Congested ports and terminals, particularly in Durban, insufficient car-train capacity, especially between Durban and Gauteng, as well as traffic congestion on major routes are causing lengthy delays and additional costs (Venter, 2006f:8). Owing to factors such as logistics cost in distance to markets, low productivity, a lack of economies of scale and issues such as skills shortages and vast spending on security, South Africa as a vehicle producing country is at a cost disadvantage of between 20 and 25% compared to its competitors (Van Zyl as cited by Venter, 2006f:16,17). High oil prices increasingly impact on logistics costs while the cost of exporting a product to Europe, the South African automotive industry's main export destination, represents in the order of 10% of the value of the product (Venter as cited by Lamprecht, 2006a:89).

Good infrastructure in roads, rail, ports, airports and telecommunication reduce transport costs and improve economic growth. Government's infrastructural investment plan focuses on identified areas in rail, port and pipeline as well as to eliminate bottlenecks and the replacement of assets, create future capacity to meet projected demand and focus specifically on container growth and container capacity (Breitenbach, 2007b:14). The improvement of port infrastructure plays an important part in Transnet's plans to enhance its support of the supply chains that sustain South Africa's economy. In order to sustain its competitiveness, South Africa has to reduce its logistics costs by one third (Le Roux, 2006:81; Tyrer, 2006:58). The researcher is part of the NAAMSA Supply Chain Working Group, which includes senior representatives of Transnet, NAACAM, the DTI and SARS. The Working Group was

established in December 2007 to focus on strategic issues and address the OEMs' supply chain and logistics requirements in a cost-effective way.

Inputs from respondents regarding the impact of logistics costs as a factor of constraint on market access into foreign markets for South African manufactured light vehicles will be obtained via the empirical survey forming part of this study.

In addition to logistics cost pressures, the domestic automotive industry also has to face high raw material input prices, which will be discussed next.

5.6.5 RAW MATERIAL PRICES

South Africa has a comparative advantage and possesses an abundance of raw materials. It is the world's top-ranked producer of platinum, palladium, rhodium, chrome, manganese, vanadium, vermiculite, ferro-chromium and alumina-silicates. In terms of global reserves and production of minerals, the country holds 90% of platinum-group metals, 80% of those of manganese, 73% of chrome, 45% of vanadium and 41% of gold reserves (AIEC, 2008:10).

Import Parity Pricing (IPP), however, has been identified as a major constraint on growth and the expansion of the downstream sectors. The OEMs pay the same price for commodities such as steel as those companies South Africa sells its commodities to in Europe or elsewhere, owing to the policy of IPP. In terms of the IPP pricing model, the domestic price is set at the international price with the addition of costs such as freight, insurance, harbour charges and import duty. Not only does the system inflate prices of input costs, but it also hinders growth in the value-added, labour-intensive downstream industries. South Africa needs to develop less reliance on the export of raw materials. The contentious issue of pricing has been identified by the DTI and in late 2005 Cabinet resolved to pursue a policy that seeks to move away from the controversial practice. The Trade and Industry Minister at the time, Mandisi Mpahlwa, announced on 29 March 2006 in Parliament that government had decided to scrap the 5% import duty on carbon steel and that it would like to see the phasing out of IPP in favour of a system of non-discriminatory domestic and export pricing. Policy instruments would be deployed to ensure a substantial reduction in margins between domestic selling prices and export prices – in certain sectors, the differential

was as much as 30% (Venter, 2006f:16, 17; Creamer, 2007a:8). Despite an increase in input costs, many automotive component manufacturers have been forced to lower their prices in the face of heightened competition from imports.

In addition to inviting cheaper imports, the strong rand has also reduced export competitiveness and the impact will be discussed next.

5.6.6 CURRENCY MOVEMENTS

The weaker a country's currency is compared with the currencies of its major export markets, the more competitively priced that country's exports can be and vice versa. The principle, however, is a more complex one. A weakening of the rand against the US dollar means that costs incurred in rand become cheaper in dollar terms, but the international transport and imported input costs are still incurred in US dollars, which have not changed (Trade Secrets, 2004:273). In a weak currency environment investors have to make higher returns to compensate for potential currency losses. Owing to the small size of the South African automotive industry and its import propensity, currency deviations with trading partners will always impact on domestic operations.

Table 5.20 reveals the currency movements of the rand against those of South Africa's main automotive trading partners. The sharp depreciation of the rand in the late 1990s enhanced exports but led to a big increase in vehicle prices as a result of higher input costs, given the magnitude of imports. Imports from Germany and Japan comprised 50,5% of passenger cars and 85% of original equipment components in 1999 (DTI, 2000:14, 15). This had a negative impact on the sector's trade balance.

The rand reached a record low of R13,85 to the US dollar in December 2001, but started to appreciate against all currencies and in particular against the US dollar to the extent of a 130% appreciation from the latter half of 2002 until the end of 2004 (Downing as cited by Lamprecht, 2006a:120). This led to a sharp decrease in inflation and substantial interest rate relief, which enhanced domestic demand, but jeopardised the country's export competitiveness (DTI, 2004:50). Interest rates of competing markets are at around 2% compared to South Africa's 14% in 2008, which makes the

cost of capital very expensive in the country compared to those markets (Venter, 2009a:22).

Table 5.20: Currency indices for the rand versus major trading partners (foreign currency: rand - annual averages)

Currency	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Japan (100 yen)	3,88	3,95	3,81	4,24	5,39	6,43	7,08	8,39	6,51	5,96	5,78	5,82	5,99	8,05
Index	100	102	98	109	139	166	182	216	168	154	149	150	154	207
Euro	4,69	5,38	5,21	6,22	6,52	6,39	7,71	9,90	8,53	8,01	7,91	8,52	9,66	12,05
Index	100	115	111	133	139	136	164	211	182	171	169	182	206	257
US ($)	3,63	4,30	4,61	5,53	6,11	6,93	8,60	10,52	7,56	6,44	6,36	6,77	7,05	8,25
Index	100	118	127	152	168	191	237	290	208	177	175	187	194	227

Source:South African Reserve Bank (SARB)

Although a depreciating rand has a stimulating impact on exports, two important factors impacting on South African exports are the declining foreign demand as well as increasing input costs. As far as the automotive industry is concerned exports to its major markets, the European Union, Japan and the USA are declining since 2009. The decline relates to the impact of the global financial crisis and consequent economic recession experienced in those markets. The increase in input costs is negatively impacting on the domestic industry's export competitiveness. The problems are amplified by a declining domestic market resulting from the adverse economic conditions experienced since 2007. Domestic manufacturers are therefore not being able to capitalise on weaker import growth via increased sales in the domestic market. The volatility of the rand against major currencies impacts on planning decisions and currency stability is generally preferred to the specific level. The volatility of the rand was again evident in 2008 when the year started at R6,75 to the US$ and depreciated to R11,37 to the US$ on 22 October 2009 (Visser, 2009:2).

Inputs from respondents regarding the impact of currency movements as a factor of constraint on market access into foreign markets for, as well as the importance of exchange rates in contributing to an increase in South African manufactured light vehicle exports will be obtained via the empirical survey forming part of this study.

In addition to the cost pressures relating to improved international competitiveness, the domestic automotive manufacturing sector also has to take account of certain social aspects such as BEE and the HIV/Aids pandemic, which will be discussed next.

5.6.7 Broad Based Black Economic Empowerment (BBBEE) and HIV/Aids

Investors in South Africa must be ready to address two key issues, namely Broad Based Black Economic Empowerment (BBBEE) and the HIV/Aids pandemic. The DTI published the final Codes of Good Practice in the Government Gazette on 9 February 2007. BBBEE seeks to give increased ownership and control over businesses to historically disadvantaged persons and to increase the procurement-spending going to BEE firms. The South African government is firmly committed to promoting BBBEE and investors need to have plans to include the training of black workers at all levels of the company and to work with other BEE firms. The codes are legally binding only on government agencies. Compliance by private sector companies is voluntary. However, companies will be seriously impacted by non-compliance as it would inhibit doing business with other companies seeking to obtain BEE points. A lack of BEE points would practically eliminate the ability to compete for government licences, concessions and tenders. The scorecard is made up of seven categories and measures progress against compliance targets. The seven categories are ownership or equity equivalent, management control, employment equity, skills development, BEE procurement, enterprise development and socio-economic development. BEE rating companies that verify compliance must be accredited by the South African Accreditation System (South Africa at a glance, 2008/09:189, 190).

The generic scorecard, or alternatively, the sector specific scorecard approach, as well as certain concerns around preferential procurement, equity equivalent in respect of multinational companies and the impact on the cost of doing business in South Africa require further clarification by various industry sectors. The concerns could potentially impact on investor confidence should they not be resolved amicably.

All companies investing in South Africa should also have a carefully developed HIV/Aids policy, given the high rates of infection and the need to treat and minimise the impact of the disease on the sustainability of operations. This should range from direct provision of healthcare and policies for direct relatives, to training excessive

staff numbers to account for subsequent deaths (EIU as cited by Lamprecht, 2006a:121). In December 2007 WTO estimates indicated that South Africa remained the country with the largest number of HIV infections in the world. Government is responding to the problem and 25 000 health workers will be added by 2010, the hospital revitalisation programme will receive more funding and more money will be available for training and fighting HIV/AIDS (South Africa at a glance, 2008/09:68, 69, 122).

5.7 SUMMARY OF CHAPTER 5

Since 1994 South Africa has had to abide by the new business rules that followed the country's economic and political liberalisation. The MIDP was the viable automotive policy choice agreed upon by all automotive industry stakeholders at the time. The programme was intended to be an interventionist programme to guide a small, ineffective industry's integration into the global automotive environment.

The process of trade liberalisation is forcing South African companies to encounter both intensified and new forms of competition. Growing import competition in the domestic market and competition from low-cost products sourced from a global pool are the order of the day. The MIDP facilitates the outward orientation of the domestic automotive industry through its various policy mechanisms. However, the MIDP cannot control the range of exogenous factors impacting on the business operations of the South African automotive industry and its role-players. Despite some detractors, the programme has to a large extent achieved its objectives. These objectives include the growth of the automotive sector in the South African economy, sustained levels of employment and the improved international competitiveness of the sector. In a relatively short period of time, the South African automotive industry has been fully integrated into the global networks of parent companies and multinationals abroad. The constructive way in which all the relevant role-players in South Africa cooperate to achieve results has ensured that the automotive sector is being increasingly regarded as a benchmark for the other priority sectors in the economy.

CHAPTER 6: RESEARCH DESIGN AND METHODOLOGY

6.1 INTRODUCTION

Marketing research is defined by Tustin, Lighthelm, Martins and Van Wyk (2005:7, 8) as the systematic and objective collection, analysis and interpretation of information for decision-making and marketing problems of all kinds by recognised, scientific methods. One key element essential in science is the accumulation of knowledge and advancement of understanding through time. The role of marketing research is regarded as an aid to decision making while it also emphasises the specification and interpretation of needed information. According to Czinkota and Ronkainen (2007:247), the most frequent objective of international market research is that of foreign-market opportunity analysis. When a firm launches its international activities, information is needed to identify and compare key alternatives.

After 1994, with South Africa's political and trade liberalisation, significant structural changes took place in the South African automotive industry fuelled by new business rules in its striving to become more internationally competitive. Although the domestic automotive industry was allowed to export it also had to cope with increased imports. Chapter 6 focuses on the research methodology used to investigate the primary objective of the study, namely the impact of the Motor Industry Development Programme (MIDP) on the export strategies of the South African light motor vehicle manufacturers (1995–2008). The details of the marketing research process followed for the purpose of this study are discussed below.

6.2 THE MARKETING RESEARCH PROCESS

According to Tustin et al. (2005:75, 76) the research process provides a systematic, planned approach to a research project and ensures that all aspects of the research are consistent with one another. These authors divide the research process into a conceptualisation phase and an operational phase involving the following 13 steps:

Conceptualisation phase steps:

1) Identify the marketing research problem or opportunity
2) Define the marketing research problem/opportunity

3) Establish the research objectives
4) Determine the research design

Operational phase steps:

5) Identify the information types and sources
6) Develop a sample plan
7) Design the research instrument
8) Collect and edit the data
9) Code the data
10) Data capturing, cleaning and storing
11) Data analysis
12) Presentation and research findings
13) Follow-up

Steps 1 to 3, which are indicated as part of the conceptualisation phase above, were executed in chapter 1. The primary research objective in chapter 1 stated that the aim of the research would be to analyse the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008) by capturing the responses and perceptions of the eight OEMs and 15 key automotive industry stakeholders.

Although the research process might be similar for business markets and consumer markets, there are fundamental differences in the character of both. Tustin et al. (2005:17) illustrate the major differences between the two groups in Table 6.1. The automotive industry exhibits all of the characteristics mentioned in Table 6.1, and can be classified as both a business market and a consumer market. The focus of this study is aimed at the business market.

Table 6.1: Differences between business and consumer markets

Marketing mix	Business	Consumer
Product (service)	Technically complex, custom-made, service very important	Service reasonably important, standardised
Price	Competitive bidding, fixed prices on standard items and negotiations on complex products	Fixed prices
Promotions	Main emphasis on personal selling	Main emphasis on advertising
Distribution	Shorter, more direct channels	Various intermediaries
Market structure	Geographically concentrated, few buyers, a few large competitors	Widely dispersed, masses of consumers, one or two large competitors
Relationship with consumer	Longer term, but more complex	Shorter term
Decision-making process	Various members of the enterprise involved	Individuals or family decide

Source: Tustin et al., 2005:17

The research design, representing step 4 of the conceptualisation phase and steps 5 to 13 of the operational phase, will be discussed in more detail in the following sections.

6.2.1 RESEARCH DESIGN

Cooper and Schindler (2008:140) define a research design as the framework or blueprint for conducting a marketing research project. It specifies the details or the procedures necessary for obtaining the information needed to structure and/or solve marketing research problems. Malhotra (2004:74), Tustin et al. (2005:83) and Cooper and Schindler (2008:141) all concur that the research design typically involves the following components or tasks:

- Design the exploratory, descriptive, and/or causal phases of research.
- Design the data collection.
- Develop a sample plan.
- Construct and pre-test a questionnaire.
- Specify the measurement and scaling procedures.

Each of the components in the research design mentioned will now be discussed.

6.2.2 EXPLORATORY AND CONCLUSIVE DESIGN PHASES OF THE RESEARCH

In designing a research study, a significant decision is the choice of the research design, as it determines how the information will be obtained. Tustin et al. (2005:83) identify three research design types, namely exploratory research, descriptive research and causal research. Malhotra (2004:75) classifies the research design types into exploratory and conclusive research, the latter of which may be either descriptive or causal research designs. The Malhotra classification will now be discussed.

6.2.2.1 Exploratory research design

Exploratory research is characterised by flexibility and versatility with respect to the methods used, as formal research protocols and procedures are not employed. It rarely involves structured questionnaires, large samples or probability sampling plans (Malhotra, 2004:77). This type of research is used when searching for insights into the general nature of the problem, the possible decision alternatives and relevant variables that need to be considered.

Literature reviews and individual or group unstructured interviews are typical exploratory approaches. Exploratory research is useful for establishing priorities among research questions and for learning about practical problems in carrying out the research (Tustin et al., 2005:85). The literature study in chapters 2 to 5 reflects the exploratory phase of the study.

6.2.2.2 Conclusive research design

Conclusive research is research designed to assist the decision maker in determining, evaluating and selecting the best course of action to take in a given situation (Malhotra, 2004:75). Conclusive research is more formal and structured than exploratory research and can be classified into descriptive and causal research.

- *Descriptive research*, in contrast to exploratory research, is a type of conclusive research that has as its major objective the description of something, usually market characteristics or functions. Descriptive research is marked by a clear statement of the problem and specific hypotheses. Alternatively it is an unproven statement and detailed information is needed (Malhotra, 2004:78, 79). Descriptive research studies are constructed to

answer who, what, when, where and how questions. In descriptive research it is important to know or understand the underlying relationships of the problem area (Tustin et al., 2005:86). Descriptive research was used in the empirical phase of this study to investigate the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008).

- *Causal research* is a type of conclusive research with the major objective of obtaining evidence regarding cause-and-effect (causal) relationships. Like descriptive research, casual research requires a planned and structured design. The main method of causal research is experimentation (Malhotra, 2005:85).

A combination of exploratory research by means of the literature study, and conclusive research by means of the empirical survey, has been used in this study in order to complement each other. The data collection design will be discussed in more detail in the next section.

6.3 DATA COLLECTION DESIGN

The types and sources of information can be divided into secondary and primary data, which will now be discussed.

6.3.1 SECONDARY DATA

Secondary data are data that have already been collected (Burgess & Bothma, 2007:275). Malhotra (2004:37) defines secondary data as data collected for some purpose other than the problem at hand. It is easily accessible, relatively inexpensive and quickly obtained. Secondary data can be divided into internal and external data: internal secondary data are generated by an organisation in the course of its business activity, while external data are existing data obtained from sources outside the organisation. Three types of external secondary data are distinguished, namely syndicated data (data standardised on behalf of a syndicate of clients by a marketing research organisation), pooled data (standardised data that a number of interested organisations of equal status voluntarily submit to an independent, impartial organisation for processing and redistribution to the participating parties) and data

from other sources. Malhotra (2004:103) indicates that secondary data offer several advantages as they assist in

- identifying the problem
- defining the problem better
- developing an approach to the problem
- formulating an appropriate research design by identifying the key variables
- answering certain research questions and testing some hypotheses
- assisting to interpret the primary data more insightfully.

The internal and external secondary data collected in chapters 2 to 5 provide the background to this study. The literature study included a study of the theoretical foundations of international marketing strategies and competitiveness. In order for theory in chapter 2 and practice in chapters 3, 4 and 5 to meet, the aim was to capture the key characteristics of the global and the South African automotive industry. The major global trends and their associated risks impact on developing countries, such as South Africa. In order to understand the global dynamics, the evolution of the South African automotive industry in terms of its policy development, leading up to the rationale behind the implementation of the MIDP was studied. The achievements under the MIDP in terms of its objectives were then studied and outlined.

6.3.2 PRIMARY DATA

Primary research takes place when data are collected for specific research purposes (Burgess & Bothma, 2007:275). Malhotra (2004:37) defines primary data as data originated by the researcher specifically to address the research problem. Primary data may be qualitative or quantitative in nature:

- *Quantitative research* generally involves the collection of primary data from a number of individuals with the intention of projecting results onto a wider population. The aim is to generalise about a specific population based on the results of a representative sample of that population. The research findings may then be subjected to mathematical or statistical manipulation to produce broadly representative data of the total population and forecasts of future events under different conditions (Tustin et al., 2005:89).

- *Qualitative research* generates data that are frequently difficult to quantify. This research approach is often expressed as personal value judgements from which it is difficult to draw any collective general conclusions. Qualitative research seeks insights through a less structured, more flexible approach (ibid, 2005:90).

For the purposes of this study, secondary syndicated data, pooled data and data from other sources, as well as primary quantitative and qualitative data obtained from an empirical survey, were used. Given the relatively small pool of respondents, the research, however, could be classified as mainly qualitative research and the research type classified as descriptive due to the focus on in-depth interviews.

6.4 DEVELOPING A SAMPLING PLAN

The empirical survey was an important component of this study and was specifically tailored to tap into the experiences of the eight South African-based OEMs as well as 15 key industry stakeholders. The stakeholders included experts from government and labour as well as those key industry role-players representing the different constituents and automotive subsectors in South Africa.

Although Tustin et al. (2005:339-380) classify the sampling process into seven steps, Malhotra (2004:315-319) combines the sampling process into the following five steps, which will be discussed in more detail in the following sections:

- Define the target population.
- Determine the sampling frame.
- Select a sampling technique.
- Determine the sample size.
- Execute the sampling process.

6.4.1 TARGET POPULATION

According to Malhotra (2004:314) the objective of most marketing research projects is to obtain information about the characteristics of a population. A population is the aggregate of all the elements that share a common set of characteristics and that comprise the universe for the purpose of the marketing research problem. Information

about population characteristics may be obtained by taking a census or a sample. A census involves a complete enumeration of the elements of a population and is both time consuming and costly. A sample, on the other hand, is a subgroup of the population selected for participation in the study. The basic idea of sampling is that by selecting some of the elements in a population, conclusions may be drawn about the entire population (Cooper & Schindler, 2008:374). Compelling reasons for sampling include lower costs, greater accuracy of results, greater speed of data collection and greater availability of population elements. The validity of the sample, however, depends on two considerations, namely accuracy and precision.

Tustin et al. (2005:340) define the target population as a group of individuals who participate in a marketing research initiative. Through sampling processes, samples are generally designed to reflect an underlying audience, market or market segment.

For the purposes of this study the target population consists of all eight of the South African light vehicle manufacturers as well as 15 key industry role-players involved in the MIDP or representing constituents in the different subsectors in the South African automotive industry. The two groupings may be defined as follows:

The motor vehicle manufacturers (OEMs) consist of the eight light vehicle (passenger car and light commercial vehicle) manufacturers in South Africa, namely BMW SA (Pty) Ltd, Fiat Auto SA (Pty) Ltd, Ford Motor Company of Southern Africa (Pty) Ltd (incorporating Mazda), General Motors SA (Pty) Ltd, Mercedes-Benz SA (Pty) Ltd, Nissan SA (Pty) Ltd, Toyota SA Motors (Pty) Ltd and Volkswagen of SA (Pty) Ltd. With the exception of BMW SA (Pty) Ltd, all the OEMs are involved in commercial vehicle assembly activity as well. The OEMs may be further defined as follows:

- European-based OEMs – BMW SA (Pty) Ltd, Fiat Auto SA (Pty) Ltd, Mercedes Benz SA (Pty) Ltd and Volkswagen of SA (Pty) Ltd
- Japanese-based OEMs – Nissan SA (Pty) Ltd and Toyota SA Motors (Pty) Ltd
- US-based OEMs – Ford Motor Company of Southern Africa (Pty) Ltd and General Motors SA (Pty) Ltd

The key industry role-players consist of 15 stakeholders covering the broader automotive industry in South Africa and include representatives from the automotive industry associations:

- Academic, who is an MIDP specialist and consultant to the DTI for all three MIDP Reviews
- Automotive Industry Development Centre (AIDC)
- Automotive Industry Export Council (AIEC)
- Catalytic Converter Interest Group (CCIG)
- Department of Trade and Industry (DTI) Automotive Policy Division,
- Department of Trade and Industry (DTI) International Trade Administration Commission (ITAC)
- Econometrix (Pty) Ltd
- Joint Action Group for Automotive Leather Interiors (JALI)
- National Association of Automobile Manufacturers of South Africa (NAAMSA)
- National Association of Automotive Component and Allied Manufacturers (NAACAM)
- National Union of Metal Workers of South Africa (NUMSA)
- Retail Motor Industry Organisation (RMI)
- South African Automotive Benchmarking Clubs (BMAnalysts)
- South African Revenue Services (SARS)
- South African Tyre Manufacturers' Conference (SATMC)

The roles and responsibilities of the key industry stakeholders will be described in more detail in the section below.

6.4.2 SAMPLING FRAME

The sampling frame is closely related to the population and is the list of elements from which the sample is actually drawn (Cooper & Schindler, 2008:374). There are only eight OEMs in South Africa manufacturing passenger cars and light commercial vehicles. Three of the OEMs are also involved in medium commercial, heavy commercial and bus manufacturing as part of their domestic operations. Five of the OEMs are involved in in-house manufactured automotive components, which are the

automotive components manufactured by the OEMs in their respective manufacturing facilities. The eight OEMs are supported by over 400 automotive component manufacturers in South Africa in the supply chain, benefiting directly and indirectly from the MIDP. The sample size consists of a group of 23, comprising a representative of each of the eight OEMs and 15 key industry stakeholders.

The roles of the 15 key industry stakeholders are outlined below.

Business stakeholders

- **National Association of Automobile Manufacturers of South Africa (NAAMSA)** – The Association was established in 1935 and represents the collective, common interests of the new motor vehicle manufacturing industry in South Africa. NAAMSA comprises 19 companies involved in the production of cars and commercial vehicles which collectively employed 35 900 persons in 2008. NAAMSA also represents the interests of 22 companies involved in the importation and distribution of new motor vehicles in South Africa. In 2008 exports by members comprised R50,1 billion vehicles. In 2008 in the order of 85% of total automotive component exports of R44,1 billion were exported via the OEMs. In-house manufactured automotive component exports by the OEMs in 2008 amounted to R14,3 billion.
- **National Association of Automotive Component and Allied Manufacturers (NAACAM)** – The Association was established in 1980 to represent the automotive component manufacturers in South Africa. Membership consists of 190 national member companies with 240 regional manufacturing sites. The NAACAM members consist of 50% Tier 1 suppliers with the balance being Tier 2 and 3 manufacturers.
- **Automotive Industry Export Council (AIEC)** – The AIEC was established at the end of 1999 with the purpose of providing a central body to assist companies in the automotive sector that are currently exporting, may be interested in exporting in future, or may become capable of exporting in future. The AIEC is administered by the NAAMSA offices in Pretoria and represents the interests of the motor vehicle exporters/ manufacturers, as

well as exporters/ manufacturers of trucks and buses, and over 400 component suppliers in South Africa.

- **Catalytic Converter Interest Group (CCIG)** – The CCIG represents the interests of 30 companies in the catalytic converter value chain. Catalytic converters are the biggest automotive component exported. In 2008 South Africa supplied in the order of 15% of the global market for catalytic converters to the value of R24,2 billion or 55% of total automotive component exports.
- **South African Tyre Manufacturers' Conference (SATMC)** – SATMC represents the interests of the four tyre manufacturers in South Africa, of which three are multinational and one a South African company. Since 1995 tyres have been consistently one of the main automotive components exported under the MIDP.
- **Retail Motor Industry Organisation (RMI)** – The RMI represents the interests of the retail and motor trade side consisting of 13 constituent associations with 8 000 members comprising in the order of 195 000 employees in 2008.
- **Joint Action Group for Automotive Leather Interiors (JALI)** – The JALI represents the interests of the eight automotive leather companies comprising 90% of automotive leather interior exports from South Africa. Stitched leather seat parts were initially the main automotive component exported under the MIDP up to 1999 and since 2000 have consistently remained in second place behind catalytic converters.
- **Automotive Industry Development Centre (AIDC)** – The AIDC is an industry support centre established by government to assist the South African automotive industry in its quest for international competitiveness. The AIDC works in partnership with business, government departments and other organisations to invigorate economic development within the automotive industry. Its focus areas are skills development and training, supplier development and supply chain development. Establishing automotive supplier parks has become a specialist service.
- **Econometrix (Pty) Ltd** – Econometrix (Pty) Ltd provides economic analysis, forecasting, computer models and consultation to assist in decision making and business strategy, focusing on the South African

economy. Services cover the South African macro economy as well as industry analyses with a focus on several key sectors. As far as the domestic automotive sector is concerned, the service covers the analysis and projection of new vehicle markets. It provides forecasts of volumes and market shares by market segment, manufacturer and model range. It includes an economic scenario and an analysis of product planning intelligence. One of its main contributions is the calculation of the domestic automotive sector's GDP contribution to the economy annually.

- **South African Automotive benchmarking clubs (BMAnalysts)** – The three benchmarking clubs are located in KwaZulu-Natal, the Eastern Cape and Gauteng. There are 146 firms in the global competitiveness database against which firms can benchmark. The firm level competitiveness benchmarking analysis takes place annually comprising three integrated components: a customer benchmark, a like-with-like comparative benchmark and a supplier benchmark. These components allow B&M analysts to present an accurate, full value chain picture of the competitiveness of a company in terms of the ability to understand and meet customer demands and to match and exceed comparator/ competitor performance levels.

Government stakeholders

- **Department of Trade and Industry (DTI)** – The DTI Enterprise and Industry Development Division (EIDD) acts as custodian of the MIDP.
- **International Trade Administration Commission (ITAC)** – The ITAC, previously Board on Tariffs and Trade, is the DTI division responsible for amendment recommendations to the Customs and Excise Act, 1964, as well as the administration of the MIDP.
- **South African Revenue Services (SARS)** – The Customs and Excise division of SARS is responsible for the administration of the MIDP in respect of the reconciliation of the quarterly customs accounts of the OEMs in determining the levels of duty payable based on the IRCCs issued to companies.
- **Academic, government** – Professor Anthony Black is an Associate Professor and Director of the Business School at the University of Cape

Town. As consultant to the DTI, he was involved in the Motor Industry Task Group responsible for the introduction of the MIDP as well as the 1999, 2002 and 2005 MIDP Reviews.

Labour stakeholder

- **National Union of Metal Workers of South Africa (NUMSA)** – Numsa is the biggest metalworkers' trade union in South Africa with more than 260 000 members. It is an active affiliate of the Congress of South African Trade Unions (Cosatu), the biggest trade union federation in South Africa. NUMSA formed in 1987, merging five different unions, some of which had formed in the 1960s and 1970s. It is the biggest trade union (except in Eskom) in all national bargaining forums where it bargains. The Union represents the labour side of the domestic automotive industry in all forums involved in deliberations on policy and automotive related areas.

Automotive exports are channelled via a limited number of companies, most notably the eight OEMs. Exports are used as a mechanism to generate the IRCCs used to rebate import duties on CBUs and their original equipment automotive component requirements. The typical exporting link for automotive component companies involves the OEM parent companies demanding a certain portion of their global procurement from a first-tier supplier located in South Africa, with all IRCC benefits ceded to the OEMs' South African operations. Alternatively, the first-tier automotive component companies in South Africa sell products on an ex-works basis to the South African-based OEMs or Independent Vehicle Importers. The OEMs or Importers then take responsibility for exporting the product, thus keeping the IRCC benefit, but they are liable for the transport and logistics of landing the product in the foreign market (DTI, 2003a:26). In the Minutes of the Monitoring Committee of the Motor Industry Development Council (MIDC) of 25 March 2009, the ITAC, which is responsible for processing the IRCCs, reported that the distribution of IRCCs for 2008 comprised 85% to the OEMs, 14% to the Independent Importers and 1% to the automotive component manufacturers, which was in line with distribution in 2007 and in previous years.

The associations and the AIEC represent by and large 100% of MIDP eligible automotive product manufacturing companies in South Africa. The AIEC's database of

companies exceeds 400. Combined with the other associations, despite some overlapping of companies belonging to the AIEC and the other associations, the AIEC and the associations represent all the automotive companies operating in the South African automotive industry.

6.4.3 SAMPLING TECHNIQUE

Sampling techniques are broadly classified by Malhotra (2005:320) as non-probability and probability sampling. Non-probability sampling relies on the personal judgement of the researcher rather than chance to select samples. Probability sampling is a procedure in which each element of the population has a fixed probabilistic chance of being selected for the sample. This requires not only a precise definition of the target population, but also a general specification of the sampling frame. Tull and Hawkins (1993:543) define the sampling method in the way the sample units are to be selected and classify five choices:

- probability versus non-probability
- single unit versus cluster of units
- unstratified versus stratified
- equal unit probability versus unequal unit probability
- single stage versus multistage

In single-unit sampling each sampling unit is selected separately, while in cluster sampling the units are selected in groups (Tull & Hawkins, 1993:548).

A stratum in a population is a segment of that population having one or more common characteristics. The more homogeneous each stratum is with respect to the variable of interest, the smaller the sample required (Tull & Hawkins, 1993:549). The strengths of this sampling technique are that it includes all important subpopulations or strata and its precision. Weaknesses are that (Malhotra, 2005:331)

- it is difficult to select relevant stratification variables
- it is not feasible to stratify on many variables
- it is expensive.

As far as equal unit probability versus unequal unit probability sampling is concerned it is only when one has no reason to believe that the variation is different among the strata that one would take a proportional sample and thus give an equal chance of representation to each sampling unit (Tull & Hawkins, 1993:550).

The sampling units for this study consisted of unequal units but each had common characteristics and was sampled only once. The individuals were not selected randomly and the grouping is based more on clusters than stratification. The key industry stakeholder representatives consisted of the appointed representatives by their various constituents in the Motor Industry Development Council (MIDC). The OEM representatives consisted of the relevant MIDP specialists in their organisations. A non-probability, purposive sample was therefore used based on the expertise and knowledge of the specific representatives in the specific groups.

6.4.4 SAMPLING SIZE

The determination of the sample size is a rather complex issue involving both statistical and practical considerations (Malhotra, 2005:331). The statistical considerations include

- the degree of variability in the population
- the degree of precision associated with the population estimates based on the population
- the degree of confidence associated with any population estimates
- the extent to which the analysis will involve the use of subsamples for cross-clarification and/or the use of statistical techniques that require a minimum sample size to produce meaningful results.

The strata or segments of the population used as described below all have common characteristics and are homogenous in terms of their respective variables of interest.

The sampling units or subgroups participating in this study included:

- The eight OEMs, which all completed the survey.
- Fifteen key industry role-players, which all completed the survey

In total 23 completed responses out of the 23 targeted companies were received, representing a response rate of 100%.

6.4.5 EXECUTE THE SAMPLING PROCESS

The self-administered survey data were captured between June 2008 and September 2008. The surveys together with the covering letter were electronically mailed to or handed out to respondents. Respondents were requested to complete the surveys in their own time. The completed surveys were followed up with personal interviews. The completion of the self-administered surveys took in the order of 45 minutes to complete and the interview another 30 minutes.

6.5 CONSTRUCT AND PRE-TEST THE QUESTIONNAIRE

The main components of any questionnaire are questions and answers (Tustin et al., 2005:388). According to Tustin et al. (2005:415) surveys are designed to achieve four related goals, namely

- to maximise the relevance and accuracy of the data collected
- to secure participation and cooperation of target respondents
- to facilitate the collection and analysis of data
- to support analysis goals.

The covering letter and the questionnaire used in this study appear in Appendixes A and B, respectively. Careful consideration was given to the question content, wording, sequence and instructions to the respondent to obtain meaningful results. The questionnaire for collecting the data to achieve the objectives of the study was constructed with the assistance of professional UNISA staff. These include the Bureau for Market Research and Dr Marthi Pohl, Resident Statistician, Centre for Business Management, Unisa. The covering letter provided respondents with information about the questionnaire and the potential benefit to their individual companies and the South African automotive industry in general. An assurance of confidentiality in respect of company-specific information requested was also provided in writing.

6.5.1 QUESTION SEQUENCE

By arranging the questions logically the researcher enhances the standard of the responses, assists the respondent and induces a harmonious flow of thought in the questionnaire (Tustin et al., 2005:391). Often the content of one question assumes other questions have been asked or answered. Cooper and Schindler (2008:352, 353) indicate that the psychological order of the questions is also important as the question sequence can encourage or discourage commitment and promote or hinder responses. They suggest that questions should be arranged to minimise shifting in subject matter and frame of reference. The design of survey questions is influenced by the need to relate each question to the others in the survey. The basic principle used to guide sequence decisions is therefore that the nature and needs of the respondent must determine the sequence of questions to gain and maintain the respondent's cooperation.

The funnel approach is the procedure or technique of moving from general to more specific or wide-to-narrow questions (Tustin et al., 2005:411; Cooper & Schindler, 2008:353). The questionnaire in this study followed the funnel approach starting with general questions and then moving to the more sensitive company-specific demographic and classification questions towards the end, the latter to classify the respondents into various groups for the purposes of analysis.

6.5.2 QUESTION FORMAT

Malhotra (2004:289) and Cooper and Schindler (2008:336) classify two question formats, namely structured (closed-ended or fixed-alternative questions) and unstructured (open-ended questions). Tustin et al. (2005:393) also distinguish a third question format, namely semi-structured questions.

- *Unstructured questions* are open-ended questions that respondents answer in their own words. They are also referred to as free-response or free-answer questions and can provide the researcher with rich insights. Unstructured questions have a much less biasing influence on responses than structured questions. Disadvantages are that the coding of responses are costly and time consuming and depend on the articulacy of the respondent (Malhotra, 2004:289; Tustin et al., 2005:393).

- *Semi-structured questions* are mostly used in business-to-business marketing research where there is a need to accommodate widely differing responses from companies. They are also used when responses cannot be anticipated. Follow-up questions on the topic will result from the responses. The use of semi-structured questions is largely restricted to off-line and online in-depth interviews as well as focus group discussions (Tustin et al., 2005:393, 394).
- *Structured questions* specify the set of response alternatives and the response format. Questionnaires with structured questions and structured and/or unstructured responses are frequently used in marketing research and are all pre-formulated. For structured pre-formulated questions, responses can either be structured (pre-formulated) or unstructured (post-formulated). Structured responses to structured questions are pre-determined and are also known as closed-ended responses. However, structured questions could also elicit unstructured or open-ended responses. These responses allow for an answer in the respondent's own words. An example is where an alternative labelled "Other (please specify)" is added to a multiple-choice question. Closed-ended responses are distinguished into dichotomous, multiple-choice or scaled-responses.
    - A *dichotomous response* is the simplest form of a closed-ended response, which allows only two possible responses such as Yes/No. Dichotomous questions are the easiest type of question to analyse and code, but the response can be influenced by the wording of the question (Malhotra, 2004:291; Tustin et al., 2005:397). The questionnaire in this study contains three dichotomous questions, namely questions 2, 28 and 29.
    - A *multiple-choice or multichotomous question* is a fixed-alternative response but it offers more than two fixed-alternative responses. Respondents are requested to provide one alternative that correctly expresses their opinion or, in some instances, to indicate all the alternatives that apply. The response alternatives should include the set of all possible choices. The general guideline is to list all the alternatives that may be of importance and include an alternative labelled "Other (please specify)". The response alternatives should be mutually

exclusive. Advantages of multiple-choice questions are that they are easy to administer, coding and processing of data require less time and costs, and respondent cooperation is improved if the majority of questions are structured. Considerable effort is, however, required to design effective multiple-choice questions to determine the appropriate response alternatives and there is also the potential for order bias, which is a respondent‘s tendency to check an alternative merely because it occupies a certain position (Malhotra, 2004:290, 291).

- A *scaled question* is designed to measure the subjective properties of an object. Measurement means assigning numbers or other symbols to characteristics of objects according to certain pre-specified rules. What is measured is not the object but some characteristic of it (Malhotra, 2004:236). The term “scaling” refers to procedures for attempting to determine quantitative measures for subjective and sometimes abstract concepts. It is defined as a procedure for the assignment of numbers or other symbols to a property of objects to impart some of the characteristics of numbers to the properties in question. A scale is therefore a measurement tool. A primary advantage of scaled responses is that scaling permits the measurement of the intensity of respondents’ answers to multiple-choice questions (Tustin et al., 2005:400, 401).

There are various *types of scales*, each of which possesses different characteristics. The characteristics of a scale determine the scale’s level of measurement. There are four *primary scales of measurement*, namely nominal (categories), ordinal (rank order), interval (performance) and ratio (possesses all the properties of the other three primary scales including an absolute zero point) (Malhotra, 2004:236–241; Cooper & Schindler, 2008:303). The *scaling techniques* can be classified into comparative and non-comparative scales.

- *Comparative scales* involve the direct comparison of stimulus objects. Comparative scale data must be interpreted in relative terms and have only ordinal or rank order properties. In rank order scaling respondents are presented with several objects simultaneously and asked to rank them according to some criterion.

- In *non-comparative scales*, also referred to as metric scales, each object is scaled independently of the others in the stimulus set. The resulting data are generally assumed to be interval or ratio scaled. Non-comparative scaling is the most widely used scaling technique in marketing research and can be classified into continuous rating or itemised rating scales. The itemised rating scales can be further classified as Likert, semantic differential or Staple scales (Malhotra, 2004:242). The semantic differential is a four-point rating scale with endpoints associated with bipolar/opposite labels that have semantic meaning and translate a person's qualitative judgements into quantitative estimates (Burns & Burns, 2008:475, 476). The semantic differential is sufficiently reliable and valid for decision making and prediction in marketing and behavioural science. It is also statistically applicable to more than one group of subjects when applied to corporate image research. This makes it possible to measure and compare images held by respondents with diverse backgrounds. A disadvantage is a lack of standardisation. Researchers have, however, found that a four-point scale is the most satisfactory (Malhotra, 2004:259; Tustin et al., 2005:406). In the questionnaire for this study 10 questions were scaled questions. These were questions 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14.

The format of the questions used in the questionnaire for this study is summarised in Table 6.2 below.

Table 6.2: Format of questions in the questionnaire

Type of question	**Questions in questionnaire**
Unstructured questions (open ended)	Questions 15 and 16 Questions 5, 11, 12, 13, 14 and 27 include an unstructured response labelled "Other (please specify)"
Structured questions: 1) Dichotomous questions 2) Scaled questions	 1) Questions 2, 28 and 29 2) Questions 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14

6.5.3 QUESTIONNAIRE INSTRUCTIONS

Instructions to the respondents attempt to ensure that all respondents are treated equally, thus avoiding building error into results. Two principles form the foundation for good instructions, namely clarity and courtesy. In a self-administered questionnaire, instructions must be contained within the questionnaire (Cooper & Schindler, 2008:354). The questionnaire used in this study contained instructions within the questionnaire itself.

6.5.4 PHYSICAL CHARACTERISTICS OF THE QUESTIONNAIRE

The appearance and layout of the questionnaire are of particular concern. The questionnaire should not create the impression of being over long, but its layout should allow sufficient space for recording the information (Tustin et al., 2005:410, 411). The questionnaire for this study was divided into different parts to make it more structured and to simplify the analysis of information. The layout provided sufficient space for easy reading and for providing the responses. All the questions were precoded. The following sections can be identified in the questionnaire:

Part A. Questions 1 to 4 deal with general information as well as perceptions of the South African light vehicle manufacturers' general business operations.

Part B. Questions 5 to 11 deal with the respondent's quantitative views in respect of marketing aspects impacting on the South African OEMs' light vehicle export strategies.

Part C. Questions 12 to 16 deal with the respondent's quantitative and qualitative views in respect of strategic aspects impacting on the South African OEMs' light vehicle export strategies.

Part D. Questions 17 to 29 deal with the demographic details of the South African-based OEMs' company.

Part E. Question 30 deals with the contact details of the respondent.

The questionnaire concluded with a note of appreciation to the respondent for participating in the survey as well as the relevant contact details for the return of the questionnaires.

6.5.5 PRE-TESTING OF THE QUESTIONNAIRE

Extensive pre-testing was not required because the questionnaire was based on inputs from the Bureau for Market Research, Unisa and Dr Marthi Pohl, Resident Statistician, Centre for Business Management, Unisa and the questions were in line with the objectives of the study. The survey, however, was pre-tested by two respondents with the aim of establishing the time taken to complete the survey, the ability to understand the survey layout, the wording, the sequence of questions and instructions, as well as the level of interest in the study. The feedback received was very positive on all aspects of the survey.

6.6 RELIABILITY AND VALIDITY OF THE RESEARCH

Reliability refers to the extent to which a scale produces consistent results if repeated measurements are made on the characteristic. Validity may be defined as the extent to which differences in observed scale scores reflect true differences among objects on the characteristic being measured, rather than systematic or random errors (Malhotra, 2004:267, 269; Cooper & Schindler, 2008:289).

Measurement is a number that reflects some characteristics of an object. A measurement is not a true value of the characteristic of interest but rather an observation of it. A measurement error is the variation in the information sought by the researcher and the information generated by the measurement process employed. A systematic error affects the measurement in a constant way and represents stable factors that affect the observed score in the same way each time the measurement is made. A random error is a measurement that arises from random changes or differences in respondents or measurement situations (Malhotra, 2004:266, 267).

Properly conducted sample surveys yield useful estimates but not exact values. Errors may arise from sampling errors and non-sampling errors. The nature and scope of these general error types are discussed below.

6.6.1 GENERAL ERROR TYPES

Errors occur when the sample selected is not perfectly representative of the population. Errors fall into three basic categories, namely errors of definition, estimation and explanation (Tustin et al., 2005:375–379):

- *Errors of definition* occur when the precise definition of the problem is not defined and associated variables are then not determined correctly.
- *Errors of estimation* include sampling errors, administrative errors, selection errors, non-response errors and sample frame errors.
  - *Sampling errors* consist of administrative errors and random errors.
  - *Administrative errors* relate to problems with the administration or execution of the sample, while random errors are caused by chance and cannot be avoided, but only minimised by increasing the sample size.
  - *Selection errors* occur when deciding on the way in which sample elements will be selected.
  - *Non-response errors* occur when sample elements are unavailable or unwilling to participate in the survey.
  - *Sample frame elements* occur when duplicate or foreign elements are present in the sample frame or when all the elements have not been included.
- *Errors of explanation* occur when a researcher makes an inappropriate inference about a cause–effect relationship. Measurement errors also occur as errors of explanation and include respondent errors, questionnaire design errors and coding and data capturing errors.

6.6.2 CENTRAL EDITING

The questionnaire data were captured and processed by Dr Marthi Pohl, Resident Statistician, Centre for Business Management, Unisa from September 2008 to December 2008. The completed questionnaires of this study were carefully edited so as to ensure the completeness and reliability of the data. Errors were referred back to the researcher for follow-up action and correction.

6.6.3 CODING

Items were pre-coded in the questionnaire. Pre-coded items were captured directly from the questionnaire.

6.6.4 TABULATION

Tabulation was done using Statistical Package for Social Sciences (SSPS) and Excel computer programs. Various statistical analyses were conducted on the data in order to facilitate a discussion of the research results. Cross-tabulations were also used to determine the effect of certain independent variables on certain dependent variables.

6.6.5 VALIDATION

According to Burns and Burns (2008:425) and Cooper and Schindler (2008:289) validity is the extent to which a test measures what one actually wishes to measure. The validity of the empirical survey findings can be measured by comparisons with secondary sources as discussed in chapters 3, 4 and 5. Extensive comparisons were thus made with published data and trends captured over the past 13 years up to 2008 since the implementation of the MIDP in September 1995.

The aim of the study was to obtain the responses and perceptions of South African light vehicle manufacturers (OEMs) and key industry stakeholders of the domestic automotive value chain. The respondents forming part of the empirical survey represent all the constituents in the manufacturing of CBUs, including the Independent Importers and Distributors of vehicles, automotive component manufacturers, a labour representative and government officials representing the national interests of the automotive industry.

6.7 DATA ANALYSIS

Table 6.3 reflects the technique of matching the relevant questions in the survey to the primary and secondary objectives. The primary objective of the study aims to analyse the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008). The primary objective of this study is informed by specific questions as well as by the questions relating to the demographic details of the eight OEMs. The secondary objectives aim to support the primary objective, as it

is generally believed that without the MIDP the secondary objectives would have been irrelevant. The MIDP is generally regarded as the key driver of the positive developments in the domestic automotive industry and the secondary objectives are therefore closely related and interlinked with the primary objective of the study. As part of the descriptive analysis various questions inform several of the secondary objectives as a result of their interrelationship. The questions will be matched against the primary and secondary objectives to inform the hypotheses that need to be tested.

Table 6.3: Matching the survey questions to the primary and secondary objectives

Objectives	Related questions
To analyse the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008)	No 2, 3, 4, 5, 6, 15, 16 17–29 (demographic)
To determine whether the main focus of the South African OEMs' domestic light vehicle production is being aimed at the domestic market or exports	No 3, 20, 21
To determine whether a few concentrated or multiple export markets are preferred for South African OEMs' light vehicle exports	No 4, 22
To determine the impact of the SA-EU free trade agreement and AGOA trade arrangement on the generation of export business for South African OEMs	No 7, 8, 14
To determine the importance of the image of South African OEMs in respect of reliability of supply, quality and cost competitiveness of their South African manufactured light vehicle exports in penetrating new export markets	No 5, 9
To determine the South African OEMs' level of influence in decision-making in terms of determining new export destinations for their South African manufactured light vehicles	No 10, 23, 24
To determine the most important constraint factor impacting on market access to foreign markets for South African manufactured light vehicles	No 11, 2, 24, 25, 26
To determine the most important determinant of foreign-market pricing in setting the export price for South African manufactured light vehicles	No 12, 24, 25, 26, 27, 28, 29
To determine the most important criterion for selecting export destinations for South African manufactured light vehicles	No 10, 13, 23, 24, 28, 29
To determine the most important factor contributing to an increase in South African manufactured light vehicle exports	No 3, 4, 6, 9, 12, 13, 14, 15, 17, 20, 21, 22, 25, 26, 27, 28, 29
To expand and collate the existing body of theory and knowledge in respect of the South African-based OEMs' full integration into the global networks of their OEM parent companies	No 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16
To expand and collate the existing body of theory and knowledge relating to key economic sectors by recognising their synergies with the automotive value chain	No 5, 7, 8, 9, 10, 11, 12, 13, 14
To identify potential areas for further research based on the quantitative and qualitative research done for this study.	No 7, 8, 9, 10, 11, 12, 13, 14

The purpose of data analysis is to interpret and draw conclusions from the mass of collected data (Tustin et al., 2005:102). Various statistical analyses in the form of tabulation will be conducted on the data using SSPS and Excel computer programs in

order to facilitate a discussion of the research results. Tables will be used to represent the findings in the survey and cross-tabulations will also be used to determine the effect of certain independent variables on certain dependent variables. The mean value rating is used and represents that value obtained by summing all the values in a set and dividing the answer obtained by the number of elements. The mean makes full use of all the data available in that its calculation is based on all the individual data values (Malhotra, 2004:430, 431; Tustin et al., 2005:538–540; Burns & Burns, 2008:125). A cross-tabulation is a statistical technique that describes two or more variables simultaneously and results in tables that reflect the joint distribution of two or more variables that have a limited number of categories of distinct values (Cooper & Schindler, 2008:459). Where relevant, the frequency tables will be further analysed in order to determine more detailed relationships based on a breakdown of the respondents. The breakdown will be categorised by OEMs responses and key industry stakeholder responses. Possible relationships identified on the basis of the demographic details of the OEMs will also be analysed. The frequency tables will be supported by a descriptive analysis based on processed responses captured from the empirical survey, and on the literature study, while hypothesis testing will also be used.

The purposive sampling technique used in this study is a type of non-probability sampling that is most effective when one needs to study a certain domain that includes knowledgeable experts. The purposive sampling technique is an inherently biased method and interpretations should not be applied beyond the sampled population when analysing data and interpreting results (Burns & Burns, 2008:205, 206; Cooper & Schindler, 2008:395–399). Twenty-three individuals (informants) represent the total domain under study. Non-parametric techniques were applied as they are distribution free, apply to ordinal data and are applicable to small samples.

The different techniques used extensively in parts 2, 3 and 4 of chapter 7 include the Mann-Whitney U test, the Kruskal-Wallis one-way analysis of variance by ranks test and the Spearman's rank-order correlation coefficient.

The Mann-Whitney U test is a non-parametric test for assessing whether two independent samples of observations come from the same distribution. This test is

used to determine whether a statistically significant difference exists between the two groups for the factor in question. The results are called statistically significant if they are unlikely to have occurred by chance. "A statistically significant difference" simply means there is statistical evidence that there is a difference. It does not mean the difference is necessarily large, important or significant in the common meaning of the word. The significance level of a test is defined as the probability of making a decision to reject the null hypothesis when the null hypothesis is actually true (a decision known as a Type 1 error). If the p-value is less than the significance level ($\alpha = 0.05$), then the null hypothesis is rejected (Burns & Burns, 2008:269–271; Cooper & Schindler, 2008: 660–662).

The Kruskal-Wallis one-way analysis of variance by ranks is a non-parametric method of testing the equality of population medians among groups. It is an extension of the Mann-Whitney U test to three or more groups (Burns & Burns, 2008:315; Cooper & Schindler, 2008:662, 663).

The Spearman's rank-order correlation coefficient was used in the data analysis to provide the strength of the relationship between factors rated by the selected groups. According to Tustin et al. (2005:637, 638), if the researcher is dealing with a situation in which both variables are ordinal, the strength of the association can be investigated as well as its direction. Spearman's rank-order correlation coefficient is an appropriate measure of association in this case, as it ranges from –1 to +1, with those values close to zero indicating little or no association between the variables concerned. Moreover, its sampling distribution under the null hypothesis is known and therefore the researcher can test for significance (Burns & Burns, 2008:354–357; Cooper & Schindler, 2008: 534, 537).

The literature review, the Mann-Whitney U test, the Kruskal-Wallis one-way analysis of variance by ranks test and the Spearman's rank-order correlation coefficient were used in the empirical research analysis to test the following hypotheses, which will be discussed in chapter 8:

- **Hypothesis 1:** There is a general agreement between the selected groups on the importance of government support in the form of the MIDP to sustain the automotive industry in South Africa.
- **Hypothesis 2:** There is a general agreement between the selected importance rating groups related to the South African OEMs' image in respect of reliability of supply, quality and cost competitiveness for each of the factors contributing to an increase in their light vehicle exports.
- **Hypothesis 3:** There is a general agreement between the selected level of influence groups related to the South African OEMs' level of decision-making power in determining new export destinations for the factors that could contribute to an increase in their light vehicle exports.
- **Hypothesis 4:** There is a general agreement between the selected demographical groups regarding the importance of constraint factors on access to foreign markets for South African manufactured light vehicles.
- **Hypothesis 5:** There is general agreement between the selected demographical groups regarding the importance of the determinants of foreign-market pricing in setting the export price for South African manufactured light vehicles.
- **Hypothesis 6:** There is general agreement between the selected demographical groups regarding the importance of selection criteria when selecting export destinations for South African manufactured light vehicles.
- **Hypothesis 7:** There is general agreement between the selected demographical groups regarding the importance of factors contributing to an increase in South African manufactured light vehicle exports.

A detailed analysis and discussions of all the data collected in the survey will follow in chapter 7. The hypotheses, as outlined above, will be discussed in chapter 8 to further substantiate the objectives achieved, the conclusions reached and the recommendations made.

6.8 SUMMARY OF CHAPTER 6

Chapter 6 covered the research methodology used for purposes of this study to investigate the impact of the MIDP on the export strategies of the South African light

motor vehicle manufacturers. (1995–2008). The steps in the marketing research process outlined in the chapter included the conceptualisation phase and the operational phase. The research design was defined on the basis of the research problem and the objectives forming part of the conceptualisation phase, as discussed in chapter 1. The operational phase covered the steps for obtaining the research information via the exploratory phase using secondary data, and the conclusive phase, via an empirical survey to obtain primary data. The details of different steps, from constructing to pre-testing the questionnaire, were discussed in respect of collecting the relevant data from the respondents for the purposes of this study. The questionnaires were duly completed by the target population and the last two steps of the research process, namely analysing the data, and the conclusions and recommendations, will be discussed in chapters 7 and 8.

CHAPTER 7: ANALYSIS OF SURVEY FINDINGS

7.1 INTRODUCTION

The research methodology used to investigate the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008) was discussed in chapter 6. The data were collected by means of a structured questionnaire and follow-up interviews, which were completed by 23 respondents. As described in chapter 6, the aim was to tap into the direct experiences of the South African OEMs as well as the representatives representing the various constituents of the domestic automotive industry value chain. Several questions were identified in chapters 2 and 5 to be included in the empirical survey forming part of this study. The aim is to establish how theory meets practice in the South African automotive industry context. The responses to the questions, as analysed below, relate to and aim to answer the primary and secondary objectives of this study, as outlined in chapter 1.

In this chapter, the next step of the marketing research process, namely the analysis of the research results, is presented. The research results will be analysed according to the sequence of the empirical survey. A further analysis of the data, consisting of various cross-tabulations, will follow.

7.2 QUESTIONNAIRE: PART A: GENERAL

Part A of the questionnaire, covering questions 1 to 4, dealt with the respondents' general information as well as perceptions of the South African light vehicle manufacturers' general business operations.

Question 1 was used to determine the breakdown of the respondents.

The 23 respondents forming part of the empirical survey include the eight South African light vehicle manufacturers (or 34,8% of the respondents) and 15 key industry stakeholders (or 65,2% of the respondents).

The eight OEMs operating in South Africa consist of the four European-based OEMs, the two Japanese-based OEMs and the two US-based OEMs. In August 2007, the Fiat Auto SA (Pty) Ltd contractual arrangement with Nissan SA (Pty) Ltd came to an

end with the final vehicles being produced in 2008. Since 2008 Fiat has been operating as an independent importer of CBUs into the country. For the purposes of this study Fiat Auto SA (Pty) Ltd was still regarded as a South African light vehicle manufacturer. As the study focuses on the impact of the MIDP on the export strategies of the OEMs since September 1995 when the programme commenced, the information obtained from Fiat is relevant.

The 15 key industry stakeholders consist of one labour representative, four government representatives and ten business representatives. The stakeholders do not represent individual companies and were therefore not requested to respond to the demographic, OEM-specific questions in Part D of the questionnaire covering questions 17 to 29.

For ease of reference, the eight light motor vehicle manufacturers will be referred to as the *OEMs* and the 15 key industry stakeholders will be referred to as the *stakeholders*.

Question 2 dealt with whether the automotive industry in South Africa is capable of coping with global competition without MIDP support.

All eight OEMs and all 15 stakeholders (100%) stated that the South African automotive industry would not be able to cope with global competition without MIDP support. This is *inter alia* owing to the limited size and scope of the domestic manufacturing capability and the relatively small target market for these products in South Africa.

The MIDP plays a multifunctional role in the South African automotive industry. As discussed in chapter 5, the programme is regarded as a trade, economic, financial and social instrument based on its contribution to the South African automotive industry. “Trade” relates to the improvement in international competitiveness of the domestic automotive industry; “economic” relates to the enhancement of exports in respect of the country’s trade balance; “financial” relates to the attraction of investments; and “social” relates to the maintenance and creation of employment as well as BBBEE-related issues.

Chapter 5 emphasised the fact that the South African automotive industry lacks the attributes of a big emerging market, is not on the periphery of a major market and is not part of a significant trading bloc. However, the 14-member SADC has growth potential for the industry as the integration of the region will result in a free trade area. Automotive exports to the region from South Africa grew to R6,07 billion in 2008 from R3,9 billion in 2007.

The abovementioned attributes, or rather lack of them, have implications for the way South Africa is perceived by the major global decision makers. This relates to the way global decision makers choose to position the South African motor industry within their global networks. Export contracts are becoming increasingly difficult to keep because global OEMs are sizing up the strength and weaknesses of their plants around the world, which is likely to have a major effect on allocating production globally. Access to light vehicle export contracts entails very demanding requirements, which would normally entail further investment, support and assistance by the relevant OEM parent companies. The OEMs also have a major influence on their suppliers, which generally follow the investments by OEMs by setting up plants close to them.

The respondents reiterated that distance to the main markets and thus the ability to offset logistics costs is a main reason for the dependence of the domestic automotive industry on the support of the MIDP. The respondents revealed that the OEM parent companies apply a cost-parity exercise in order to determine which subsidiary will be awarded a new generation model investment. In a South African context the MIDP's benefit is based on local content. The higher the local content in the exported light vehicles, the higher the benefit used to offset the import duties on vehicles and original equipment components. The MIDP therefore encourages the OEMs to source components in South Africa to maximise the benefit under the MIDP in order to achieve duty neutrality. The relatively small domestic market, however, hampers the viability of investments in the country. The MIDP's support structure, as described in chapter 4, is therefore imperative for exerting leverage when attempting to convince multinationals to consider South Africa as a favourable export-oriented, investment location.

Question 3 dealt with the respondents' views on whether the domestic market or the export market is considered to be the main focus of the OEMs in respect of their light vehicle production.

Table 7.1 reveals that the majority of the respondents, 12 or 60,0%, stated that the main focus for South African light vehicle manufacturers' vehicle production is exports.

Table 7.1: South African light vehicle manufacturers' main focus for their vehicle production

	Stakeholders		OEMs		Total	
	N	%	N	%	N	%
Domestic market	6	50,0	2	25,0	8	40,0
Exports	6	50,0	6	75,0	12	60,0
Total	12	100,0	8	100,0	20	100,0

(*stakeholders' and total numbers differ due to multiple choices by three respondents)

OEMs

- Table 7.1 reveals that six or 75% of the eight OEMs have exports as their main focus. The OEMs involved in major export programmes as well as the ones aiming to increase light vehicle exports focus on exports in order to obtain economies-of-scale benefits through higher volumes. For two or 25% of the OEMs – one European-based OEM and one Japanese-based OEM – the main focus is the domestic market. Both companies sell more vehicles in the domestic market than they export. The European-based OEM was a domestic market leader with a 21% market share in the passenger car segment in 2008, while the Japanese-based OEM had a relatively small domestic light vehicle market share of 6% in 2008.

Stakeholders

- Table 7.1 further reveals that for six or 50% of the stakeholders the main focus is exports and, for the same number, the main focus is the domestic market. Three stakeholders – two from business and one from government – stated that *both* the export and domestic market are equally important and this is the reason for the 12 responses from the 15 stakeholders.
- For six stakeholders – one from labour, two from government and three from business – the main focus is exports. The business stakeholders representing

the main exporting sectors regard exports as the main focus. The stakeholders from government and labour perceived the export function more holistically, seeing the economies-of-scale benefits achieved from exports as important in view of the small domestic market.

- For six stakeholders – five from business and one from government – the domestic market is the main focus of South African light vehicle manufacturers' vehicle production. The business stakeholders in the component supply and retail sectors, representing the OEM support sector, regard the domestic market as more important than exports, as exports are secondary in respect of their supply function. The stakeholders stated that a sound domestic market is important to support successful export programmes. They also stated that a large portion of the OEMs' turnover is generated from vehicle financing, new and used vehicle sales, servicing and sales of parts and accessories. In addition, some OEMs are involved in medium and heavy commercial vehicle and bus manufacturing.

Chapter 5 highlighted the fundamental shift towards exports that has occurred in the South African automotive industry since the introduction of the MIDP. Prior to the introduction of the MIDP, industry growth was directly linked to growth in the domestic market; however, since the introduction of the MIDP automotive exports have become a major growth area. The period since 1998 has seen the domestic production of light vehicles become delinked from the growth in the domestic market. The successful implementation of light vehicle export programmes by the German-based OEMs has broken ground for the manufacturing of higher-volume models. Exports have enabled these OEMs to make a greater contribution to their OEM parent groups by increasing market share in South Africa by rebating the import duties on imported models to complement their domestic model mixes; in addition, the import duties on their original equipment component requirements can be offset by exports. As highlighted in chapter 5, under the MIDP the major exporting OEMs have also achieved much higher levels of profitability than the industry average.

Although vehicle production increased to a record 587 719 units in 2006 and to 575 050 units with 19 different models produced in 2007, as discussed in chapter 5, the volumes remained relatively low in global terms. Since the domestic market is too

small to sustain viable light vehicle manufacturing, exports are imperative for the OEMs to achieve the relatively high volumes needed to justify investment in manufacturing operations. Minimising duty payments under the MIDP can be achieved in four ways. It can be minimised (1) by limiting vehicle imports; (2) by increasing local content in domestically manufactured vehicles; (3) by undertaking specified investments which qualify under the PAA; or (4) by expanding exports, both of vehicles and automotive components. These considerations have had a decisive effect on the strategic choices made by domestic OEMs. The structure of the MIDP is such that it has been easier to generate exports than to develop high local content in domestically manufactured vehicles. Exports, initially of automotive components in the early stages of the MIDP, but later including CBUs, were the main strategic choice adopted by the OEMs to minimise duty payments in the face of increasing imports.

Increasingly evident from the interviews with respondents in respect of automotive exports from South Africa under the MIDP is the collaboration and collective action by individual firms, government and key industry stakeholders. Generally, the automotive component companies and the OEMs operating in the domestic market are more likely to find themselves in competition with each other than cooperating. This is as a result of the relatively small size of the domestic automotive market. However, now that the South African automotive industry has been integrated into the global automotive environment, there is collective action to raise the domestic automotive industry's prominence worldwide in respect of its capabilities and the positive developments achieved under the MIDP since 1995.

Question 4 dealt with the respondents' views on whether a few concentrated export markets or multiple export markets are more important for South African light vehicle manufacturers in terms of their light vehicle exports.

Table 7.2 reveals that the majority of respondents, 18 or 78,3%, stated that a few concentrated markets are more important than multiple export markets.

Table 7.2: A few concentrated versus multiple export markets

	Stakeholders		OEMs		Total	
	N	%	N	%	N	%
A few concentrated export markets	11	73,3	7	87,5	18	78,3
Multiple export markets	4	26,7	1	12,5	5	21,7
Total	15	100,0	8	100,0	23	100,0

OEMs

- For seven or 87,5% of the OEMs a few concentrated export markets are more important than multiple export markets for their light vehicle exports. The OEMs involved in major light vehicle export programmes focus on a few concentrated markets to obtain economies-of-scale benefits in the area of logistics costs. The preferences of the OEM parent companies in selecting export destinations are the main consideration. Despite focusing on a few concentrated markets, many of the OEMs, however, capitalise on additional export opportunities, mainly into various African markets. One US-based OEM regards multiple export markets as more important than a few concentrated markets, as the profile of its vehicle production platforms allows it to focus on multiple markets. This OEM is also the only one with the scope to select export destinations together with its parent company.

Stakeholders

- For 11 or 73,3% of the stakeholders – nine from business and two from government – a few concentrated export markets are more important than multiple export markets. The 11 stakeholders reiterated the benefits of economies of scale in the area of logistics costs, seizing opportunities presented by the trade arrangements with the EU and the USA as well the preferences of the OEM parent companies.
- For four stakeholders – one from labour, two from government and one from business – multiple export markets are more important than a few concentrated markets. The respondents stated that the exporters' risk would be spread by focusing on multiple export markets. They also felt that increasing opportunities exist in emerging markets as not all OEMs benefit from the SA–EU free trade agreement and the AGOA trade arrangement.

When the MIDP was introduced, exports were mainly restricted to SADC countries. The limited export markets at the time could be attributed to licence agreement restrictions, OEM domestic ownership issues and lack of integration into the global networks of OEM parent companies. In 2008 the domestic OEMs exported CBUs to 79 country destinations of which 22 were right- and 57 left-hand drive (as discussed in chapter 5). Despite the large number of export markets involved, the USA, Japan, Australia and the EU accounted for 63% of the light vehicle export volume from South Africa in 2008. The developed and mature markets therefore consumed the bulk of the country's major premium manufactured light vehicle export programmes, although exports are increasingly growing in the direction of new export markets.

7.3 QUESTIONNAIRE: PART B: MARKETING

Part B of the questionnaire covers questions 5 to 11, and dealt with the respondents' quantitative views in respect of marketing aspects impacting on the South African OEMs' light vehicle export strategies. The Likert scaling methodology was used to formulate four-point scales for questions 5 to 10.

Question 5 dealt with descriptive statistics and requested respondents to rate the value of the MIDP in the global automotive environment for the South African OEMs since its implementation in 1995.

Table 7.3 reveals that the respondents generally perceive the MIDP to have high value in generating light vehicle exports, in generating automotive component exports and in attracting investments in vehicle plants in South Africa.

Table 7.3: The value of the MIDP in the global automotive environment for South African light vehicle manufacturers (OEMs and stakeholders)

OEMs								
	No value		Low value		Medium value		High value	
Value of MIDP to	1		2		3		4	
	N	%	N	%	N	%	N	%
Generate light vehicle exports							8	100,0
Generate automotive component exports			1	12,5	1	12,5	6	75,0
Attract investments in vehicle plants in SA				1	12,5		7	87,5
Stakeholders								
	No value		Low value		Medium value		High value	
Value of MIDP to	1		2		3		4	
	N	%	N	%	N	%	N	%
Generate light vehicle exports					2	13,3	13	86,7
Generate automotive component exports					3	20,0	12	80,0
Attract investments in vehicle plants in SA			1	6,6	7	46,7	7	46,7

OEMs

- For eight or 100% of the OEMs the MIDP has a high value of 4 on the 4-point scale in generating light vehicle exports. All the OEMs emphasised the light vehicle export performance under the MIDP. In particular the record vehicle exports in 2008 were stated as a case in point.
- For six or 75% of the OEMs the MIDP has a high value of 4 in generating automotive component exports. The OEMs stated that the exporting link in their relationships with the first-tier multinational suppliers for the majority of automotive component manufacturers in South Africa was the South African-based OEMs and their parent companies. One US-based OEM indicated a medium value of 3 and one European-based OEM a low value of 2 on the 4-point scale for the MIDP in generating automotive component exports. The medium and low values reflect the decline in demand for the specific component categories included in their respective export strategies to generate IRCCs.
- For seven or 87,5% of the OEMs the MIDP has a high value of 4 on the 4-point scale to attract investments in their vehicle plants locally. The OEMs stated that increased competition places pressure on them to increase vehicle production

in order to reduce unit costs. Economies of scale in production are therefore important, which, in turn, requires the parent company to create export opportunities for them and invest accordingly. Investments are therefore required to expand, upgrade and sustain future vehicle production in order to maintain market share and viability. One European-based OEM indicated a low value of 2 on the 4-point scale for the MIDP in attracting investment in the local vehicle plant. The company's production alliance with another OEM was finally dissolved in August 2007. The fact that the parent company decided to make no further investment was a direct result of the delay in finalising the 2005 MIDP Review at the time.

- Three OEMs rated three other aspects of the MIDP at a high value of 4 on the 4-point scale. These are "ensuring long-term sustainability for local production", "to offset import duties" and "to maintain employment levels". One OEM rated another aspect of the MIDP at a low value of 2 on the 4-point scale towards "increased local component production". The MIDP thus adds other values for the OEMs as well in respect of their domestic business operations.

Stakeholders

- For 13 stakeholders or 86,7%, the MIDP has a high value of 4 on the 4-point scale for generating light vehicle exports for the South African OEMs. These stakeholders reiterated the success of light vehicle exports under the MIDP. For two stakeholders the MIDP has a medium value of 3 on the 4-point scale. The two stakeholders stated that the phasing down of the export benefits under the MIDP up to 2102 would impact negatively on generating increased export business.
- For 12 stakeholders or 80%, the MIDP has a high value of 4 on the 4-point scale in generating automotive component exports for the South African OEMs. The stakeholders stated that automotive component exports were the driving force behind the country's automotive export performance from 1995 to 2007. The two stakeholders from business and one from government, indicating a medium value of 3 on the 4-point scale, believe that the benefits of automotive component exports are skewed towards selected components only. The majority of automotive component categories do not benefit as much.

- For seven stakeholders or 46,7%, the MIDP has a high value of 4 on the 4-point scale in attracting investments in vehicle plants locally. The seven stakeholders stated that the OEMs have benefited substantially from investments in respect of the PAA under the MIDP for export-oriented, new generation model investments. The eight stakeholders indicating a medium value of 3 and a low value of 2 on the 4-point scale for the MIDP in attracting investments reiterated the sentiment that more attractive incentives and support packages are available in the domestic industry's competitor countries. In addition, these countries are much closer to the developed markets and thus also have a benefit in respect of savings on logistic costs.
- One stakeholder rated one other aspect of the MIDP at a high value of 4 on the 4-point scale towards "growing employment". Three stakeholders rated three other aspects of the MIDP at a medium value of 3 on the 4-point scale for "stimulating viable local content", "earning foreign exchange" and "advancing the industry's competitiveness". The stakeholders thus also regard the MIDP as having impacted positively on other areas of the South African-based OEMs business operations.

Figure 7.1 reveals that the most important value of the MIDP for the OEMs in the global automotive environment is to generate light vehicle exports, then to attract investments in vehicle plants locally and then to enhance automotive component exports. For the stakeholders the most important value of the MIDP was to generate light vehicle exports, then to generate automotive component exports and then to attract investments in vehicle plants locally.

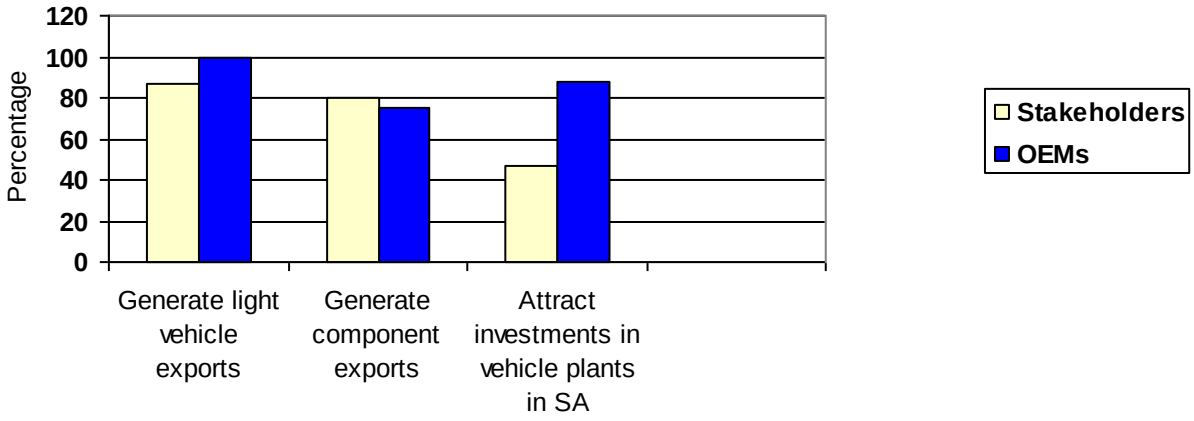

Figure 7.1: Value of the MIDP

As discussed in chapter 5, South African manufactured vehicle exports grew by nearly 1 700% in unit terms and 3 066% in nominal value terms between 1995 and 2008. Automotive component exports grew by 1 228% in nominal value terms in the same period. The productive asset allowance (PAA), the automotive-specific investment incentive, was introduced as part of the 1999 MIDP Review and has contributed to the objective of model rationalisation, improved economies-of-scale benefits, and the sound financial returns achieved in the domestic market. Investment in South African automotive production capacity has arisen directly as a result of the export opportunities offered by the MIDP: the MIDP has thus leveraged investment and access to export markets. The stakeholders, although recognising that the investments in vehicle plants have been significant in a South African context, stated that the investments are insignificant in comparison to the huge investments attracted by the other emerging automotive markets. These emerging markets have the benefit of large domestic markets or are in close proximity to the main export markets of the Triad countries. In addition, more attractive incentive and support packages are available in these countries, as highlighted in chapter 5.

Question 6 requested respondents to rate the dependence of the South African OEMs and the South African automotive industry on future government support in the form of the MIDP or a new support programme.

Table 7.4 reveals that there is strong consensus by the OEMs and the stakeholders on the continued dependence on future support in the form of the MIDP or new support programme, and in consequence, on continued government support.

Table 7.4: The dependence on future government support in the form of the MIDP or new support programme

OEMs								
	No dependence		Low dependence		Medium dependence		High dependence	
	1		2		3		4	
	N	%	N	%	N	%	N	%
SA light vehicle manufacturers							8	100,0
SA automotive industry							8	100,0
Stakeholders								
	No dependence		Low dependence		Medium dependence		High dependence	
	1		2		3		4	
	N	%	N	%	N	%	N	%
SA light vehicle manufacturers					2	13,3	13	86,7
SA automotive industry					4	26,7	11	73,3

OEMs

- All eight OEMs indicated a high dependence of 4 on the 4-point scale for future government support in the form of the MIDP or a new support programme for their own operations and for the South African automotive industry. The OEMs stated that the gradual phasing down of benefits under the MIDP up to 2012 will mean that they have to increase exports and/or local content to enjoy the same benefits as enjoyed at present. Reduced benefits create increased pressure to remain internationally competitive in terms of vehicle prices and costs incurred by the distance to the main export markets. The MIDP incentives and the growth and development of the automotive component supplier base are both important for offsetting the logistical disadvantages of South Africa's geographic location. Dependence on continued future support is therefore required to attract new investments and to sustain the export business generated by the OEMs up to 2008.

Stakeholders

- Thirteen stakeholders or 86,7% indicated a high dependence of 4 on the 4-point scale for the South African OEMs' dependence on future government

support in the form of the MIDP or a new support programme. Eleven stakeholders or 73,3% indicated a high dependence of 4 on the 4-point scale for the South African automotive industry's dependence on future government support in the form of the MIDP or a new support programme. The stakeholders concurred with the sentiments of the OEMs on future government support to offset the logistical cost disadvantages resulting from distance to markets. The stakeholders also reiterated the more competitive automotive industry support packages afforded to automotive industries in other developed and developing countries with which the domestic industry has to compete for investments.

- Two stakeholders – one from labour and one from business – indicated a medium dependence of 3 on the 4-point scale on dependence on future government support in the form of the MIDP or a new support programme for the South African OEMs. Four stakeholders – one from labour, two from government and one from business – indicated a medium dependence of 3 on the 4-point scale on future government support for the South African automotive industry. The stakeholders expressed some confidence that, owing to the phasing down of benefits under the MIDP and hence improved international competitiveness and economies-of-scale benefits, the OEMs and the industry would cope with medium dependence on future government support.

The South African-based OEMs have been fully integrated into the global networks of their parent companies. As part of this integration competition is not restricted to the domestic market, but extends globally to subsidiaries competing for new generation model investments and production for exports. Hence, to be considered for the export-oriented, new generation model investments, the OEM subsidiaries are under pressure to continuously improve their international competitiveness. The mechanisms of the MIDP and the three MIDP Reviews between 1995 and 2008 were all aimed at achieving the objectives of the MIDP, including improved international competitiveness.

Question 7 dealt with the respondents' views on the impact of duty-free access, via the SA–EU free trade agreement, into the EU in generating export business for the South African OEMs.

Table 7.5 reveals that the OEMs and the stakeholders rate the impact of duty-free access, via the SA–EU free trade agreement into the EU in generating export business for the South African OEMs on the higher end of the scale.

Table 7.5: Views on the impact of duty-free access through the SA–EU free trade agreement to the EU (OEMs and stakeholders)

OEMs								
	No impact		**Low impact**		**Medium impact**		**High impact**	
	1		**2**		**3**		**4**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Total			1	12,5	1	12,5	6	75,0
Stakeholders								
	No impact		**Low impact**		**Medium impact**		**High impact**	
	1		**2**		**3**		**4**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Total					7	46,7	8	53,3

OEMs

- For six or 75% of the OEMs the SA–EU free trade agreement into the EU has a high impact of 4 on the 4-point scale. The OEMs stated that the EU has remained the domestic automotive industry's main automotive trading partner since 1995. Duty-free access to the EU for vehicles and automotive components, and in turn the preferential duty afforded the EU in South Africa for vehicles, thus improves automotive trade. The reason for the one European-based OEM reflecting a medium impact of 3 on the 4-point scale can be ascribed to a diversion of its vehicle exports away from Europe to other regions over recent years. The other European-based OEM indicated a low impact of 2 on the 4-point scale as it had very limited exports under the MIDP, mostly aimed at selected African markets. The agreement relating to the automotive industry was only finalised in December 2006; thus neither company was benefiting under the agreement at the time of this study.

Stakeholders

- For eight or 53,3% of the stakeholders the SA–EU free trade agreement has a high impact of 4 on the 4-point scale. The stakeholders concurred with the OEMs that the EU has been the industry's main automotive trade destination since the introduction of the MIDP. The stakeholders also stated that the European-based OEMs were the first to seize the benefits under the MIDP with vehicle export programmes. These programmes leveraged significant automotive component export business for the OEMs to the EU as well.
- Seven stakeholders – five from business and two from government – indicated a medium impact of 3 on the 4-point scale in generating business for the South African OEMs. The seven stakeholders, who indicated a medium impact, stated that the trade agreement has not created significant export opportunities for all OEMs although recognising that it has only been implemented since December 2006. The industry's main light vehicle export destinations in 2007 and 2008 remained non-European countries such as the USA, Japan, Australia and Africa.

The SA–EU free trade agreement was only finalised on 15 December 2006. The implications of this agreement were that between 15 December 2006 and 1 January 2008 the EU would reduce all import duties on South African manufactured light vehicles and automotive components to duty-free. In return, South Africa would apply preferential tariffs to vehicles and certain aftermarket automotive components imported from the EU. The EU has extensively displaced its own manufacturing to lower-cost developing countries, including South Africa. In this regard the integration of automotive component suppliers in the export value chain has been the greatest success of the MIDP, as the benefits of the programme have trickled down to domestic automotive component manufacturers as well. The EU comprised 73,8% of the domestic industry's automotive component exports in 2008 while it comprised only 16,5% of light vehicle exports. However, with the major Toyota South Africa export programme focusing on the EU from 2008 onwards, the region is destined to become increasingly important for South African manufactured light vehicle exports.

Question 8 dealt with the respondents' views on the impact of duty- and quota-free access via the African Growth and Opportunity Act (AGOA) with the USA in generating export business for the South African OEMs.

Figure 7.2 reveals the comparison between the AGOA and SA-EU free trade agreement. The AGOA trade arrangement is perceived by the OEMs and the stakeholders as not having such a high impact in generating business for the South African OEMs as the SA–EU free trade agreement.

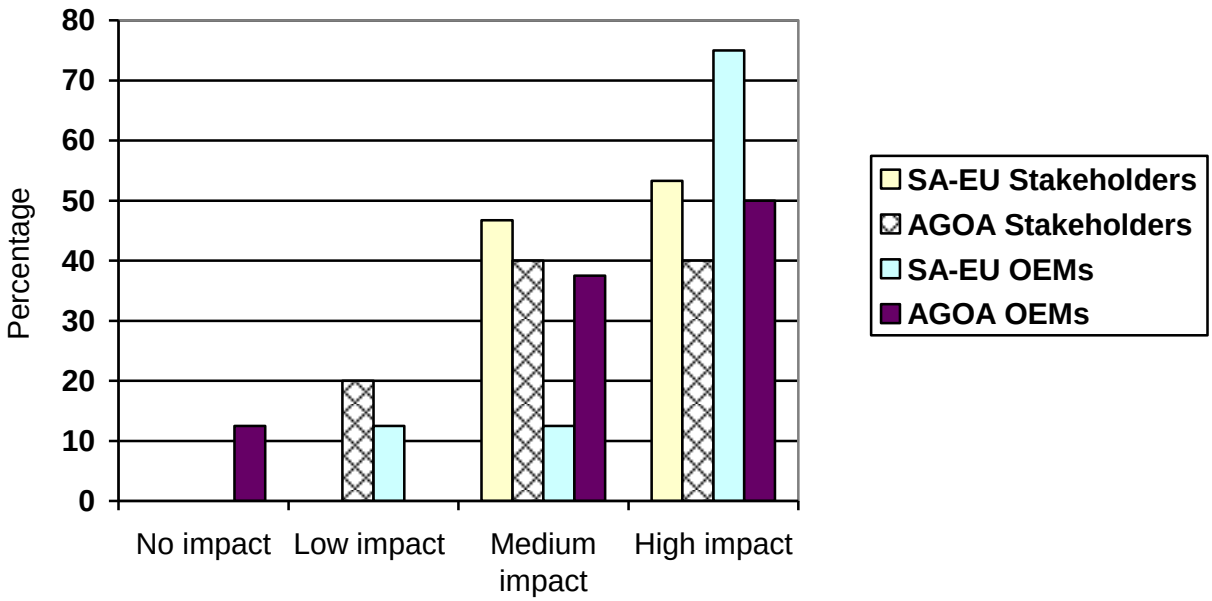

Figure 7.2: Comparison of SA–EU free trade agreement and SA–AGOA arrangement

OEMs

- For four or 50% of the OEMs – two European, one US and one Japanese-based OEM – the AGOA trade arrangement with the USA have a high impact of 4 on the 4-point scale. The OEMs stated that they are using the AGOA trade arrangement for major light vehicle and/or automotive component export programmes to the USA or are investigating export opportunities to the US market under AGOA.
- For two European and one US-based OEM, the AGOA trade arrangement has a low value of 2 on the 4-point scale. One Japanese-based OEM indicated that it has experienced no impact under the AGOA arrangement.

The four OEMs stated that business with the USA is dealt with by the OEM parent companies or other subsidiaries either located in the USA or in closer locations. The AGOA trade arrangement therefore has limited or no value for their South African business operations at this point in time.

Stakeholders

- For six or 40% of the stakeholders, the AGOA trade arrangement with the USA has a high impact of 4 on the 4-point scale. The stakeholders pointed out that the USA was the industry's main light vehicle export destination in 2008. Hence, the stakeholders stated that the AGOA trade arrangement has created significant new export opportunities for South African OEMs.
- For six or 40% of the stakeholders, the AGOA trade arrangement has had a medium impact of 3 while for three stakeholders or 20% it has had a low impact of 2 on the 4-point scale. The nine stakeholders concur that although the trade arrangement has created significant export opportunities, albeit from a low base, opportunities remained relatively limited for the majority of OEMs. The stakeholders also stated that the AGOA arrangement remains a temporary one.

As discussed in chapter 5, South Africa is a beneficiary of the USA's GSP. AGOA is an extension of the GSP by allowing duty- and quota-free access of a range of additional products into the USA, most notably vehicles. The effective commencement date of the duty- and quota-free access provisions in terms of AGOA was 1 January 2001 and it was projected to last until 30 September 2008. This date was subsequently extended to 30 September 2015. In essence, however, AGOA remains a temporary measure. This trade arrangement has provided impetus for the automotive sector's export drive to the extent of a 270% increase in total automotive exports to the USA between 2000 and 2001, when it was implemented. In 2008, the USA became the domestic industry's top light vehicle export destination. This shows the potential importance of the arrangement for South African OEMs.

The benefits stemming from the SA–EU free trade agreement and the AGOA trade arrangement for the South African automotive industry are broader than the mere duty- and quota-free access they offer into these markets. The trade arrangements

stimulate opportunities for a chain of collaborative arrangements with domestic automotive manufacturing companies from other non-EU and non-US countries. These collaborative arrangements enhance the domestic automotive industry's capabilities to increasingly take advantage of opportunities presented by the trade arrangements.

Question 9 dealt with the respondents' views on the importance of the South African OEMs' image for South African manufactured light vehicle exports to penetrate new markets. This image relates to reliability of supply, quality and cost competitiveness.

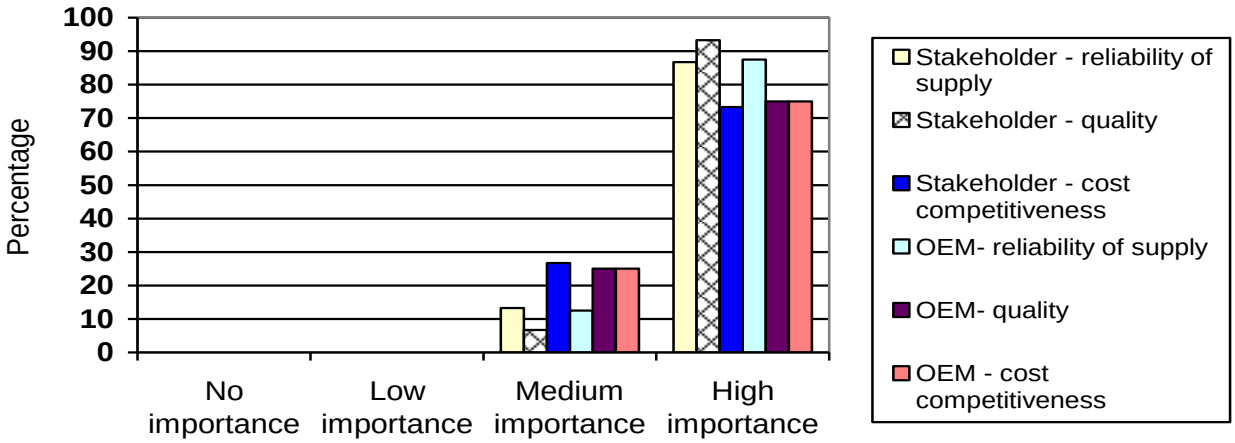

Figure 7.3:The importance of the South African OEMs' image for their light vehicle exports to penetrate new markets

Figure 7.3 reveals that, for the OEMs, their image in respect of reliability of supply is of greater importance than quality and cost competitiveness in penetrating new markets. For the stakeholders quality was more important than reliability of supply which in turn was more important than cost competitiveness in respect of the OEMs' image.

<u>OEMs</u>

- For seven of the OEMs their image in respect of *reliability of supply* for their light vehicle exports in penetrating new markets has a high importance of 4 on the 4-point scale. The high importance allocated to reliability of supply emphasises the focus on logistics in getting vehicles to far-flung export

markets. For one US-based OEM cost competitiveness was of greater importance than reliability of supply or quality. This OEM stated that its light vehicles depended more on price competitiveness to penetrate new markets in Africa and other emerging markets because of the competitive nature of those export markets.

- For six OEMs, image in respect of *quality* for their light vehicle exports penetrating new markets has a high importance of 4 on the 4-point scale. For one European-based OEM reliability of supply was of greater importance for the developed markets identified by the parent company in terms of its image. The company stated that, as a result of the advanced engineering and positioning of its vehicles, quality was not the main consideration. For one US-based OEM cost competitiveness was of greater importance for penetrating new markets because of the competitive nature of those markets.
- For six OEMs their image in respect of *cost competitiveness* for their light vehicle exports to penetrate new markets has a high importance of 4 on the 4-point scale. For one Japanese-based OEM, reliability of supply and quality are more important than cost competitiveness owing to the client requirements in the specific developed export markets. For one European-based OEM, reliability of supply was of greater importance for the markets identified by the OEM parent company than the quality and cost competitiveness.

Thus, what is evident is differentiation. Some of the OEMs' products are advanced in providing a sustainable competitive advantage based on product quality and reliability of supply. Other OEM products have to compete on price owing to the requirements of the specific export markets. Generic or standard featured products thus have to compete with other generic products on the basis of costs.

<u>Stakeholders</u>

- For 13 of the stakeholders the South African OEMs' image in respect of *reliability of supply* for their light vehicle exports to penetrate new markets has a high importance of 4 on the 4-point scale. Two stakeholders from government indicated a medium value of 3 on the 4-point scale in terms of

reliability of supply, as they place a higher premium on quality and cost competitiveness.

- For 14 of the stakeholders the OEMs' image in respect of *quality* for their light vehicle exports to penetrate new markets has a high importance of 4 on the 4-point scale. One stakeholder from government indicated a medium value of 3 in terms of quality, as cost competitiveness was regarded as a more important criterion for penetrating new markets.
- For 11 of the stakeholders the OEMs' image in respect of *cost competitiveness* to penetrate new markets has a high importance of 4 on the 4-point scale. For four stakeholders – three from business and one from government – cost competitiveness has a medium importance of 3. The stakeholders rated quality and reliability of supply as more important criteria in view of the fact that the OEMs' main export destinations for their premium segment light vehicles are developed markets.

Since quality and reliability of supply are the critical dimensions of supplier choice, in addition to price, the exporter may want to reduce pressure on price by emphasising these two areas and the way they fit the buyer's needs (as discussed in chapter 2). The South African manufactured light vehicles are exported by the OEMs on behalf of their parent companies. Acceptance of these vehicles is high considering the number of export destinations as well as the nature of these destinations, which are demanding, mature markets. The respondents, however, reiterated that the MIDP is contributing to cost competitiveness, without which the industry would not be able to compete. As a result of the MIDP, vehicle export opportunities in Africa and other emerging markets are increasing.

Question 10 dealt with the respondents' views on the level of influence of the South African-based OEMs in making decisions when determining new export destinations for their South African manufactured light vehicles.

Table 7.6 reveals that the respondents generally perceive the South African OEMs to have a medium to low influence on decision making when determining new export destinations for their light vehicles.

Table 7.6: Level of influence by the South African OEMs in determining new export destinations for their light vehicles

Decision-making power of SA OEMs	No influence	Low influence	Medium influence	High influence
	1	2	3	4
OEMs		Four European-based OEMs	Two US-based OEMs	
			Two Japanese-based OEM	
Stakeholders		Six business stakeholders	Three government stakeholders	Two business stakeholders
		One government stakeholder	Two business stakeholders	
			One labour stakeholder	

OEMs

- Four of the OEMs indicated a medium influence of 3 on the 4-point scale in terms of the decision-making power when determining new export destinations for their light vehicles. Four OEMs indicated a low influence of 2 on the 4-point scale. The two US- and the two Japanese-based OEMs revealed a higher level of influence on decision making compared to the four European-based OEMs. One US-based OEM stated that it is able to decide on export destinations along with the OEM parent company. The parent company of the other US-based OEM decides on and allows access to new export markets and it is then up to the domestic OEM to decide how to penetrate those markets. Both the US-based OEMs are able to set the export price for their South African light vehicle exports themselves. As far as the two Japanese-based OEMs are concerned, a different picture emerges. One of the OEM's exports are focused on Africa and it has to undertake the marketing functions for that market and is able to set its light vehicle export prices itself. The other Japanese-based OEM's retail less margin pricing structure is more flexible resulting in a medium level of influence in respect of determining new export destinations mainly to Africa.

Stakeholders

- For two of the stakeholders the South African OEMs have a perceived high influence of 4 on the 4-point scale on decision-making power in determining new export destinations for their light vehicles. Six stakeholders – three from

government, two from business and one from labour – indicated a medium influence of 3 on the 4-point scale, while seven stakeholders – six from business and one from government – indicated a low influence of 2. The stakeholders generally reflected the perceptions of their respective support functions and roles in the broader automotive value chain.

The key decisions about South Africa's automotive business are made by the OEM parent companies situated in Europe, the USA and Japan. Single sourcing and global planning strategies are generally controlled centrally. While process design is done in South Africa, product design is done overseas. The domestic OEMs thus have to improve their process capabilities as a precondition for continued supply into the global automotive industry. In addition, the domestic OEMs have to focus on areas such as improved labour productivity, logistics cost control and upgrading of their production facilities, as these are all required to ensure success in penetrating new export markets. All the South African-based OEMs, therefore, have some level of influence, direct or indirect, in the decision-making process that determines new export destinations for their South African manufactured light vehicles.

Question 11 dealt with the respondents' views on the importance of the various constraint factors impacting on access to foreign markets for South African manufactured light vehicles. The factors are each rated out of 100.

Table 7.7 reveals that for both the OEMs and the stakeholders the dominant constraint factor impacting on access for South African manufactured light vehicles into foreign markets is the cost of logistics.

Table 7.7: Importance of different constraint factors impacting on access to foreign markets for South African manufactured light vehicles (mean rating value)

	Stakeholders	OEMs	All groups
	(n=15)	(n=8)	(n=23)
Logistics costs	76,0	91,3	81,3
Tariff barriers	70,1	79,4	73,3
Currency movements	63,7	85,6	71,3
Non-tariff barriers	60,3	66,9	62,6
Foreign government regulations	54,0	55,0	54,3
International standards	47,3	53,8	49,6

OEMs

For the eight OEMs the most important constraint factors impacting on access to foreign markets for South African light manufactured vehicles are:

- Logistics costs
- Currency movements
- Tariff barriers

Irrespective of whether the companies exported to a few concentrated markets or multiple export markets, and irrespective of the size of the light vehicle export contracts, the major constraint on access to foreign markets is logistics costs. This is understandable given South Africa's geographic location, which is a long way from its main export markets. However, company-specific approaches are important here. For one European-based OEM the most important constraint factor in accessing its main export market, the USA, is tariff barriers. Without the duty-free AGOA trade arrangement the company's export performance and profit margins would be far less positive. Since it manufactures a premium segment vehicle in South Africa, tariff barriers also act as a constraint on accessing market opportunities in emerging markets and, in one of its main export markets – an emerging market – the company is subject to a quota system. For another European-based OEM the most important constraint factor is currency movements. This company had only limited exports to a few African markets up to 2004, and currency movements, in particular the volatility of the rand, impacted on the price competitiveness of its products in competing with new and/or cheap used imported brands in these markets.

Two OEMs rated two other factors, namely “time period of delivery” at 80% and “reliable and flexible supply” at 65% as important factors of constraint. Both factors could be partly linked to logistics costs.

Stakeholders

For the 15 stakeholders the most important constraint factors impacting on access to foreign markets for South African light vehicles are:

- Logistics costs
- Tariff barriers
- Currency movements

The stakeholders concurred with the OEMs’ views that the main constraint factor is the distance to the main markets and hence high logistics costs. For the stakeholder representing labour, logistics costs and tariff barriers are equally important constraint factors.

Three stakeholders rated three other factors, namely “OEM parent company’s preference” at 100%, “an increase in labour and services” at 75% and the “ability to meet schedules” at 50% as important constraint factors. Individual considerations thus also have an impact as constraints on access to foreign markets for South African manufactured light vehicles.

As discussed in chapter 2, logistics costs comprise between 10 and 30% of the total landed cost of an international order and South African operations incur significant cost disadvantages in the area of inbound and outbound logistics. The high costs are a function of high transport costs and long distances to foreign markets as well as high levels of imported content. Logistics costs between domestic OEMs and their automotive component suppliers are also much higher than those of plants situated closer to the major markets in the USA, Europe and Asia. The MIDP incentives, although gradually phasing down up to 2012, are imperative for offsetting the logistical disadvantages of South Africa’s geographic location. In addition, the growth and development of the component supplier base is important for reducing dependency on imports.

As discussed in chapter 2, tariffs in emerging markets serve as a means of generating revenue for the respective governments. The elimination of tariffs by way of free or preferential trade agreements enhances South Africa's potential to compete against the same products not accorded similar tariff benefits in the relevant countries. The challenge for the domestic automotive industry as far as the free and preferential trade negotiations are concerned is how to accommodate the MIDP in these agreements without tampering with the integrity of the programme.

Currency movements and the impact on the South African-based OEMs and the industry in general were discussed in chapter 5. The weaker a country's currency is compared with the currencies of its major export markets, the more competitively priced that country's exports can be and vice versa. Although a depreciating rand has a stimulating effect on exports, two important factors that impact on South African automotive exports are declining foreign demand and increasing input costs. The respondents stated that the volatility of the rand in particular impacts significantly as a constraint on their pricing models and, hence, future planning decisions.

7.4 QUESTIONNAIRE: PART C: STRATEGY

Part C of the questionnaire covers questions 12 to 16, and dealt with the respondents' quantitative and qualitative views on strategic aspects impacting on the South African OEMs' light vehicle export strategies.

Question 12 dealt with the respondents' views on the importance of different determinants of foreign-market pricing in setting the export price for South African manufactured light vehicles. The determinants are each rated out of 100.

Table 7.8 reveals that the influence of the OEM parent company as the buyer and the costs involved in manufacturing light vehicles are the dominant determinants in setting the export price.

Table 7.8: Importance of different determinants of foreign-market pricing in setting the export price for South African manufactured light vehicles (mean rating value)

	Stakeholders (n=15)	OEMs (n=8)	All groups (n=23)
OEM parent company as the buyer	88,9	69,4	82,1
Costs	76,3	89,4	80,9
Taxes and tariffs	71,2	85,6	76,2
Competition	68,7	70,6	69,4
Demand	67,8	68,5	68,0
Inflation	63,4	75,0	67,4
Domestic company goals	57,0	79,4	64,8
Product line	60,0	50,6	56,7
Distribution channels	56,1	52,3	54,8
Government	48,3	48,5	48,4
Marketing mix	51,7	36,9	46,5

OEMs

For the eight OEMs the most important determinants of foreign-market pricing in setting the export price for their light vehicles are:

- Costs (manufacturing/marketing/transportation)
- Taxes and tariffs (duties/regional integration/incentives)
- Domestic company goals (market share/profits/competition)

When setting the price for their vehicles, the most important determinant of foreign market pricing for the OEMs is costs. The aim with keeping costs low is to remain within the scope of the target export prices set by the OEM parent companies. Individual company considerations are also important.

For one European-based OEM, the most important determinant of foreign-market pricing is company goals. Its profitability and domestic market share are important considerations if this company is to convince its parent company to consider it for future, export-oriented, new generation model investments.

For one European-based OEM, costs, inflation and the OEM parent company's role as buyer of its products are equally important determinants. The OEM revealed that its light vehicle export target price is based on the vehicle's market position in the export

market relative to other competitors in that segment. Domestic cost determinants are therefore important for remaining within the target price as set by its parent company.

For one US-based OEM, taxes and tariffs, competition and demand are equally important determinants. The company exports its light vehicles to Africa and other markets where foreign market factors impact on the pricing and price competitiveness of its products.

For one Japanese-based OEM involved in a major export programme, competition is the most important determinant. The company's export programme focuses on the EU and Africa. The SA–EU free trade agreement enables the company to compete with locally produced vehicles in the competitive Eastern European countries forming part of the expanded EU. This agreement also allows the company to compete with other imported vehicles not afforded the same duty-free benefit. In African markets fierce competition is experienced from imported new and/or cheap used vehicles. Pricing and price competitiveness are therefore important considerations in achieving success against rivals in these markets.

For the one Japanese-based OEM exporting its light commercial vehicles to multiple African markets, inflation and product line are the most important determinants of foreign market pricing. Inflation relates to the manufacturing cost base in South Africa which impacts on the company's pricing and price competitiveness in competing with imported new and/or cheap used vehicles in those markets. The company revealed that its product line, consisting of built-for-African-conditions vehicles, is an important determinant in its vehicle pricing model.

Stakeholders

For the 15 stakeholders the most important determinants of foreign market pricing in setting the export price for South African manufactured light vehicles are:

- The OEM parent company as the buyer (the vehicle is invoiced to the parent company which determines the target unit price, the export volume and the export destination)
- Costs
- Tariffs and taxes

For the four government stakeholders and the 10 business stakeholders, the OEM parent company as the buyer is the most important determinant of foreign-market pricing. The stakeholders stated that the OEM parent companies decide on and set the target export price. Domestic OEMs then have to comply with the set target price, irrespective of any domestic and foreign market factors impacting on vehicle prices. For the labour stakeholder, costs, competition, taxes and tariffs and product line are all equally important determinants of foreign market pricing. The labour stakeholder stated that a variety of both domestic and foreign market factors impacts on the international price competitiveness of exported vehicles.

Three stakeholders rated three other determinants as important, namely “parent company market performance and production capacity” at 100%, “import replacement to rationalise product ranges” at 85% and the “MIDP” at 75%. Individual considerations in respect of foreign-market pricing are thus also important.

For the OEMs the dominant determinant of foreign-market pricing is the cost of doing business in South Africa. In a South African context various cost factors impact on the automotive industry’s international competitiveness. In 2008 South Africa, as a vehicle producing country, had a cost disadvantage of 20 to 25% in comparison with its competitors (as discussed in chapter 5). High oil prices increasingly affected logistics costs, and the record consumer inflation and near peak producer inflation in the country, raw material price increases and exchange rate volatility impacted negatively on the domestic manufacturing cost base.

For the stakeholders, the influence of the OEM parent company’s buyer role is the dominant determinant: the parent company makes the decisions and sets the light vehicle export price on behalf of the South African-based OEMs.

The determinants of foreign-market pricing are important. Setting the right price for a product can be the key to success or failure, as discussed in chapter 2. Even when the international marketer produces the right product, promotes it correctly and initiates the proper channel of distribution, the effort fails if the product is not properly priced.

Question 13 dealt with the respondents' views on the importance of three criteria in selecting export destinations for South African manufactured light vehicles. The criteria are each rated out of 100.

Table 7.9 reveals that for the OEMs the most important criterion in selecting export destinations for South African manufactured light vehicles is the profitability of that market. For the stakeholders the most important criterion is the accessibility of that market.

Table 7.9: Importance of different criteria in selecting export destinations for South African manufactured light vehicles (mean rating value)

	Stakeholders (n=15)	OEMs (n=8)	All groups (n=23)
Accessibility of that market	80,6	77,5	79,5
Profitability of that market	73,7	78,1	75,3
Market size (potential buyers)	71,1	70,6	71,0

OEMs

Although the profitability of the market is rated as the dominant criterion by the OEMs in selecting export destinations for their light vehicles, company-specific approaches are evident in their responses.

For two OEMs – one US-based and one Japanese-based – the most important criterion is the accessibility of that market. The US-based OEM exports to multiple markets, including some that are unprofitable, in Africa and other emerging markets. The company also applies market differentiated pricing and therefore market access depends on pricing and the price competitiveness of its vehicles in those markets. The Japanese-based OEM revealed that market accessibility for its major export programme depends on the SA–EU free trade agreement, without which the export programme would be discontinued.

For two European-based OEMs, one US-based OEM and one Japanese-based OEM all three criteria are equally important in selecting export destinations. The response reflects the decision-making power by their respective OEM parent companies.

Two OEMs rated two other criteria, namely “location” at 100% and “parent company decision based on global strategy and business case” at 95% as important criteria. These criteria could both be linked to the decision-making power of the OEM parent companies.

The South African-based OEMs are fully integrated into the global networks of their parent companies. The sourcing and outsourcing decisions of the OEM parent companies thus impact strongly on the operations of the OEM subsidiaries in South Africa.

Stakeholders

The 15 stakeholders rated the accessibility of the market as the most important criterion in selecting export destinations for South African manufactured light vehicles. The stakeholders stated that the trade arrangements in the industry’s main export destinations enhance the OEMs’ export performance. However, tariff and non-tariff barriers in emerging markets could counter market accessibility and hence the export opportunities in those markets.

Seven stakeholders rated seven other criteria of importance. Five stakeholders rated “OEM parent company strategy for that market”. Two stakeholders rated the latter at 100%, one rated it at 99%, one rated it at 80% and one rated it at 70%. One stakeholder rated “logistics costs” at 80% and another rated “reliability” at 70% as important criteria. For the stakeholders, the influence of the OEM parent companies and individual company considerations in selecting export destinations are thus important.

Chapter 2 explained that market accessibility relates to tariff barriers, non-tariff barriers, and government and import regulations. Profitability relates to factors that could render the market unprofitable and include the availability of foreign exchange, and the existence of exchange regulations, government subsidies, price controls and substitute products. Market size relates to the current and potential market size for the specific product.

As further discussed in chapter 2, the conventional wisdom of globalisation is that a presence is required in all the major triad markets of the world. The first stage of the selection process is to use macro variables, which include the potential market size and the market's acceptance of the product or similar products. The second stage focuses on micro level considerations, such as profit potential. Grouping countries by region can often help achieve both critical mass and economies of scale, while greater levels of production result in lower costs per unit, which increases profitability. In addition, the level and nature of competition that a firm will encounter in the relevant market are also important.

Question 14 dealt with the respondents' views on the importance of different factors in contributing to an increase in South African manufactured light vehicle exports. The factors are each rated out of 100.

Table 7.10 reveals that there is a general consensus by the respondents that the role of the MIDP in sourcing decisions is the most important factor contributing to an increase in South African manufactured light vehicle exports.

Table 7.10: Importance of different factors in contributing to an increase in South African manufactured light vehicle exports (mean rating value)

	Stakeholders (n=15)	OEMs (n=8)	All groups (n=23)
Role of MIDP in sourcing decisions	86,5	92,5	88,6
Product quality	87,0	81,5	85,1
Productivity improvements	76,3	82,8	78,6
Cost of capital	74,7	83,8	77,8
Exchange rates	74,3	83,8	77,6
Trade agreements	70,7	77,3	73,0
Wage rates	67,7	76,3	70,7
SA's competitive advantages	73,0	62,5	69,3
Scale of production	70,4	54,9	65,0
SA's comparative advantages	65,6	63,8	65,0
Specialisation in product line	60,5	55,0	58,6
Automotive exhibitions	34,1	27,4	31,8

OEMs

For the eight OEMs the most important factors in contributing to an increase in South African manufactured light vehicle exports are:

- The role of the MIDP in sourcing decisions
- The cost of capital and exchange rates, which are rated as equally important

The dominant factor identified by the OEMs in contributing to an increase in their light vehicle exports is the role of the MIDP in sourcing decisions. Rising exports give the OEMs greater flexibility in their sourcing arrangements. World-best prices can be sourced from suppliers around the world in order to lower manufacturing costs. The benefit of the MIDP, however, is based on local content. The higher the local content, the higher the IRCC value used to import CBUs and original equipment components duty-free. The role of the MIDP in sourcing decisions thus reflects the urge to increase local content in the South African manufactured exported vehicles. An increase in local content would mean a deepening of the supply base in South Africa and more business for suppliers in the domestic market. Viability of supply would in turn result in attracting more investment in the supply chain. Cost factors such as currency volatility and logistics costs could therefore be eliminated using domestic supply instead of importing. Individual company considerations are also important.

For one European-based OEM the cost of capital is the most important factor contributing to an increase in its light vehicle exports. In 2007, this OEM invested in a major export-oriented, new generation model. The cost of capital, relating to well-managed fiscal and monetary policy in the country, thus contributes to a return on investment and the company's vehicle export performance.

For the one US-based OEM, the cost of capital, exchange rates, wage rates and productivity improvements, along with the role of the MIDP in sourcing decisions, are equally important factors. The company exports to African and other emerging markets, hence vehicle pricing and price competitiveness are major considerations in competing with other locally produced and/or new and/or cheap used imported vehicles. All these factors thus contribute to an increase in the company's light vehicle exports.

For one Japanese-based OEM, the cost of capital, exchange rates, wage rates, productivity improvements, trade agreements and South Africa's comparative

advantages, along with the role of the MIDP in sourcing decisions, are equally important factors. The company exports to multiple African markets and various factors impact on the company's light vehicle export performance in those markets. Pricing and the price competitiveness of its built-for-African-conditions vehicles, in competing with new and/or cheap used vehicles imported from other regions, are thus important in contributing to an increase in its light vehicle exports.

Stakeholders

For the 15 stakeholders the most important factors in contributing to an increase in South African manufactured light vehicle exports are:

- Product quality
- The role of the MIDP in sourcing decisions
- Productivity improvements

Six stakeholders from business, one from labour and two from government rated product quality as the most important factor that contributes to an increase in light vehicle exports. The stakeholders stated that the industry's main export markets for its premium segment vehicles are demanding, developed markets. Product quality is thus imperative for product acceptance in those markets.

Four stakeholders from business and two from government rated the role of the MIDP in sourcing decisions as the most important factor. The four stakeholders from business form part of the supply chain to the OEMs and thus benefit from the role of the MIDP in sourcing decisions in respect of the vehicles exported and the automotive component export business generated by the OEMs. The government stakeholders perceive the role of the MIDP in sourcing decisions as being to increase local content and deepen the supply base in South Africa.

Five stakeholders rated five other factors as important. Two stakeholders rated the "OEM parent strategy for local production" at 100% and at 90% respectively. One stakeholder rated the "OEM parent company's global sourcing strategy" at 100%, another stakeholder the "parent company market performance and production capacity" at 100% and another, the "low cost of land" at 65%. The influence of the

OEM parent companies is thus perceived to be very important in contributing to an increase in the OEMs' light vehicle exports.

The responses confirm the underlying impact of the MIDP on the export strategies of the South African-based OEMs.

Question 15 dealt with the respondents' qualitative views on the main determinants impacting on the change in export strategies of South African OEMs since 1995.

The detailed views of the respondents are attached as Appendix D.

The *OEMs'* qualitative views on the main determinants impacting on the change in their export strategies since 1995 clearly points to the existence of the MIDP, without which an export strategy would not exist. The OEMs stated that significant structural changes have taken place in the South African automotive industry since the introduction of the MIDP in 1995, particularly in the area of exports. The MIDP rewards exports directly via its import/export complementation scheme. All OEMs thus source supply opportunities globally to maximise their duty savings and complement their domestic model mix with additional imported CBU variety. The PAA promotes investment in domestic manufacturing and the duty-free allowance (DFA) makes provision for the duty-free import of automotive components that cannot be manufactured economically in the country for financial and/or technological reasons.

The *OEMs* stated that the essence of the MIDP is to rationalise platforms. Fewer platforms contribute to an improvement in the quality of local production, control over domestic costs and the reliability of production and supply. Increased vehicle production in turn contributes to economies-of-scale benefits for the OEMs as well as the automotive component suppliers. Economies of scale will not only allow for more efficient cost structures but will also ensure that South African OEMs can supply increasingly higher volume exports to meet demand. Higher volumes affect vehicle affordability positively, increase investment in technology and infrastructure, create better quality and improve employees' skills. The MIDP benefits obtained via exports enable the OEMs to offset logistical cost disadvantages, which improves South Africa's ability to compete internationally.

Another important determinant for the OEMs, impacting on the change in their export strategies, relates to the establishment of free trade arrangements in recent years. Exports were initially restricted to sub-Saharan Africa; however, it was emphasised that these trade agreements have led to profitable business in setting up plants at high levels of capital expenditure. Toyota SA, which has doubled its vehicle production capacity in the country, is a case in point.

The *stakeholders* concurred with the views of the OEMs that the MIDP has been the central driver of exporting since 1995. The constant productivity and supply chain improvements required to offset price increases have contributed to South Africa's reputation as a reliable, high quality producer of automotive products. The quality and reliability hurdles have thus been eliminated to a large degree. The views of the stakeholders also include the following:

- The fact that the OEMs have all come under foreign ownership, which has made it potentially attractive for the parent company to source products from South Africa.
- The ability of and opportunities presented to the OEMs to supply niche product requirements.
- The opening of new markets and opportunities as a result of free and preferential trade agreements, particularly the AGOA trade arrangement since January 2001 and the SA–EU free trade agreement since December 2006.
- The democratic changes of 1994 assisted in shaping export strategies – South Africa has become an acceptable source of product for every country in the world, and this would not have been possible prior to 1994.
- The weak currency and South Africa's tax dispensation also allow for more profits to be realised.

Question 16 dealt with the respondents' qualitative views on the impact of the MIDP on the export strategies of South African OEMs.

The detailed views of the respondents are attached as Appendix E.

The *OEMs'* qualitative views on the impact of the MIDP on the export strategies of South African light motor vehicle manufacturers clearly state that there would not have

been any significant growth in automotive exports from South Africa without the MIDP. The OEMs stated that in several cases the MIDP is the overwhelming deciding factor when competing for international supply programmes. The OEMs all compete on a global basis with subsidiaries of their own parent companies in other countries for investment to accommodate light vehicle export contracts. Cost parity exercises are done by the OEM parent companies to compare the cost of production in South Africa with that of the head office or sister subsidiaries. Without the MIDP or a similar incentive platform, South Africa would not be considered as a supply source by the OEM parent companies, especially if there are countries with more aggressive incentive opportunities closer to Europe and Asia.

In particular, the *OEMs* emphasised the technical parameters of the MIDP in terms of which they can earn IRCCs by exporting, which enables them to import CBUs without paying duties. Importing CBUs thus enables the OEMs to fill gaps in niche product lines, which in turn makes it possible for them to discontinue the local production of low volume models and improve productivity by rationalising production platforms. This rationalisation has improved quality standards and profitability. The subsidisation of exports had also created a mechanism for pricing exports at a competitive level, although logistics costs remain a huge competitive disadvantage.

The *stakeholders* concurred with the views of the OEMs that the MIDP was a critical catalyst in restructuring and refocusing South African OEMs' operations. The substantial reduction in protection levels has forced OEMs to review their operational strategies. In addition, the import/export facilitation element of the MIDP encourages OEMs to rationalise their operations by reducing the number of models produced. They have thus concentrated on one or two model platforms with higher scale benefits. The MIDP was reiterated as being absolutely critical for offsetting geographic location cost disadvantages and matching global incentive levels. It was also believed that the MIDP encouraged OEMs to secure higher volume and production levels, which assisted in reducing complexity for the domestic supplier base. The programme also encourages investment in state-of-the-art technology thereby improving the OEMs' manufacturing efficiencies. The MIDP has therefore played a key role in encouraging global firms to integrate South Africa into their global networks.

The *stakeholders* also stated that the SA-EU free trade agreement has enhanced the impact of the MIDP by allowing OEMs exporting to the EU to use European content in addition to South African content as part of the rules-of-origin requirements in order to qualify for duty-free entry into the EU.

7.5 QUESTIONNAIRE: PART D: DEMOGRAPHIC INFORMATION: OEMS

Part D of the questionnaire covers questions 17 to 29, and dealt with the demographic details of South African-based OEMs.

Question 17 dealt with the ownership of the South African-based OEM.

All eight of the OEMs are 100% foreign owned and subsidiaries of global vehicle groups. Ownership of the one Japanese-based OEM changed from 75 to 100% foreign owned in September 2008.

Ownership and thus the decision-making power of OEM parent companies abroad play a decisive role in the context of South African-based OEMs. Before the country's political and economic liberalisation in 1994, the German-based OEMs remained wholly owned subsidiaries and were the first to reap the benefits of the MIDP. The German-based OEMs' vehicle export strategies were assisted by the fact that the German OEMs did not have a wide network of plants globally, as well as the fact that Germany represented a high cost manufacturing base. One German-based OEM benefited from a temporary shortage of production capacity in the global group. This vehicle export contract gave the company the opportunity to rationalise the number of models being manufactured locally and to prove its capabilities to the parent company. The key to this strategy was the successful localisation of key automotive component capability.

The US-based OEMs were the early pioneers of the South African automotive industry but disinvested as a result of political pressure. Their light vehicle export contracts were initially hampered by surplus production capacity worldwide, the fact that they have manufacturing plants in significant markets, as well as a lack of foreign ownership. The focus for these two companies, hence, revolved around automotive component exports.

The Japanese-based OEMs were domestically owned but operated under licence agreements, which restricted exports. As a result of the pressure of greater competition in the domestic market and majority foreign ownership later on, the OEMs became more firmly integrated into the global production networks of their parent companies. Foreign ownership and integration into the global networks of their OEM parent companies impacted positively on their export performance.

Question 18 dealt with total employment in the company.

Seven of the OEMs employ more than 1 000 people. The one OEM that employs fewer than 1 000 people is European-based and its domestic vehicle production was discontinued in 2008. In 2007 the average employment of the eight OEMs was in the order of 3 844 persons per plant, ranging from 80 to 9 770 people per plant.

With the main thrust of the MIDP being to improve the international competitiveness of the industry, it was realised that it would be difficult to create employment in the automotive sector. Hence, the objectives of the MIDP were rather to focus on maintaining employment at the levels prevailing at its introduction. High levels of employment relative to the number of vehicles manufactured meant that existing levels would only be maintained with an increase in production. The OEMs in South Africa generally had a high labour input to production rate, which meant a high degree of flexibility. Most OEMs had spare capacity and could increase production without increasing employment levels.

Productivity gains have also been realised by the OEMs, mainly driven by higher CBU exports and economies-of-scale benefits. The drive towards higher productivity and new manufacturing techniques has resulted in full-time jobs being converted into subcontracting, outsourcing and the use of temporary workers, which inhibited growth in employment during the early years of the MIDP. In an intensely competitive environment employment increases are also subject to labour costs. However, the positive output growth by the automotive industry assisted in keeping employment losses in the sector in the early years of the MIDP to a minimum. The main reason for the significant growth in employment in the vehicle manufacturing sector in 2006 was the increase in production. In 2006 domestic vehicle production as well as vehicle

exports recorded all-time record performances. Consequently, employment in the vehicle manufacturing sector experienced peak levels under the MIDP. OEM employment declined in 2008 owing to a decline in production associated with a depressed domestic market.

Question 19 dealt with information on the OEMs main exports of in-house manufactured components.

The following automotive components are manufactured in-house by the eight OEMs:

- Catalytic converters
- Maniverters (manifold incorporating the catalytic converter)
- Engines
- Engine components
- Stitched leather parts
- Alloy wheels

One US-based OEM, one Japanese-based OEM and one European-based OEM do not manufacture automotive components in-house.

The product mix presented by the OEMs comprises all the CBU exports from South Africa in unit and value terms, in addition to a few selected, high-value components manufactured in-house.

Between 1995 and 2007 automotive components remained the main driving force behind the industry's exports under the MIDP. As a result of the record CBU export performance of 284 211 vehicles in 2008, the value of vehicle exports surpassed the value of automotive components for the first time.

The South African-based OEMs provide the global linkages for generating export business for domestic automotive component suppliers. In turn, the OEMs obtain the IRCC benefits under the MIDP in order to rebate the import duties on the CBUs and original equipment components they import.

Question 20 dealt with the OEMs' export turnover as a percentage of the company's total turnover.

Five OEMs recorded an export turnover as a percentage of the company's total turnover of between 25 and 50%, while three OEMs recorded an export turnover of less than 25%. None of these companies had an export turnover, as a percentage of the company's total turnover, in excess of 50%

Three of the four European-based OEMs, one US-based and one Japanese-based OEM recorded an export turnover of between 25 and 50% of the company's total turnover. The OEMs with an export turnover of between 25 and 50% represent the companies involved in major export programmes. One European-based OEM had no light vehicle exports between 2004 and 2008, but is involved in major automotive component exports. Two European-based OEMs and one Japanese-based OEM export the majority of their vehicle production. Their turnover includes revenue generated from domestic vehicle financing, vehicle servicing, aftermarket parts and accessories sales and used vehicle sales. Some of the OEMs are also involved in medium and heavy commercial vehicle and bus manufacturing.

One European-based OEM, one Japanese-based OEM and one US-based OEM recorded an export turnover as a percentage of the company's turnover of less than 25%. The European-based OEM is involved in a major light vehicle export programme but generated the main portion of its revenue in the domestic market. The company is also a market leader in the medium and heavy commercial vehicle and bus manufacturing segment. The one US-based OEM is involved in a low volume passenger car export programme while also exporting light commercial vehicles to multiple African markets. The Japanese-based OEM's exports focus on its light vehicle exports to multiple African markets.

Question 21 dealt with the South African-based OEM's vehicle production as a percentage of the company's global group vehicle production.

Table 7.11 reveals that for two OEMs their South African vehicle production, as a percentage of the company's global group vehicle production, exceeds 2%. For three

OEMs the percentage was between 1 and 2% and for three OEMs the percentage was below 1%.

Table 7.11: OEMs' vehicle production as percentage of the parent company's global group vehicle production

	% vehicle production			Total
	<1%	1%- 2%	>2%	
	Two US-based OEMs	Two Japanese-based OEMs	Two European-based OEMs	
	One European-based OEM	One European-based OEM		
Total	**3**	**3**	**2**	**8**

The South African domestic OEMs' vehicle production as a percentage of the parent company's global group vehicle production is relatively small to negligible. This should be seen in the context of the South African automotive industry's global vehicle production market share which, in 2008, comprised 0,80%. The OEMs with a percentage exceeding 1% are those involved in major vehicle export programmes.

Question 22 dealt with the OEM's number of export destinations for its South African manufactured light vehicles.

Table 7.12 reveals that for three OEMs the number of export destinations for their South African manufactured light vehicles exceeded ten. Two OEMs had between five and ten destinations and three OEMs had fewer than five destinations. Five OEMs concentrated on fewer than ten export destinations; one OEM exported to 11 destinations and two exported to 42 and 60 destinations respectively.

Table 7.12: OEMs' number of country export destinations for its South African manufactured light vehicles

	Number of export destinations			Total
	<5	5 - 10	>10	
	Three European-based OEMs	One European-based OEM	Two Japanese-based OEMs	
		One US-based OEM	One US-based OEM	
Total	**3**	**2**	**3**	**8**

The OEMs involved in major light vehicle export programmes tend to focus on a few concentrated markets in order to obtain economies-of-scale benefits in the area of logistics costs. Although the one Japanese-based OEM involved in two major export programmes exports to various markets, the main focus is on the EU and a few selected markets in Africa. The company aims to capitalise on market opportunities, especially in Africa, however, in order to generate additional IRCCs. Only one of the US-based OEMs revealed in Question 4 that it focuses on multiple export markets. This is warranted by the profile of the company's vehicle production scope in South Africa and its ability to select export destinations along with its parent company.

Question 23 dealt with who determines the export destinations for the South African-based OEM's South African manufactured light vehicle exports.

All eight of the OEMs stated that their parent companies determine the export destinations for their light vehicle exports. One US-based OEM, however, stated that it has the scope to determine export destinations for its manufactured light vehicle exports in consultation with its OEM parent company.

The OEM parent companies not only undertake the international marketing functions, as discussed in chapter 2, but also decide on which subsidiaries should serve which markets and regions. Before the introduction of the MIDP and the country's trade liberalisation in 1994, the South African based OEMs were generally restricted to sub-Saharan Africa by the licence agreements for their vehicle exports. Since the introduction of the MIDP the South African-based OEMs have been fully integrated into the global networks of parent companies. These parent companies, however, identify export destinations and allow access into relevant markets; without this facilitation, the South African-based OEMs would be unable to penetrate those markets.

Question 24 dealt with who sets the export price for the South African-based OEM's South African manufactured light vehicle exports.

One Japanese-based OEM and four European-based OEMs stated that parent companies set the export price for their light vehicles. Two US-based OEMs and one

Japanese-based OEM stated that they set the export price for their light vehicle exports themselves.

The level of decision making allowed to European-based OEMs is low as parent companies set the export price and are generally the buyers. One US-based OEM stated that its parent company allows market access and it thus has the scope to access African and other emerging markets based on pricing and price competitiveness. One Japanese-based OEM and one US-based OEM stated that they apply a cost-based plus margin method providing a level of flexibility with regard to export pricing and the requirements of the different export markets.

Question 25 dealt with the currency in which the export price for the South African-based OEM's South African manufactured light vehicle exports is set.

The export price for the light vehicle exports of all eight OEMs is set in a foreign currency. Currency movements, in particular the volatility of the rand, are an important consideration for them. Currency volatility impacts on pricing and price competitiveness in terms of accessing markets, profit margins and the cost of the imported content of vehicles manufactured in South Africa.

Question 26 dealt with the price systems on which the export price for South African manufactured light vehicle exports are based.

For seven of the OEMs the export price for their South African manufactured light vehicle exports is market differentiated. As discussed in chapter 2, a market-differentiated price takes account of the different vehicle specification requirements of relevant export destinations, currency fluctuations and competition in the relevant markets. A market-differentiated pricing method is based on demand orientation but also has to acknowledge costs in the long term. This approach involves neither fixing a single price, nor allowing local subsidiaries total freedom in setting prices either, but attempts to take the best of both approaches. The success of differential pricing depends to a large degree on differential elasticity of demand and effective separation of markets.

One European-based OEM's export price for its South African manufactured light vehicle exports is based on a standard world price, which means it is the same for all export markets. The OEM, however, stated that it manufactures the full range of derivates to comply with all the specific market requirements in the few concentrated markets the company exports to. The standard world price is a cost-oriented pricing method and is based on setting a price for the product as it leaves the factory, irrespective of its final destination. Whilst each customer pays the same price for the product at the factory gate, they are expected to pay transport and import duties themselves, either directly or indirectly, and this leads to considerable differences in the price for the final consumer.

Chapter 2 referred to the fact that, in maximising a company's revenues, it would appear logical to set prices on a market-by-market basis, seeking in each market the best combination of price and expected volume to yield the maximum profit. A uniform pricing strategy is complicated by the various taxes, trade margins and customs duties involved. A company can, however, employ modified uniform pricing by carefully monitoring price levels in each country and avoiding large price differentials.

Question 27 dealt with the intermediaries used by South African-based OEMs to sell to foreign markets.

Table 7.13 reveals that sister companies are the preferred way by which South African-based OEMs sell to foreign markets.

Table 7.13: The intermediaries used by OEMs to sell to foreign markets

Setting of export price		**Total**
Independent intermediaries	One Japanese-based OEM One European-based OEM	2
Distribution agents	One European-based OEM One US-based OEM	2
Sister companies	One Japanese-based OEM Two US-based OEMs Three European-based OEMs	6
Total	**10**	**10**

(*OEMs' and total numbers differ owing to multiple choices of the OEMs)

Five OEMs only use sister companies to sell to foreign markets and one OEM only uses distribution agents. One OEM uses a combination of sister companies and distribution agents and another uses a combination of independent intermediaries and distribution agents.

The OEMs involved in major export programmes that export to a few concentrated markets use sister companies to sell to those foreign markets. For the one Japanese-based OEM and the one US-based OEM their fully or majority owned trading houses, which distribute the vehicles from a central point to relevant markets in a region, are also regarded as sister companies. The OEMs that have capitalised on market opportunities in African and other emerging markets, where no vehicle manufacturing and hence no sister companies operate, use independent intermediaries and distribution agents.

The intermediaries used by the domestically-based OEMs to sell to foreign markets can take many forms. As discussed in chapter 2, an export management company (EMC) is a firm that handles all aspects of export operations under a contractual agreement. It takes responsibility for marketing research, patent protection, channel credit, and shipping and logistics, as well as for the actual marketing of products in a foreign market or markets. Export agents are similar to EMCs, except that they tend to provide more limited services and focus on one country or one part of the world. An independent distribution agent earns a margin on the selling price of the products, which represents a loss to the exporter. Alternatively, the exporter can set up a wholly owned marketing subsidiary; in this case consisting of staff, a warehousing operation, and the rental of both an office and a warehouse location. Cost considerations, however, are important in the specific choices made by the OEMs.

Question 28 dealt with whether the OEM company exports to unprofitable markets or not.

Four European-based OEMs and one Japanese-based OEM do not export to unprofitable markets. Chapter 2 highlighted that the rationale behind any firm's decision to enter international markets is usually to increase profitability. This is based

upon recognition of the fact that the size of the firm's actual market share is a primary determinant of profitability.

Three OEMs – two US-based and one Japanese-based – do export to unprofitable markets. Unprofitable markets could include those where local or international conditions change the market from profitable to non-profitable. Currency movements and their volatility also impact on profit margins during exports. In addition tariffs and taxes reduce South African OEMs' ability to compete with the vehicle prices of other locally manufactured vehicles and imported brands. The OEMs stated that it is important to maintain a brand image in a market, irrespective of the profitability of that market at that point in time. Unprofitable markets could also include non-profitable markets in a region allocated to the South African-based OEM for exports by its parent company. The OEM parent companies' strategies and decision-making power for specific markets remain important determining factors in the context of South African-based OEMs.

Question 29 dealt with whether the OEM company customises its South African manufactured light vehicles for different export markets or not.

Two US-based OEMs, two of the four European-based OEMs and one of the Japanese-based OEMs do customise their South African manufactured light vehicles for different export markets. The OEMs, although involved in major export contracts, also capitalise on market opportunities in Africa and other emerging markets in order to obtain additional IRCC benefits. As a result they customise their vehicles according to the local conditions and taste of the relevant markets to enhance their competitiveness in accessing those markets. One European-based OEM stated that different vehicle executions, such as left-hand drive models for different markets, are not regarded as customising a vehicle.

One of the two Japanese-based OEMs and two of the four European-based OEMs do not customise their vehicles for different export markets. The Japanese-based OEM exports its built-for-African-conditions light commercial vehicles to multiple African markets. The company stated that the vehicle already suits the different conditions and is therefore not customised further. One of the European-based OEMs had limited

exports and the costs of customising vehicles did not warrant the benefits for the company. The other European-based OEM's passenger car export programme is only focused on a single market. The OEM manufactures the full range of derivates and is thus able to comply with all the requirements of the specific export market.

Customisation considerations depend on a cost-benefit analysis between product standardisation and product adaptation for the different export markets. The OEM parent companies' strategies and decision-making power for specific markets remain important determining factors in the context of the South African-based OEMs.

7.6 RESULTS OF DATA ANALYSIS

Various cross-tabulations will now be discussed. A cross-tabulation is a statistical technique that describes two or more variables simultaneously. This results in tables that reflect the joint distribution of two or more variables with a limited number of categories of distinct values. Such a data analysis provides viable insights and guides the rest of the data analysis. Most notably, the results will aim to address the primary and secondary objectives of this study, as outlined in chapter 1.

7.6.1 MARKETING AND STRATEGIC INFORMATION CROSS-TABULATION ANALYSIS

Various statistical analyses in tabulated form were conducted on the marketing and strategic information for Questions 9 to 14. SSPS and Excel computer programs were used. Cross-tabulations were used to determine the effect of certain dependent variables on certain independent variables. Where relevant the frequency tables were further analysed in order to determine more detailed relationships based on a breakdown of the respondents.

Question 9 (Reliability of supply) with Question 14:
The result in Table 7.14 reveals the Kruskal-Wallis one-way analysis of variance test with Question 9 *(the level of importance of the South African light vehicle manufacturers' image for South African light vehicle exports to penetrate new markets in respect of reliability of supply)* as grouping variable and Question 14 *(the factors contributing to an increase in South African manufactured light vehicle exports).*

Table 7.14: Kruskal-Wallis Test – Reliability of supply versus factors contributing to an increase in light vehicle exports – test statistics[a,b]

	Cost of capital	Wage rates	Productivity improvements	Exchange rates	Role of MIDP in sourcing decisions	Trade agreements	SA's comparative advantages	SA's competitive advantages	Automotive exhibitions	Specialisation in the product line	Scale of production	Product quality
Chi-Square	.019	.053	.214	1.262	.702	.487	1.657	1.111	.034	.135	.857	.339
df	1	1	1	1	1	1	1	1	1	1	1	1
Asymp. Sig.	.890	.818	.644	.261	.402	.485	.198	.292	.854	.713	.354	.560

a. Kruskal-Wallis Test

b. Grouping Variable: Reliability of supply

Table 7.14 reveals that for the eight OEMs and the 15 stakeholders there is no statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p > 0.05$) in respect of the equality of medians for the importance groups for each of the 12 factors. The South African-based OEMs export their light vehicles to demanding world markets on behalf of their parent companies and, under the MIDP, have established a reputation as reliable suppliers. The result hence reveals that the median values for each of the factors do not differ significantly between the importance rating groups for reliability of supply. This, therefore, implies that the viewpoint of the importance of the reliability of supply with regard to South African manufactured light vehicles does not impact on the ratings of any of the 12 factors contributing to an increase in light vehicle exports.

Question 9 (Quality) with Question 14:

The result in Table 7.15 reveals the Kruskal-Wallis one-way analysis of variance test with Question 9 *(the level of importance of the South African light vehicle manufacturers' image for South African light vehicle exports to penetrate new markets in respect of quality)* as grouping variable and Question 14 *(the factors contributing to an increase in South African manufactured light vehicle exports)*.

Table 7.15: Kruskal-Wallis Test – Quality versus factors contributing to an increase in light vehicle exports – test statistics[a,b]

	Cost of capital	Wage rates	Productivity improvements	Exchange rates	Role of MIDP in sourcing decisions	Trade agreements	SA's comparative advantages	SA's competitive advantages	Automotive exhibitions	Specialisation in the product line	Scale of production	Product quality
Chi-Square	.855	.476	.173	.177	.009	.106	1.217	.355	1.434	.019	.309	1.358
df	1	1	1	1	1	1	1	1	1	1	1	1
Asymp. Sig.	.355	.490	.677	.674	.926	.745	.270	.551	.231	.890	.578	.244

a. Kruskal-Wallis Test

b. Grouping Variable: Quality

Table 7.15 reveals that for the eight OEMs and the 15 stakeholders there is no statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p > 0.05$) in respect of the equality of medians for the importance groups for each of the 12 factors. Quality relates to adherence to global standards in the OEM parent company source plant. Since product design and development are performed by the OEM parent companies and only process development takes place in South Africa, product quality is aligned with the international standards and requirements of the parent company. The result hence reveals that the median values for each of the factors do not differ significantly between the importance rating groups for quality. This, therefore, implies that the viewpoint of the importance of quality with regard to South African manufactured light vehicles does not impact on the ratings of any of the 12 factors contributing to an increase in light vehicle exports.

Question 9 (Cost competitiveness) with Question 14:

The result in Table 7.16 reveals the Kruskal-Wallis one-way analysis of variance test with Question 9 *(the level of importance of the South African light vehicle manufacturers' image for South African light vehicle exports to penetrate new markets in respect of cost competitiveness)* as grouping variable and Question 14 *(the factors contributing to an increase in South African manufactured light vehicle exports)*.

Table 7.16: Kruskal-Wallis Test – Cost competitiveness versus factors contributing to an increase in light vehicle exports – test statistics[a,b]

	Cost of capital	Wage rates	Productivity improvements	Exchange rates	Role of MIDP in sourcing decisions	Trade agreements	SA's comparative advantages	SA's competitive advantages	Automotive exhibitions	Specialisation in the product line	Scale of production	Product quality
Chi-Square	.609	.001	1.369	4.335	.930	4.892	5.093	.031	2.527	1.888	.455	2.218
df	1	1	1	1	1	1	1	1	1	1	1	1
Asymp. Sig.	.435	.972	.242	.037	.335	.027	.024	.860	.112	.169	.500	.136

a. Kruskal-Wallis Test

b. Grouping Variable: Cost competitiveness

Table 7.16 reveals that for the eight OEMs and 15 stakeholders there is a statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p < 0.05$) in respect of the equality of medians for the importance groups for three of the 12 factors. The three factors are:

- Exchange rates
- Trade agreements
- South Africa's comparative advantages

The result therefore implies that the median rating for exchange rates, trade agreements and South Africa's comparative advantages differ significantly between the importance rating groups for cost competitiveness. This, therefore, implies that the viewpoint of the importance of cost competitiveness with regard to South African manufactured light vehicles does impact on the ratings of exchange rates, trade agreements and South Africa's comparative advantages in contributing to an increase in light vehicle exports.

The significant differences relate to the specific approaches adopted by the OEMs involved in major light vehicle export programmes compared to those that are not. The OEMs that are involved in major light vehicle export programmes focus on a few

concentrated markets as identified by their OEM parent companies and make use of the free trade arrangements with regard to the EU and the USA. The OEMs that are not involved in major light vehicle export programmes capitalise on export opportunities in multiple African and emerging markets outside the free trade arrangements. Vehicle pricing and the price competitiveness of their vehicles are major considerations in competing with other locally produced and/or new and/or cheap used imported vehicles in those markets. Cost competitiveness is therefore imperative for these OEMs when accessing export opportunities in those markets.

Question 10 with Question 14:

The result below in Table 7.17 reveals the Kruskal-Wallis one-way analysis of variance test with Question 10 *(the level of decision-making power of the South African light vehicle manufacturers in determining new export destinations)* as grouping variable and Question 14 *(the factors contributing to an increase in South African manufactured light vehicle exports)*.

Table 7.17: Kruskal-Wallis Test – Decision-making power versus factors contributing to an increase in light vehicle exports – test statistics[a,b]

	Cost of capital	Wage rates	Productivity improvements	Exchange rates	Role of MIDP in sourcing decisions	Trade agreements	SA's comparative advantages	SA's competitive advantages	Automotive exhibitions	Specialisation in the product line	Scale of production	Product quality
Chi-Square	1.809	.841	1.038	.076	.448	1.830	1.474	2.031	3.324	.464	1.419	2.705
df	2	2	2	2	2	2	2	2	2	2	2	2
Asymp. Sig.	.405	.657	.595	.963	.799	.400	.478	.362	.190	.793	.492	.259

a. Kruskal-Wallis Test

b. Grouping Variable: Decision-making power of SA OEMs

Table 7.17 reveals that for the Kruskal-Wallis one-way analysis of variance there is no statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p > 0.05$) in respect of the equality of medians for the importance groups for each of the 12 factors.

In terms of the South African-based OEMs, the decision-making power to determine new export destinations resides with their OEM parent companies. The result hence reveals that the median values for each of the factors do not differ significantly between the importance rating groups for the decision-making power of the South African-based OEMs. This, therefore, implies that the viewpoint of the importance of decision-making power of South African-based OEMs does not impact on the ratings of any of the 12 factors contributing to an increase in light vehicle exports.

Question 11 with Question 14:

The result below indicates the Spearman's rank order correlation coefficient between Question 11 *(the factors of constraint impacting on market access into foreign markets for South African manufactured light vehicles)* and Question 14 *(the factors contributing to an increase in South African manufactured light vehicle exports).*

In respect of Spearman's rank order correlation coefficient there are highly significant correlations ($p < 0.01$), significant correlations ($p < 0.05$), as well as no significant correlations between the factors in question. Table 7.18 indicates the highly significant and the significant correlations between the factors of question 11 and the factors of question 14.

Table 7.18: Cross-tabulation – The factors of constraint versus the factors contributing to an increase in light vehicle exports – Spearman's rank order correlations

Correlation	**Factors of Question 11**	**Factors of Question 14**
Highly significant ($p < 0.01$)	Currency movements	Cost of capital Productivity improvements Exchange rates
Significant ($p < 0.05$)	Tariff barriers Currency movements Logistics costs	Trade agreements
	Logistics costs	Cost of capital Productivity improvements
	Currency movements	Role of the MIDP in sourcing decisions

The results were aligned with the results of questions 11 and 14 in respect of the importance of specific factors for the respondents. For both the eight OEMs and the 15 stakeholders, the dominant factor of constraint impacting on market access into

foreign markets for South African manufactured light vehicles is *logistics costs*. For the eight OEMs, the dominant factor contributing to an increase in light vehicle exports is *the role of the MIDP in sourcing decisions* and, for the 15 stakeholders, it is *product quality*. Although some constraint factors on and some contributing factors to light vehicle exports are equally or more important for some stakeholders, they do not appear in the same order of importance as for the OEMs. As far as the OEMs are concerned, the influence of their parent companies and the unique approaches by the respective OEMs for best achieving light vehicle export successes are evident in the order of importance in which they view some of the factors.

Table 7.18 reveals that a highly significant correlation between *currency movements* as a constraint factor and *exchange rates, productivity improvements* and the *cost of capital* as factors contributing to an increase in light vehicle exports exists. Currency movements relates to the volatility of the rand as the export prices of South African manufactured light vehicles are all set in a foreign currency. The weaker a country's currency is compared with the currencies of its major export markets, the more competitively priced that country's exports can be and vice versa. A favourable exchange rate and productivity improvements in the process design undertaken in South Africa contribute to improved international competitiveness. In a weak currency environment, investors also have to make higher returns in order to compensate for potential currency losses and therefore the cost of capital is also closely related to currency movements. For two OEMs, the most important constraint factor is currency movements. For both of these OEMs the most important factors contributing to an increase in their light vehicle exports are exchange rates, productivity improvements and the cost of capital. Both OEMs are involved in light vehicle exports to multiple African markets and the factors mentioned impact on their pricing and price competitiveness when attempting to penetrate these markets. Fierce competition is experienced from new and/or cheap used vehicle imports from other countries, notably Asia.

Table 7.18 reveals that there is a significant correlation between *tariff barriers, currency movements* and *logistics costs* as constraint factors and *trade agreements* as a factor contributing to an increase in light vehicle exports. Tariffs are direct taxes and charges imposed on imports and are regarded as one of the most common forms

of government intervention in the automotive industry. Tariffs are used by poorer nations as the easiest means of collecting revenue. Logistics costs relate to distance to markets while currency movements impact on the price competitiveness of exported products. Trade agreements relate to the elimination of tariffs by way of free or preferential trade agreements which enhance South Africa's potential to compete against the same products not accorded similar tariff benefits in the relevant countries. One OEM exports light commercial vehicles to multiple African markets and experiences competition from imported new and/or grey and/or cheap used vehicles from other countries; hence, factors that impact on vehicle pricing and price competitiveness are important considerations for this company. Another important consideration for the company in increasing its light vehicle exports is trade agreements. The company perceives the integration of the 14-country SADC free trade area as being increasingly important in terms of its light vehicle exports to those markets.

There is also a significant correlation between *logistics costs* as a factor of constraint and the *cost of capital* and *productivity improvements* in contributing to an increase in light vehicle exports. Logistics costs relate to distance to markets for the light vehicle exports. The cost of capital and productivity improvements relate to the manufacturing cost base and hence the cost of doing business in South Africa. For two OEMs exporting to multiple African markets the factors in question impact on the vehicle pricing and price competitiveness of their light vehicle exports and are thus important considerations. One of the OEM's major passenger car export programmes also focuses on Australia. There the company's vehicles have to compete with duty-free vehicles imported from Thailand and the USA owing to their respective free trade agreements with Australia. Cost considerations are therefore important for both companies in order for them to compete successfully in their respective export markets.

Another significant correlation exists between *currency movements* as a constraint factor and *the role of the MIDP in sourcing decisions* as a factor contributing to an increase in light vehicle exports. Currency movements, and the volatility of the rand in particular, impact on vehicle pricing, price competitiveness and profit margins in terms of the major light vehicle export programmes. The MIDP's role in sourcing decisions

relates to the pressure on OEMs to increase exports and/or to increase local content in their light vehicles. This would help them to obtain higher IRCC benefits, which, in turn, would enable them to rebate import duties on their imported vehicles and original equipment component requirements and hence assist them to achieve duty neutrality.

Question 12 with Question 14:

The result below indicates the Spearman's rank order correlation coefficient between Question 12 *(the determinants of foreign-market pricing in setting the export price for South African manufactured light vehicles)* and Question 14 *(the factors contributing to an increase in South African manufactured light vehicle exports).*

In respect of Spearman's rank order correlation coefficient there are highly significant correlations ($p < 0.01$), significant correlations ($p < 0.05$), as well as no significant correlations between the determinants and the factors in question. Table 7.19 indicates the highly significant and the significant correlations between the determinants of question 12 and the factors of question 14.

Table 7.19: Cross-tabulation – Determinants of foreign-market pricing versus the factors contributing to an increase in light vehicle exports – Spearman's rank order correlations

Correlation	**Determinants of Question 12**	**Factors of Question 14**
Highly significant ($p < 0.01$)	Competition	Productivity improvements
	Costs	Exchange rates
	Inflation	Trade agreements
Significant ($p < 0.05$)	Costs Inflation	Cost of capital
	Competition Taxes and tariffs	Wage rates
	Demand Taxes and tariffs	Productivity improvements
	Taxes and tariffs Inflation	Exchange rates
	Competition Taxes and tariffs	Role of the MIDP in sourcing decisions
	Inflation	South Africa's comparative advantages

The results were aligned with the results of questions 12 and 14 in respect of the importance of specific determinants and factors for the respondents. For the eight

OEMs, the dominant determinant of foreign-market pricing in setting the export price for their South African manufactured light vehicles is *costs relating to manufacturing, marketing and transportation*. For the 15 stakeholders, the dominant factor of foreign-market pricing is *the OEM parent company as the buyer*. For the eight OEMs, the dominant factor contributing to an increase in light vehicle exports is *the role of the MIDP in sourcing decisions* and, for the 15 stakeholders, it is *product quality*. Although some determinants of foreign-market pricing and some contributing factors to light vehicle exports are equally or more important for some stakeholders, they do not appear in the same order of importance as for the OEMs. As far as the OEMs are concerned, the influence of their parent companies and the OEMs' unique approaches in achieving export success are evident in the order of importance in which they view some of the determinants and factors.

Table 7.19 reveals that there is a highly significant correlation between *competition* as a determinant in setting the vehicle export price and *productivity improvements* in contributing to an increase in its light vehicle exports. As discussed in chapter 2, competition impacts on company goals, the size of market share, the strategies for different market segments and pricing policies, among others. Productivity improvements relate to improved international competitiveness in the process design undertaken by the domestic OEMs. The passenger car export programme for one OEM focuses on Australia where competition is experienced from Thailand and the USA, which, as explained earlier, both benefit from duty-free access for their light vehicle exports. This OEM's exports also focus on African and other developed and emerging markets where it competes with locally manufactured and/or new and/or cheap used vehicles imports from other countries. This company is able to select export destinations together with its OEM parent company and is also able to set light vehicle export prices itself. Productivity improvements thus assist the company in pricing its vehicles and in remaining price competitive when accessing export opportunities in the face of fierce competition.

There is also a highly significant correlation between *costs* as a determinant of foreign-market pricing and *exchange rates* in contributing to increased light vehicle exports. For South African-based OEMs, costs are associated with manufacturing, marketing and transportation and hence the cost of doing business in South Africa. A

ratio that measures the value of one currency in terms of another currency is called an exchange rate. When a currency rises in value against another currency, it appreciates, and when it falls, it depreciates. The strength of a domestic currency against the currency of the country's trading partners can have a positive effect on exporters, but a negative effect for importers who will now pay more. Exchange rates are among the most closely watched and politically sensitive economic variables. For one OEM, the company focuses on costs in order to meet the light vehicle export target price as set by its parent company. The impact of exchange rates on its price competitiveness and profit margins is regarded as the predominant factor contributing to an increase in its vehicle exports. For this OEM, correct vehicle pricing for positioning its vehicles in the market segments of the relevant export markets is a major consideration when attempting to compete successfully in the export market.

Another highly significant correlation exists between *inflation* as a determinant of foreign-market pricing and *trade agreements* in contributing to light vehicle exports. "Inflation" is the term used to describe a general increase in the prices of goods over a period of time. As discussed in chapter 5, South Africa's inflation rate was at its lowest in decades up to 2006; however, since then it increased again up to 2008 and this has had an impact on the cost of doing business in the country. Trade agreements relate to the elimination of tariffs so as to allow duty-free access to a country, which enhances a country's competitiveness in terms of the same products not accorded similar tariff benefits in the relevant countries. One OEM is involved in a major passenger car export programme to the USA and inflation impacts on the manufacturing cost base in meeting the export target price. The AGOA duty-free trade arrangement with the USA is a major consideration in the company's export programme to that country.

Table 7.19 also reveals several significant correlations. These correlations are to be found between *costs* and *inflation* as determinants of vehicle foreign-market pricing and the *cost of capital* as a contributor to an increase in light vehicle exports. Costs and inflation have been discussed in the previous paragraphs. The cost of capital and hence the return on investment is influenced by the rate of inflation and the cost of doing business in the country.

Several other significant correlations exist. One correlation is between *competition* and *taxes and tariffs* as determinants of foreign-market pricing and *wage rates* in contributing to increased light vehicle exports. Taxes and tariffs are imposed by the governments of the importing countries as a means of revenue and hence impact on vehicle pricing and price competitiveness in those markets. Wage rates as a factor contributing to increased light vehicle exports relate to the stability of the three-year wage agreements negotiated by the South African-based OEMs with the union, as well as the constructive cooperation that exists between role players in the industry. There is a correlation between *demand* and *taxes and tariffs* as determinants of foreign-market pricing and *productivity improvements* in contributing to increased light vehicle exports. Another correlation is between *taxes and tariffs* and *inflation* as determinants of foreign-market pricing and *exchange rates* in contributing to increased light vehicle exports. A further correlation concerns *competition* and *taxes and tariffs* as determinants of foreign-market pricing and *the role of the MIDP in sourcing decisions* in contributing to increased light vehicle exports. There is also a correlation between *inflation* as a determinant of foreign-market pricing and *South Africa's comparative advantages* in contributing to increased light vehicle exports. These correlations all reflect one OEM's approach to vehicle pricing and price competitiveness in order to compete with locally manufactured and/or new and/or cheap used vehicle imports in various African markets. This OEM also exports to Australia and has to compete with vehicles from the USA and Thailand, which enjoy a free trade agreement with Australia, while South African light vehicles attract a 5% import duty.

7.6.2 Demographic information and cross-tabulation analysis

The Statistical Package for Social Sciences (SSPS) and Excel computer programs were employed to interpret data. Cross-tabulations were used to determine the effect of certain dependent variables on certain independent variables. Where relevant the frequency tables were further analysed in order to determine more detailed relationships based on a breakdown of the respondents.

7.6.2.1 Cross-tabulations: factors of constraint impacting on market access versus the demographic information of the OEMs

Question 11 deals with the factors of constraint impacting on market access for South African manufactured light vehicles. Logistics costs were identified as the most important factor of constraint for the OEMs (mean = 91,3%). Cross-tabulations between Question 11 and the OEM demographic details, captured in Questions 20 to 29, highlight the unique approaches used by the OEMs.

The South African operations incur significant cost disadvantages in the area of inbound and outbound logistics. These high costs relate to high transport costs, long distances to foreign markets and the high levels of imported content in the light vehicles exported. Logistical costs to and from domestic OEMs and component suppliers are also much higher compared with plants in the USA, Europe and Asia. The benefits under the MIDP, although phasing down up to 2012 (as discussed in chapter 4), are imperative to enable OEMs to offset the logistics costs in order to compete internationally. Failing to access export markets would result in the OEMs not being considered for new generation, export-oriented model investments. The South African-based OEMs compete for investments with sister subsidiaries, which are closer to the main markets and therefore have less of a logistics burden.

The approaches of the four European-based OEMs, the two Japanese-based OEMs and the two US-based OEMs in respect of Question 11, based on their respective demographic details, will now be discussed.

<u>European-based OEMs</u>

Table 7.20 reveals that the dominant constraint factors for the European-based OEMs are logistics costs, currency movements and tariff barriers.

Although the dominant factor of constraint in Question 11 is logistics costs, individual OEM considerations are important and can be explained as follows.

Table 7.20: Cross-tabulations: Four European-based OEMs – factors of constraint versus the demographic information of the OEMs

	Four European-based OEMs			
Most important constraint factor/s	OEM 1 - Tariff barriers	OEM 2 - Logistics costs - Currency movements	OEM 3 - Logistics costs	OEM 4 - Currency movements
Survey Question				
Q20 – Export turnover as % of total turnover	25–50%	< 25%	25–50%	25–50%
Q21 – Vehicle production as % of global group	> 2%	> 2%	1–2%	< 1%
Q22 – Number of export destinations	5 to 10	< 5	< 5	< 5
Q23 – Who determines export destinations?	Parent OEM	Parent OEM	Parent OEM	Parent OEM
Q24 – Who sets the export price?	Parent OEM	Parent OEM	Parent OEM	Parent OEM
Q25 – In which currency is the export price?	Foreign currency	Foreign currency	Foreign currency	Foreign currency
Q26 – Export price system used	Standard world price	Market-differentiated price	Market-differentiated price	Market-differentiated price
Q27 – Which intermediaries are used to sell into foreign markets?	Sister companies	Sister companies	Sister companies	Independent intermediaries Distribution agents
Q28 – Export to unprofitable markets	No	No	No	No
Q29 – Customise vehicles for different markets	Yes	No	Yes	No

(> greater than, < smaller than)

For European-based OEM 1 the most important factor of constraint is tariff barriers. This company was the first domestic OEM to seize the opportunity to access duty free access into the USA via the AGOA arrangement for its major passenger car export programme. Although the USA is the company's main export market, it also capitalises on opportunities in selected emerging markets. However, higher import duties on premium segment vehicles are generally applied in the duty structures of certain emerging markets. These duties impact negatively on potential market opportunities in those markets. The company's vehicle exports to Taiwan are subject to a quota arrangement, which is renewable on an annual basis. In view of the company's export programmes to developed and emerging markets, the vehicles are customised to cater for specific local conditions and tastes to enhance the vehicles' competitiveness. In view of the fact that a standard world price model is applied and

that the OEM parent company sets the export target price, the most important consideration for the company is tariff barriers. Tariff barriers could impact negatively on the company's profit margins and export performance, as the importers/customers in the different markets have to absorb these tariff barriers.

For European-based OEM 2 the most important constraint, in addition to logistics costs, is currency movements. The OEM makes extensive use of the AGOA duty and quota free trade arrangement with the USA. AGOA provided the catalyst for the company's new, major passenger car, export-oriented investment. The company manufactures the full range of derivatives and therefore does not customise its vehicles for its single export market, the USA. Currency movements, in particular the volatility of the rand, impact on the company's ability to meet the vehicle export price set by its OEM parent company. Currency movements also impact on the imported content of South African manufactured vehicles and thus the company's vehicle pricing and profit margins.

For European-based OEM 3 the most important constraint factor is logistics costs. The company is involved in two major passenger car export programmes to a few concentrated markets. The dominant constraint factor for the company is the high transport costs relating to distance to markets.

For European-based OEM 4 the most important constraint factor is currency movements. Exports by the OEM never took off under the MIDP. The company's announced investment in 2003 in a light commercial vehicle and its intention to become the global hub for exports to right-hand markets in the southern hemisphere and the UK did not materialise. Only limited vehicle exports took place up to 2004 to a few selected African markets. The company is currently involved in automotive component exports to obtain IRCCs to rebate the import duties on its vehicle imports. In 2008 its domestic market share was 0,8%. The high export turnover percentage thus relates to its relatively small total company turnover. The company did not customise its limited vehicle exports owing to cost considerations. Currency movements and in particular the volatility of the rand, impact on the company's pricing and price competitiveness in those markets it has targeted for its light vehicle exports.

Japanese-based OEMs

Table 7.21 reveals that although the dominant constraint factor for the Japanese-based OEMs is logistics costs, individual company considerations are also important for one of them.

Table 7.21: Cross-tabulations: Two Japanese-based OEMs – factors of constraint versus the demographic information of the OEMs

Two Japanese-based OEMs		
Most important constraint factor/s	OEM 1 - Logistics costs	OEM 2 - Logistics costs - Tariff barriers - Currency movements
Survey question		
Q20 – Export turnover as % of total turnover	25–50%	< 25%
Q21 – Vehicle production as % of global group	1–2%	1–2%
Q22 – Number of export destinations	> 10	> 10
Q23 – Who determines export destinations?	Parent OEM	Parent OEM
Q24 – Who sets the export price?	Parent OEM	SA OEM
Q25 – In which currency is the export price?	Foreign currency	Foreign currency
Q26 – Export price system used	Market-differentiated price	Market-differentiated price
Q27 – Which intermediaries are used to sell into foreign markets?	Sister companies	Independent intermediaries
Q28 – Export to unprofitable markets	Yes	No
Q29 – Customise vehicles for different markets	Yes	No

(> greater than, < smaller than)

For Japanese-based OEM 1 the most important constraint factor is logistics costs. The company makes extensive use of the SA–EU free trade agreement for its passenger car and light commercial vehicle export programmes. Its major light vehicle export programme also focuses on a few selected African markets, although the company capitalises on export opportunities into various other African markets. The most important constraint for the company is thus logistics costs relating to distance to markets, as well as the high inbound logistics costs in terms of African markets in particular.

The individual considerations in respect of Japanese-based OEM 2's light vehicle exports, other than logistics costs, can be explained as follows.

For Japanese-based OEM 2 the most important constraints, in addition to logistics costs, are currency movements and tariff barriers. The company's light commercial vehicle exports focus on multiple African markets. Tariffs barriers and currency movements, in addition to logistics costs, impact on its vehicle pricing and price competitiveness in those markets. Competition in African markets is experienced from other South African brands, and new, grey and/or cheap used vehicles imported from other regions, most notably Asian countries. Price competitiveness is thus a major consideration in accessing export opportunities in those markets. As discussed in chapter 2, tariffs in emerging markets serve as a means of generating revenue by the respective governments. Grey market imports appear when individual buyers or independent entrepreneurs step in and buy products in low-price countries to re-export to high-price countries, profiting from the price differential. Currency movements, and in particular the volatility of the rand, impact on vehicle pricing and price competitiveness, while currency movements also impact on the cost of the imported content in the domestically manufactured vehicles and thus on profit margins. The OEM applies market-differentiated pricing but does not customise its built-for-African-conditions light commercial vehicles for the different export markets as the vehicles are already suited to the varying conditions.

US-based OEMs

Table 7.22 reveals that although the dominant factor of constraint for the US-based OEMs is logistics costs, individual company considerations are also important.

For US-based OEM 1 the most important constraint factor is logistics costs. The company is involved in a major passenger car export programme to Australia as well as light commercial vehicle exports to a number of African and other emerging markets. Logistics costs relate to the distance to markets as well as high inbound logistics costs associated with exports to Africa.

Table 7.22: Cross-tabulations: Two US-based OEMs – factors of constraint versus the demographic information of the OEMs

Two US-based OEMs		
Most important constraint factor/s	OEM 1 - Logistics costs	OEM 2 - Logistics costs - Tariff barriers - Currency movements - Non-tariff barriers
Survey question		
Q20 – Export turnover as % of total turnover	25–50%	< 25%
Q21 – Vehicle production as % of global group	< 1%	< 1%
Q22 – Number of export destinations	5 to 10	> 10
Q23 – Who determines export destinations?	Parent OEM SA OEM	Parent OEM
Q24 – Who sets the export price?	SA OEM	SA OEM
Q25 – In which currency is the export price?	Foreign currency	Foreign currency
Q26 – Export price system used	Market-differentiated price	Market-differentiated price
Q27 – Which intermediaries are used to sell into foreign markets?	Sister companies	Sister companies Distribution agents
Q28 – Export to unprofitable markets	Yes	Yes
Q29 – Customise vehicles for different markets	Yes	Yes

(> greater than, < smaller than)

In terms of US-based OEM 2's light vehicle exports, individual considerations other than logistics costs can be explained as follows.

In addition to logistics costs, this OEM's most important constraints are tariff barriers, non-tariff barriers and currency movements. The company capitalises on export opportunities in a number of African markets and its relatively low volume passenger car export programme focuses on Australia and one or two other markets. Australia has a free trade agreement with the USA and Thailand, which affords duty-free vehicle access to Thailand and the USA, while South African manufactured vehicles attract a 5% import duty. Currency movements, and in particular the volatility of the rand, impact on the company's vehicle pricing and price competitiveness when accessing export opportunities. Currency movements also impact on the costs of the imported content of its domestically manufactured vehicles and thus its profit margins. The local content of its passenger car export programme is relatively low owing to the low production volume. Tariff barriers add to costs and thus price competitiveness in

competing with locally manufactured, new and/or cheap used vehicles imported into those markets. Non-tariff barriers act as additional barriers when attempting to gain access to emerging markets protecting their own local vehicle manufacturing facilities. This OEM is able to set the light vehicle export prices itself and applies a market-differentiated pricing policy to cater for the requirements of the different export markets. The company does export to unprofitable markets in order to get a foothold there. It also customises its light vehicles to cater for local conditions and tastes in order to enhance its competitiveness further.

In terms of individual considerations, the Kruskal-Wallis one-way analysis of variance by ranks test was used for questions 21 and 22 to test the equality of medians between the groups as defined in the demographical questions obtained for each of the six factors of constraint. The tests revealed that there is no statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p > 0.05$) between the groups across the six constraint factors. The medians for the six constraint factors thus do not differ significantly between the different groups.

The Mann-Whitney U test was used for questions 20 and 23 to 29 to test the equality of medians between the groups as defined in the demographical questions obtained for each of the six factors of constraint. The results revealed that only in the case where export turnover was used as grouping variable a statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p < 0.05$) exists for two of the factors of constraint. The result for the significant difference for the Mann-Whitney U test will be discussed in Table 7.23.

The Mann-Whitney U test on Question 11 *(the factors of constraint impacting on market access into foreign markets for South African manufactured light vehicles)* and Question 20 *(the company's export turnover as a percentage of the company's total turnover)* reveals the following for the selected groups.

The two groups tested consist of

- three OEMs with an export turnover expressed as a percentage of the company's total turnover of less than 25%, and

- five OEMs with an export turnover expressed as a percentage of the company's total turnover of between 25 and 50%.

Table 7.23: Ranks – factors of constraint versus the OEMs' export turnover – test statistics[b]

	Tariff barriers	Non-tariff barriers	International standards	Foreign government regulations	Currency movements	Logistics costs
Mann-Whitney U	2.500	.000	6.000	6.000	.500	3.500
Wilcoxon W	17.500	15.000	12.000	21.000	15.500	18.500
Z	-1.509	-2.249	-.447	-.447	-2.100	-1.230
Asymp. Sig. (2-tailed)	.131	.024	.655	.655	.036	.219
Exact Sig. [2*(1-tailed Sig.)]	.143[a]	.036[a]	.786[a]	.786[a]	.036[a]	.250[a]

a. Not corrected for ties.

b. Grouping Variable: q20

Table 7.23 reveals that the significant differences relate to:

- non-tariff barriers
- currency movements

The differences relate to the OEMs involved in major light vehicle export programmes and those involved in lower volume light vehicle exports. The OEMs involved in major light vehicle export programmes are focusing on a few concentrated, developed markets as identified by their parent companies. In the case of the EU and the USA, duty free and quota free trade arrangements are in place. The OEMs with an export turnover of less than 25% are pursuing export opportunities in various markets outside the main markets where trade arrangements do not apply. Non-tariff barriers and currency movements, in particular the volatility of the rand, act as major constraints when attempting to access those markets. Non-tariff barriers could take many forms in the emerging markets, as discussed in chapters 3 and 5. Non-tariff barriers such as customs control or internal tax systems could prove to be major constraint factors when accessing markets and benefiting from export opportunities. The OEMs stated that pricing and price competitiveness are major considerations when competing in African and other emerging markets. Fierce competition is experienced from locally

manufactured, new and/or cheap used vehicle imports, most notably Asian brands. Currency movements and non-tariff barriers could thus impact on competing for new business.

7.6.2.2 Cross-tabulations: determinants of foreign-market pricing versus the demographic information of the OEMs

Question 12 deals with the determinants of foreign-market pricing in setting the export price for South African manufactured light vehicles. Costs relating to manufacturing, marketing and transportation were identified as the most important determinant for the OEMs (mean = 89,4%). Cross-tabulations between Question 12 and the OEMs' demographic details, captured in Questions 20 to 29, highlight the unique approaches used by the OEMs.

The export price is influenced by both internal and external factors, as well as their interaction (as discussed in chapter 2). The interaction of these elements causes pricing opportunities and constraints in different markets. As in all marketing decisions, the intended target market will establish the basic premise for pricing. Pricing policies could focus on profit maximisation and increased market share, or even survival in a specific market merely to maintain a footprint. Competitive policies could focus on following a particular competitor's prices, or pricing so as to discourage competitors from entering the market.

In an intensely competitive global environment improved international competitiveness is important when selling light vehicles into foreign markets. The cost base is also imperative when trying to convince OEM parent companies to consider their subsidiary in South Africa for investments in export-oriented, new generation models. Fierce competition is experienced amongst sister subsidiaries for new investments.

Although the dominant determinant of pricing is costs, individual approaches by the respective OEMs are also evident in their responses on how best to achieve light vehicle export successes. The approaches of the four European-based OEMs, the two Japanese-based OEMs and the two US-based OEMs in respect of Question 12, based on their respective demographic details, will now be discussed.

European-based OEMs

Table 7.24 reveals that for the European-based OEMs the dominant determinant of foreign-market pricing is costs relating to manufacturing, transportation and marketing. Other considerations, however, are also important for two OEMs in terms of their respective light vehicle export programme approaches.

Table 7.24: Cross-tabulations: Four European-based OEMs – determinants of foreign-market pricing versus the demographic information of the OEMs

Four European-based OEMs				
Most important determinant/s of foreign-market pricing	OEM 1 - Domestic company goals	OEM 2 - Costs - Inflation - OEM parent company as the buyer	OEM 3 - Costs	OEM 4 - Costs
Survey question				
Q20 – Export turnover as % of total turnover	25–50%	< 25%	25–50%	25–50%
Q21 – Vehicle production as % of global group	> 2%	> 2%	1–2%	< 1%
Q22 – Number of export destinations	5 to 10	< 5	< 5	< 5
Q23 – Who determines export destinations?	Parent OEM	Parent OEM	Parent OEM	Parent OEM
Q24 – Who sets the export price?	Parent OEM	Parent OEM	Parent OEM	Parent OEM
Q25 – In which currency is the export price?	Foreign currency	Foreign currency	Foreign currency	Foreign currency
Q26 – Export price system used	Standard world price	Market-differentiated price	Market-differentiated price	Market-differentiated price
Q27 – Which intermediaries are used to sell into foreign markets?	Sister companies	Sister companies	Sister companies	Independent intermediaries Distribution agents
Q28 – Export to unprofitable markets	No	No	No	No
Q29 – Customise vehicles for different markets	Yes	No	Yes	No

(> greater than, < smaller than)

The individual considerations in respect of European-based OEMs 1 and 2, other than costs, can be explained as follows.

For European-based OEM 1, which is involved in a major passenger car export programme, the most important determinant of foreign-market pricing is company goals. Company goals relate to market share, profitability and competition, and as a

determinant, are an important consideration for the company when trying to convince its parent company to be considered for future, export-oriented, new generation model investments. The company's head office manufactures the same model as the plant in South Africa, and has excess capacity available. The performance of the domestic subsidiary, in competing with its head office and sister subsidiaries around the world for new generation model investments, is therefore an important consideration. The company applies a standard world pricing policy, which also applies in the domestic market. It also customises its vehicles to cater for the different requirements of the developed and developing markets in order to further enhance its competitiveness in the premium market segments.

For European-based OEM 2, which is involved in a major passenger car export programme, the most important determinants of foreign-market pricing, in addition to costs, are inflation and the OEM parent company's role as buyer. The company is making extensive use of the AGOA duty free trade arrangement to the USA and this market is the company's only export market for its passenger car export programme. The OEM parent company sets the vehicle export price in a foreign currency; thus domestic cost factors, including inflation, which affects the manufacturing cost base, are an important consideration when attempting to achieve the target price and hence the company's profit margins.

For European-based OEM 3 and European-based OEM 4 the most important determinant of foreign-market pricing is costs. European-based OEM 3 is involved in two major passenger car export programmes to a few concentrated markets. The company applies a country price setting policy in positioning its vehicles in the relevant market segments in the export markets. Costs thus impact on the company's ability to price and position its vehicles against those of rivals competitively. European-based OEM 4 has limited light vehicle exports to a few African markets and costs impact on the company's price competitiveness in terms of new vehicle and/or cheap used vehicle imports from other countries.

Japanese-based OEMs

Table 7.25 reveals that for the Japanese-based OEMs considerations other than costs are more important for their light vehicle export programmes.

Table 7.25: Cross-tabulations: Two Japanese-based OEMs – determinants of foreign-market pricing versus the demographic information of the OEMs

Two Japanese based OEMs		
Most important determinant/s of foreign-market pricing	OEM 1 - Competition	OEM 2 - Inflation - Product line
Survey question		
Q20 – Export turnover as % of total turnover	25–50%	< 25%
Q21 – Vehicle production as % of global group	1–2%	1–2%
Q22 – Number of export destinations	> 10	> 10
Q23 – Who determines export destinations?	Parent OEM	Parent OEM
Q24 – Who sets the export price?	Parent OEM	SA OEM
Q25 – In which currency is the export price?	Foreign currency	Foreign currency
Q26 – Export price system used	Market-differentiated price	Market-differentiated price
Q27 – Which intermediaries are used to sell into foreign markets?	Sister companies	Independent intermediaries
Q28 – Export to unprofitable markets	Yes	No
Q29 – Customise vehicles for different markets	Yes	No

(> greater than, < smaller than)

The individual considerations in respect of the two Japanese-based OEM's light vehicle exports can be explained as follows.

For Japanese-based OEM 1 the most important determinant in its foreign-market pricing is competition. The company's major export programmes focus on the EU and the Africa region. The SA–EU free trade agreement was instrumental in winning the major export-oriented investment for the company, which doubled its domestic vehicle production. The SA–EU free trade agreement allows for a duty saving of 10% on passenger cars and 22% on light commercial vehicles into the EU. Competition is experienced from the vehicles manufactured in the 12 newly-added, cost competitive, Eastern European countries forming part of the expanded EU. Competition is also experienced in the form of imported models from other regions not afforded the same duty-free benefit. The Africa region is also a main export destination for the company and competition from new and/or cheap used vehicle imports from other regions is a major consideration for pricing and price competitiveness. The company's OEM parent company sets the light vehicle export price and some exporting takes place to

unprofitable markets in order to maintain a footprint for the company. The company customises its vehicles so to comply with local conditions and tastes in the relevant exports markets in order to enhance its competitiveness further. Although the company's major export programmes focus on a few concentrated markets, the company capitalises on export opportunities in various African markets. Additional vehicle exports result in additional IRCCs used to rebate the import duties on its imported vehicles and original equipment component requirements. The company applies market-differentiated prices to cater for the requirements of the various export markets and a "retail less" margin pricing structure policy is followed, which implies that the company takes the risk for any price deviations.

For Japanese-based OEM 2, inflation and product line are the most important determinants for setting light vehicle export prices. The company has been a successful exporter into a number of African markets under the MIDP with its light commercial vehicle product line built for African conditions. The company does not customise its vehicles for the different export markets but the full range of derivatives is manufactured and the vehicle is already suited to the varying conditions. The company applies market-differentiated prices to cater for the varying requirements in the different markets. Inflation, which impacts on its manufacturing cost base and hence its price competitiveness when accessing export market opportunities, is therefore an important consideration. In Africa competition is experienced from other South African brands and new, grey and/or cheap used imported vehicles from other countries. The company applies a cost-based method pricing, which implies that the retailer takes the risk for any price deviations. Thus, added costs impact on access to market opportunities as they affect price competitiveness.

US-based OEMs

Table 7.26 reveals that for the one US-based OEM involved in a major export programme the most important determinant of foreign-market pricing is costs. For the other US-based OEM involved in lower volume light vehicle exports considerations other than costs are more important when accessing light vehicle export opportunities.

Table 7.26: Cross-tabulations: Two US-based OEMs – determinants of foreign-market pricing versus the demographic information of the OEMs

Two US based OEMs		
Most important determinant/s of foreign-market pricing	OEM 1 - Costs	OEM 2 - Demand - Competition - Taxes and tariffs
Survey question		
Q20 – Export turnover as % of total turnover	25–50%	< 25%
Q21 – Vehicle production as % of global group	< 1%	< 1%
Q22 – Number of export destinations	5 to 10	> 10
Q23 – Who determines export destinations?	Parent OEM SA OEM	Parent OEM
Q24 – Who sets the export price?	SA OEM	SA OEM
Q25 – In which currency is the export price?	Foreign currency	Foreign currency
Q26 – Export price system used	Market-differentiated price	Market-differentiated price
Q27 – Which intermediaries are used to sell into foreign markets?	Sister companies	Sister companies Distribution agents
Q28 – Export to unprofitable markets	Yes	Yes
Q29 – Customise vehicles for different markets	Yes	Yes

(> greater than, < smaller than)

As mentioned, for US-based OEM 1 the most important determinant of foreign-market pricing is costs. The company's major passenger car export programme focuses on Australia and its light commercial vehicle exports focuses on a number of African and other emerging markets. As already discussed, Australia has a free trade agreement with Thailand and the USA and thus South Africa is at a disadvantage in terms of the 5% import duty levied on South African imports. In Africa and other emerging markets costs have an effect on vehicle pricing and price competitiveness owing to locally manufactured vehicles and cheap imports of new or used vehicles.

For US-based OEM 2 the most important determinants in foreign-market pricing are taxes and tariffs, demand and competition. The company is involved in a relatively low volume passenger car export programme to Australia and other markets as well as light commercial vehicle exports to a number of African markets. The OEM is able to set the light vehicle export price itself and a major consideration for the company when penetrating African and other emerging markets is taxes and tariffs, which add to costs thus impacting on its vehicle pricing and price competitiveness. Demand relates

to income and the ability to afford a vehicle in the relevant African and emerging markets. Competition is experienced from locally manufactured and/or new and/or cheap used imported vehicles from other regions, most notably Asian countries, as well as competition from vehicles from other countries afforded free or preferential status. Its experience in Australia is similar to that of US-based OEM 1. The company customises its vehicles for the local conditions and tastes in the relevant exports markets to enhance its competitiveness further. Market-differentiated prices are applied to cater for the different market requirements of the relevant export markets and the company applies a cost-based pricing structure, which implies that the retailer takes the risk for any price deviations. Price competitiveness is a major consideration for accessing export opportunities, thus added costs impact negatively on market access.

The Kruskal-Wallis one-way analysis of variance by ranks test was used for questions 21 and 22 to test the equality of medians between the groups as defined in the demographical questions obtained for each of the 11 determinants of foreign-market pricing. There is no statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p > 0.05$) between the groups for the determinants of foreign-market pricing. The medians for the determinants of foreign-market pricing thus do not differ significantly between the groups.

The Mann-Whitney U test was used for questions 20 and 23 to 29 to test the equality of medians between the groups as defined in the demographical questions obtained for each of the 11 determinants of foreign-market pricing. The results reveal that only in the case where exports to unprofitable markets was used as grouping variable a statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p < 0.05$) exists for one of the determinants of foreign-market pricing. The result of this significant difference will be discussed in Table 7.27.

The result for the Mann-Whitney U test on Question 12 *(the determinants of foreign-market pricing in setting the export price for South African manufactured light vehicles)* and Question 28 *(whether the South African OEM exports to unprofitable markets)* reveals the following.

The selected groups consist of

- five OEMs that do not export to unprofitable markets, and
- three OEMs that do export to unprofitable markets.

Table 7.27: Ranks – determinants of foreign-market pricing versus exports to profitable and unprofitable markets – test statistics[b]

	Domestic company goals	Costs	Demand	Competition	Government	Taxes and tariffs	Inflation	Product line	Distribution channels	Marketing mix	OEM parent company as the buyer
Mann-Whitney U	3.500	5.500	5.500	3.500	6.000	1.000	5.000	6.000	5.500	7.000	3.000
Wilcoxon W	9.500	11.500	20.500	18.500	12.000	16.000	11.000	21.000	20.500	22.000	9.000
Z	-1.271	-.615	-.600	-1.200	-.450	-1.998	-.750	-.447	-.604	-.149	-1.375
Asymp. Sig. (2-tailed)	.204	.539	.549	.230	.653	.046	.453	.655	.546	.881	.169
Exact Sig. [2*(1-tailed Sig.)]**	.250[a]	.571[a]	.571[a]	.250[a]	.786[a]	.071[a]	.571[a]	.786[a]	.571[a]	1.000[a]	.250[a]

**In this particular case, the asymptotic significance level is smaller than 0.05, thus significant at a 5% level of significance. The exact test however, has a significance level of 0.071, thus it is only significant at a 10% level of significance.

a. Not corrected for ties.

b. Grouping Variable: q28

Table 7.27 reveals that the significant difference relates to:

- taxes and tariffs.

The significant difference for the selected groups in respect of taxes and tariffs as a determinant of foreign-market pricing relates to the different approaches taken by the selected groups. The five OEMs that do not export to unprofitable markets – four European-based and one Japanese-based – reflect the influence of the OEM parent company by not exporting to unprofitable markets. These OEMs are involved in major light vehicle export programmes and focus on a few concentrated markets as

identified by their OEM parent companies. These OEMs make use of the duty-free trade arrangements in respect of the EU and the USA. The three OEMs that do export to unprofitable markets – two US-based and one Japanese-based – capitalise on export opportunities in a number of African and other emerging markets, where they experience fierce competition in the form of locally manufactured and/or new and/or cheap used vehicle imports from other regions. Taxes and tariffs are generated by governments of the importing countries as a means of revenue and hence impact on vehicle pricing and price competitiveness in those markets. These taxes and tariffs could also be a reason why the relevant market is unprofitable for the OEMs at a certain point in time.

7.6.2.3 Cross-tabulations: criteria for selecting export destinations versus the demographic information of the OEMs

Question 13 deals with the criteria for selecting export destinations for South African manufactured light vehicles. Profitability of that market was the most important criterion for the OEMs (mean = 78,1%). Cross-tabulations between Question 13 and the OEMs' demographic details, captured in Questions 20 to 29, highlight the unique approaches used by the OEMs.

In respect of all the demographic details the most important criterion for selecting export destinations is the profitability of that market. Chapters 2 and 3 stated that OEM parent companies consider various ways to win market share and increase profitability. In selecting export markets, the first stage of the selection process is to consider macro variables, which include the potential market size and market accessibility for the vehicles. The second stage focuses on micro level considerations such as profit potential, as opening up new export markets in regions or country groupings often helps to achieve higher volumes and thus economies-of-scale benefits. The level and nature of competition that a firm will encounter in the relevant market is also important.

The South African-based OEMs are fully integrated into the global networks of their parent companies; therefore the influence of these parent companies on sourcing and outsourcing decisions has a strong impact on their South African subsidiaries' operations.

The individual approaches of the OEMs are evident in their export strategies. The US-based and Japanese-based OEMs revealed a higher level of influence on decision-making power than the European-based OEMs. This higher level of influence relates to the setting of export prices for their South African manufactured light vehicle and accessing additional export opportunities, particularly in Africa.

The approaches of the four European-based OEMs, the two Japanese-based OEMs and the two US-based OEMs in respect of Question 13 will now be discussed.

European-based OEMs

Table 7.28 reveals that the dominant criterion for selecting export destinations for the European-based OEMs is the profitability of that market. However, the influence of their parent companies is also evident in considering all three criteria.

The individual considerations in respect of the most important criterion or criteria, in addition to or other than the profitability of that market, can be explained as follows.

For European-based OEM 1 market size is the most important criterion when selecting markets for its domestically manufactured vehicles. The market share of premium segment vehicles is generally small and market size would thus determine the level of demand for the company's vehicles. The company's major passenger export programme focuses on developed markets, including the USA, where the duty free opportunity under AGOA is seized. Exports are also focused on a few selected emerging markets. The premium segments in emerging markets are generally small owing to the profile of those markets focusing on smaller vehicles, as discussed in chapter 2. The company applies a standard world price policy, which means that each customer pays the same price for the vehicle at the factory gate, but they are expected to pay transport and import duties themselves. This leads to considerable differences in price for the final consumer. The company states that the taxes and tariff structures applied by emerging markets discriminate against premium segment vehicles, as they have to protect their vehicle manufacturing operations. Taking into account the higher tariff barriers, as well as logistics costs incurred in the long distances to its main markets, market size is therefore an important consideration for the company when selecting markets.

Table 7.28: Cross-tabulations: Four European-based OEMs – criteria for selecting export destinations versus the demographic information of the OEMs

Four European-based OEMs				
Most important criterion/criteria in selecting export destinations	OEM 1 - Market size	OEM 2 - Market accessibility to that market - Profitability of that market - Market size	OEM 3 - Market accessibility to that market - Profitability of that market - Market size	OEM 4 - Profitability of that market
Survey question				
Q20 – Export turnover as % of total turnover	25–50%	< 25%	25–50%	25–50%
Q21 – Vehicle production as % of global group	> 2%	> 2%	1–2%	< 1%
Q22 – Number of export destinations	5 to 10	< 5	< 5	< 5
Q23 – Who determines export destinations?	Parent OEM	Parent OEM	Parent OEM	Parent OEM
Q24 – Who sets the export price?	Parent OEM	Parent OEM	Parent OEM	Parent OEM
Q25 – In which currency is the export price?	Foreign currency	Foreign currency	Foreign currency	Foreign currency
Q26 – Export price system used	Standard world price	Market-differentiated price	Market-differentiated price	Market-differentiated price
Q27 – Which intermediaries are used to sell into foreign markets?	Sister companies	Sister companies	Sister companies	Independent intermediaries Distribution agents
Q28 – Export to unprofitable markets	No	No	No	No
Q29 – Customise vehicles for different markets	Yes	No	Yes	No

(> greater than, < smaller than)

For European-based OEMs 2 and 3 all three criteria are equally important. The companies stated that their OEM parent companies select their export destinations and all micro and macro criteria are therefore considered. Both are involved in major export programmes and concentrate on a few export markets. OEM 2 makes use of the AGOA trade arrangement to access its single export market duty free. The company manufactures a full range of derivatives and hence does not customise its vehicles for its single export destination. OEM 3 makes use of the SA–EU free trade agreement to access the EU duty free. The OEM parent companies of both OEMs set their light vehicle export prices and select their export destinations. Both OEMs apply a market-differentiated pricing policy to take account of currency fluctuations and competition in the relevant export markets. Neither OEM exports to unprofitable

markets. The influence of the OEM parent companies is thus evident in the selection of export destinations on behalf of their South African-based subsidiaries.

For European-based OEM 4 the profitability of the market is the most important criterion when selecting export destinations. This company was only involved in limited exports to a few African countries up to 2004 and does not export to unprofitable markets; thus, the influence of its parent company is also evident in the selection of export destinations.

Japanese-based OEMs

Table 7.29 reveals that for the one Japanese-based OEM involved in major light vehicle export programmes, access to the export market is the most important criterion when selecting export destinations. For the other Japanese-based OEM, which is involved in niche light vehicle exports, all three criteria are equally important.

The individual considerations when selecting export destinations for the two Japanese-based OEMs' light vehicle exports, in addition to or other than the profitability of that market, can be explained as follows.

For Japanese-based OEM 1, market accessibility is the most important criterion in the selection of its export destinations. The Japanese-based OEM's major light vehicle export programmes focus on the EU and Africa regions. In respect of the EU, the SA–EU free trade agreement (and thus accessing the EU duty free) was a major consideration when identifying export destinations for the company's light vehicle exports. This programme also focuses on the Africa region where the company's light vehicle exports are sent to a few selected markets. However, the company also capitalises on export opportunities in various other African markets in order to increase export volumes and to obtain additional IRCCs. Market access and acceptance of vehicles into those markets, in competing with other South African brands and new, grey and/or cheap used vehicle imports from other regions, are major considerations. The company customises its vehicles to meet requirements in the various markets in the EU and Africa to further enhance its competitiveness. The company also exports to unprofitable markets in order to obtain a footprint. A market-

differentiated pricing policy is applied in these markets to take account of currency fluctuations, competition and market requirements.

Table 7.29: Cross-tabulations: Two Japanese-based OEMs – criteria for selecting export destinations versus the demographic information of the OEMs

Two Japanese based OEMs		
Most important criterion/criteria in selecting export destinations	OEM 1 - Market accessibility to that market	OEM 2 - Market accessibility to that market - Profitability of that market - Market size
Survey question		
Q20 – Export turnover as % of total turnover	25–50%	< 25%
Q21 – Vehicle production as % of global group	1–2%	1–2%
Q22 – Number of export destinations	> 10	> 10
Q23 – Who determines export destinations?	Parent OEM	Parent OEM
Q24 – Who sets the export price?	Parent OEM	SA OEM
Q25 – In which currency is the export price?	Foreign currency	Foreign currency
Q26 – Export price system used	Market-differentiated price	Market-differentiated price
Q27 – Which intermediaries are used to sell into foreign markets?	Sister companies	Independent intermediaries
Q28 – Export to unprofitable markets	Yes	No
Q29 – Customise vehicles for different markets	Yes	No

(> greater than, < smaller than)

For Japanese-based OEM 2, focusing on light commercial vehicle exports to a number of African markets, all three criteria are equally important. The company has been successful in exporting its built-for-African-conditions light commercial vehicles into the region under the MIDP. The company does not customise its vehicles for the different export markets as the vehicles already suit the varying conditions. The company is able to set the export price for its export vehicles itself and states that it undertakes its own marketing to African markets and uses independent intermediaries to sell into the relevant markets. The company does not export to unprofitable markets. All macro- and micro criteria are therefore considered in its market-differentiated price policy which is intended to capitalise on export opportunities in the various export markets.

US-based OEMs

Table 7.30 reveals that, for the one US-based OEM able to select export destinations along with its parent company, the accessibility of the market is the most important criterion. For the other US-based OEM not involved in a major light vehicle export programme all three criteria are equally important.

Table 7.30: Cross-tabulations: Two US-based OEMs – criteria for selecting export destinations versus the demographic information of the OEMs

Two US based OEMs		
Most important criterion/criteria in selecting export destinations	OEM 1 - Accessibility of that market	OEM 2 - Accessibility of that market - Profitability of that market - Market size
Survey question		
Q20 – Export turnover as % of total turnover	25–50%	< 25%
Q21 – Vehicle production as % of global group	< 1%	< 1%
Q22 – Number of export destinations	5 to 10	> 10
Q23 – Who determines export destinations?	Parent OEM SA OEM	Parent OEM
Q24 – Who sets the export price?	SA OEM	SA OEM
Q25 – In which currency is the export price?	Foreign currency	Foreign currency
Q26 – Export price system used	Market-differentiated price	Market-differentiated price
Q27 – Which intermediaries are used to sell into foreign markets?	Sister companies	Sister companies Distribution agents
Q28 – Export to unprofitable markets	Yes	Yes
Q29 – Customise vehicles for different markets	Yes	Yes

(> greater than, < smaller than)

The individual considerations in respect of the most important criteria for selecting export destinations for the two US-based OEMs' light vehicle exports can be explained as follows.

For US-based OEM 1, for selecting export markets, the accessibility of that market is the most important criterion. The company's major passenger car export programme focuses on Australia, where competition is experienced from vehicles imported duty-free from Thailand and the USA as a result of the free trade agreements. The South

African manufactured vehicles on the other hand attract a 5% import duty into Australia. In view of its number of vehicle platforms manufactured in South Africa the company also capitalises on export opportunities in African and other markets. An important consideration for the company in respect of market acceptance and the accessibility of those markets is the pricing and price competitiveness of its light vehicle exports. Fierce competition is experienced from locally manufactured and imported new and/or cheap used vehicles from other regions. The company is able to set its light vehicle export price itself and is able to determine export destinations along with its parent company. The company exports to unprofitable markets in order to gain a foothold in those markets. It also applies a market-differentiated pricing policy and customises its vehicles to cater for the local tastes and market requirements to further enhance its competitiveness.

For US-based OEM 2 all three criteria are equally important. The company is involved in a relatively low passenger car export programme to Australia and other markets. The company also focuses on a number of African markets. The pricing and price competitiveness of vehicles exported is a major consideration when attempting to access those markets. Competition is experienced from other South African brands and new, grey and/or cheap used vehicle imports from other regions. In common with the other US-based OEM, the company's car export programme to Australia also competes with vehicles imported duty-free from Thailand and the USA. The company also exports to unprofitable markets to gain a foothold there and it customises its vehicles to cater for varying local tastes in these markets. The company also applies a market-differentiated pricing policy to take account of currency movements and the taxes and tariffs leviable in the relevant markets. Therefore a combination of macro- and micro market factors are important in the company's export approach.

In view of the individual considerations of the eight OEMs, the Kruskal-Wallis one-way analysis of variance by ranks test was used for questions 21 and 22 to test the equality of medians between the groups as defined in the demographical questions obtained for each of the three criteria for selecting export destinations. There is no statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p > 0.05$) between the groups for the criteria for selecting export destinations. The medians for the criteria thus do not differ significantly between the different groups.

The Mann-Whitney U test was used for questions 20 and 23 to 29 to test the equality of medians between the groups as defined in the demographical questions obtained for each of the three criteria for selecting export destinations. The results reveal that only in the case where the setting of the export price was used as a grouping variable a statistically significant difference at a significance level of 5% ($\alpha = 0.050$, $p < 0.05$) exists for one of the criteria for selecting export destinations. The result of the significant difference for the Mann-Whitney U test will be discussed in Table 7.31 below.

The result for the Mann-Whitney U test on Question 13 *(the criteria for selecting the export destinations for South African manufactured light vehicles)* and Question 24 *(whether the South African OEM or the parent company sets the export price for the company's South African manufactured light vehicle exports)* reveals the following.

The selected groups consist of

- three OEMs that set their light vehicle export prices themselves, and
- five OEMs whose parent companies set their light vehicle export prices.

Table 7.31: Ranks – criteria for selecting export destinations versus the SA OEM or parent company setting the light vehicle export price – test statistics[b]

	Market accessibility to that market	Profitability of that market	Market size
Mann-Whitney U	.000	4.500	3.000
Wilcoxon W	15.000	19.500	18.000
Z	-2.277	-.905	-1.358
Asymp. Sig. (2-tailed)	.023	.365	.174
Exact Sig. [2*(1-tailed Sig.)]	.036[a]	.393[a]	.250[a]

a. Not corrected for ties.

b. Grouping Variable: q24

Table 7.31 reveals that the significant difference relates to:

- market accessibility to that market.

The significant difference for the selected groups relates to the difference between the OEMs involved in major light vehicle export programmes and those not involved in such programmes. The five OEMs whose parent companies set the prices for their export programmes are generally involved in major light vehicle export programmes. The companies export to a few concentrated markets and make use of the duty-free trade arrangements in respect of the EU and the USA. The three OEMs that set their light vehicle export prices themselves are involved in exports to a number of African and other markets outside the duty-free trade arrangements. Competition in African and emerging markets is experienced from locally manufactured and/or new and/or cheap used vehicle imports from other regions. Taxes and tariffs are applied by emerging market governments as a source of revenue or to protect their own vehicle manufacturing industries. These costs impact negatively on vehicle pricing and price competitiveness when accessing export opportunities and gaining market acceptance for the exported vehicles in those markets. Market accessibility is therefore an important consideration for the three OEMs that set their vehicle export prices themselves.

7.6.2.4 Cross-tabulations: factors contributing to an increase in light vehicle exports versus the demographic information of the OEMs

Question 14 deals with the factors contributing to an increase in South African manufactured light vehicle exports. The role of the MIDP in sourcing decisions was the most important factor for the OEMs (mean = 92,5%). Cross-tabulations between Question 14 and the OEMs' demographic details, captured in Questions 20 to 29, highlight the unique approaches used by the OEMs.

The OEMs stated that increased exports provide them with greater flexibility in their sourcing arrangements. Economically unviable low volume model production can be discontinued locally and replaced by imported models at low to duty-free levels. In addition, original equipment component requirements can be sourced at globally competitive prices and imported duty free. The OEMs, however, reiterated the need to increase local content in South African manufactured exported vehicles. A deepening of the supply base in South Africa would result in attracting more investment to the supply chain. In addition, cost factors such as currency volatility, would be reduced

while lower logistics costs, via domestic supply instead of importing, would be achieved. The credits obtained from exports have created a mechanism for pricing vehicle exports at improved competitive levels, although logistics costs remain a huge competitive disadvantage. The rationalisation of models under the MIDP has also improved quality standards and profitability, as discussed in chapter 5.

The approaches by the four European-based OEMs, the two Japanese-based OEMs and the two US-based OEMs in respect of Question 14, based on their respective demographic details, will now be discussed.

European-based OEMs

Table 7.32 reveals that for the European-based OEMs the most important factor contributing to an increase in their light vehicle exports is the role of the MIDP in sourcing decisions. Individual considerations, however, are also important for some OEMs in their approach to vehicle exports.

For European-based OEM 1 the most important factor contributing to an increase in its light vehicle exports is the role of the MIDP in sourcing decisions. The company is involved in a major passenger car export programme to a few concentrated markets and exports almost 4 out of every 5 cars manufactured in the country. The pressure to increase local content in exported vehicles, as well as the ability to offset the high logistics costs using the MIDP, are major factors that have contributed to an increase in its light vehicle exports. The company is now able to import low volume models not manufactured in South Africa at low to duty-free levels in order to complement its domestic model mix. It is also able to import its original equipment component requirements at low to duty-free levels as part of its sourcing strategy under the MIDP.

Table 7.32: Cross-tabulations: Four European-based OEMs – factors contributing to an increase in light vehicle exports versus the demographic information of the OEMs

Four European-based OEMs				
Most important factor/s contributing to an increase in light vehicle exports	OEM 1 - Role of the MIDP in sourcing decisions	OEM 2 - Cost of capital	OEM 3 - Role of the MIDP in sourcing decisions - Exchange rates	OEM 4 - Role of the MIDP in sourcing decisions - Cost of capital
Survey question				
Q20 – Export turnover as % of total turnover	25–50%	< 25%	25–50%	25–50%
Q21 – Vehicle production as % of global group	> 2%	> 2%	1–2%	< 1%
Q22 – Number of export destinations	5 to 10	< 5	< 5	< 5
Q23 – Who determines export destinations?	Parent OEM	Parent OEM	Parent OEM	Parent OEM
Q24 – Who sets the export price?	Parent OEM	Parent OEM	Parent OEM	Parent OEM
Q25 – In which currency is the export price?	Foreign currency	Foreign currency	Foreign currency	Foreign currency
Q26 – Export price system used	Standard world price	Market-differentiated price	Market-differentiated price	Market-differentiated price
Q27 – Which intermediaries are used to sell into foreign markets?	Sister companies	Sister companies	Sister companies	Independent intermediaries Distribution agents
Q28 – Export to unprofitable markets	No	No	No	No
Q29 – Customise vehicles for different markets	Yes	No	Yes	No

(> greater than, < smaller than)

The individual considerations in terms of the most important factors for the other three European-based OEMs' light vehicle exports, other than the role of the MIDP in sourcing decisions, can be explained as follows.

For European-based OEM 2, the most important factor contributing to an increase in its light vehicle exports is the cost of capital. In 2007, the company invested in a major light vehicle export programme and its exports focus on the USA because of the favourable opportunities presented by the AGOA duty-free trade arrangement. For the company the cost of capital relates to the cost of doing business in South Africa in its aim to meet the vehicle target price as set by its parent company. The cost of capital relating to lower inflation and interest rates is also an important consideration in

stimulating domestic new vehicle demand in order to provide a support base for the company's vehicle exports. The influence by the company's parent company is evident in its export approach.

For European-based OEM 3 the most important factors contributing to an increase in its light vehicle exports are exchange rates and the role of the MIDP in sourcing decisions, and it regards these as equally important. The company's major export programmes for its two passenger car platforms focus mainly on developed markets but it also capitalises on opportunities in a few selected emerging markets. Its light vehicle export prices are set by its parent company and it applies a country price-setting policy so as to position its vehicles more competitively in the relevant segments in the export markets, in order to compete with its rivals. A favourable exchange rate therefore impacts positively on the company's vehicle pricing policy and hence, its profit margins. The company stated that in a South African context the exchange rates work both ways, as a weak currency renders exports more competitive but imports are more expensive and vice versa. A stable exchange rate for the rand is therefore preferred in terms of export planning decisions.

For European-based OEM 4, the most important factors, which are equally important, are the cost of capital and the role of the MIDP in sourcing decisions. The company only had limited light vehicle exports up to 2004 and, in 2003 the company announced an investment into a new generation light commercial vehicle export programme which never materialised. The company reiterated the importance of the MIDP as a support measure as the uncertainties around the MIDP Review finalisation at the time the investment was mooted resulted in the project being declared unviable. Other investment support programmes were available in the competing countries at the time and these were deemed more feasible. The cost of capital, relating to lower inflation and interest rates, is an important consideration for the company as it stimulates its domestic vehicle demand. A higher volume support basis for the company would provide support for its vehicle exports as well as a more competitive manufacturing cost base for its exports.

Japanese-based OEMs

Table 7.33 reveals that for the Japanese-based OEMs the dominant factor contributing to an increase in their light vehicle exports is the role of the MIDP in sourcing decisions. For the one OEM not involved in a major light vehicle export programme various other factors are also important in its approach to increase its light vehicle exports.

Table 7.33: Cross-tabulations: Two Japanese-based OEMs – factors contributing to an increase in light vehicle exports versus the demographic information of the OEMs

Two Japanese based OEMs		
Most important factor/s contributing to an increase in light vehicle exports	OEM 1 - Role of the MIDP in sourcing decisions	OEM 2 - Role of the MIDP in sourcing decisions - Cost of capital - Wage rate - Productivity improvements - Exchange rate - Trade agreements - Product quality - SA's comparative advantages
Survey question		
Q20 – Export turnover as % of total turnover	25–50%	< 25%
Q21 – Vehicle production as % of global group	1–2%	1–2%
Q22 – Number of export destinations	> 10	> 10
Q23 – Who determines export destinations?	Parent OEM	Parent OEM
Q24 – Who sets the export price?	Parent OEM	SA OEM
Q25 – In which currency is the export price?	Foreign currency	Foreign currency
Q26 – Export price system used	Market-differentiated price	Market-differentiated price
Q27 – Which intermediaries are used to sell into foreign markets?	Sister companies	Independent intermediaries
Q28 – Export to unprofitable markets	Yes	No
Q29 – Customise vehicles for different markets	Yes	No

(> greater than, < smaller than)

For Japanese-based OEM 1 the most important factor contributing to an increase in its light vehicle exports is the role of the MIDP in sourcing decisions. The company is the top light vehicle exporter from South Africa and the MIDP is essential for offsetting logistics costs in respect of its main export markets in Europe and Africa. The

company is also the domestic market leader. The MIDP is thus also essential for the company in increasing the local content of its exported vehicles. An increase in local content would imply achieving duty neutrality on imported models to complement its model market mix in the domestic market and its imported original equipment component requirements.

For Japanese-based OEM 2 various factors are equally important as the role of the MIDP in sourcing decisions in contributing to an increase in its light vehicle exports. The company's built-for-African-conditions light commercial vehicle exports focus on a number of African markets. Fierce competition is experienced from other South African brands as well as new, grey and/or cheap used vehicle imports from other countries. The company is able to set the export price for its exported vehicles itself and a market differentiated pricing policy is applied to take account of taxes and tariffs and currency movements. The costs of setting up independent intermediaries and doing marketing research in African markets also impact on its vehicle pricing and price competitiveness. The manufacturing cost base in South Africa is therefore important to increase light vehicle exports and obtain acceptance in African markets. The SADC integration into a free trade area is also important for the company to increase its vehicle exports. The company was the main exporter of commercial vehicles to Africa up to 2006 and is still one of the main exporters to Africa. The company stated that, in competing with new and/or used vehicle imports, product quality ensures customer loyalty.

US-based OEMs

Table 7.34 reveals that for both the US-based OEMs the dominant factor contributing to an increase in their light vehicle exports is the role of the MIDP in sourcing decisions. For the one OEM not involved in a major light vehicle export programme other considerations are also important in respect of its light vehicle export performance.

For US-based OEM 1 the most important factor contributing to an increase in its light vehicle exports is the role of the MIDP in sourcing decisions. The company's major passenger car export programme focuses on Australia while its light commercial vehicle exports capitalise on opportunities in a number of African markets. As far as

Australia is concerned competition is experienced from vehicles imported duty-free from Thailand and the USA, as both countries enjoy a free trade agreement with Australia. South African manufactured vehicles attract a 5% import duty into Australia. Fierce competition in African markets is experienced from new and/or cheap used vehicle imports, most notably from Asian countries. The role of the MIDP thus is essential to offset logistics costs as well as for vehicle pricing and price competitiveness against rivals in those markets. Increased local content in its exported vehicles also enables the company to achieve duty neutrality on its imported models and these complement its domestic market mix. Its original equipment component requirements can also be imported at low to duty-free levels.

Table 7.34: Cross-tabulations: Two US-based OEMs – factors contributing to an increase in light vehicle exports versus the demographic information of the OEMs

Two US based OEMs		
Most important factor/s contributing to an increase in light vehicle exports	OEM 1 - Role of the MIDP in sourcing decisions	OEM 2 - Role of the MIDP in sourcing decisions - Cost of capital - Wage rates - Productivity improvements - Exchange rates
Survey question		
Q20 – Export turnover as % of total turnover	25–50%	< 25%
Q21 – Vehicle production as % of global group	< 1%	< 1%
Q22 – Number of export destinations	5–10	> 10
Q23 – Who determines export destinations?	Parent OEM SA OEM	Parent OEM
Q24 – Who sets the export price?	SA OEM	SA OEM
Q25 – In which currency is the export price?	Foreign currency	Foreign currency
Q26 – Export price system used	Market-differentiated price	Market-differentiated price
Q27 – Which intermediaries are used to sell into foreign markets?	Sister companies	Sister companies Distribution agents
Q28 – Export to unprofitable markets	Yes	Yes
Q29 – Customise vehicles for different markets	Yes	Yes

(> greater than, < smaller than)

For US-based OEM 2 various factors are equally as important as the role of the MIDP in sourcing decisions. The company's relatively low volume passenger car export

programme focuses on Australia and other markets, where the company experiences the same conditions as US-based OEM 1. The company's passenger car exports contain a relatively high imported content, thus a favourable exchange rate impacts positively on the manufacturing cost base in South Africa, as well as its profit margins. In respect of African and other emerging markets various cost factors impact on the company's vehicle pricing and price competitiveness. It applies a market differentiated pricing model in competing with locally manufactured and new, grey and/or cheap used vehicle imports from other countries. The company also customises its vehicles to comply with local conditions of the relevant export markets.

In view of the eight OEMs' individual considerations, the Kruskal-Wallis one-way analysis of variance by ranks test for questions 21 and 22 was used to test the equality of medians between the groups as defined in the demographical questions obtained for each of the 12 factors contributing to an increase in their light vehicle exports. There is no statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p > 0.05$) between the groups for the 12 factors. The medians for the factors thus do not differ significantly between the different groups.

The Mann-Whitney U test was used for questions 20 and 23 to 29 to test the equality of medians between the groups as defined in the demographical questions obtained for each of the 12 factors contributing to an increase in their light vehicle exports. There is no statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p > 0.05$) between the groups for the 12 factors. The medians for the factors thus do not differ significantly between the different groups.

7.7 SUMMARY OF CHAPTER 7

Chapter 7 focused on the analysis and presentation of the research results for the empirical study to analyse the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008). The analysis followed the same sequence as the survey.

Part 1 dealt with the respondents' general business operations. All respondents strongly agree that the South African automotive industry's sustainability depends on MIDP support. The main focus of domestic vehicle production for the OEMs under the

MIDP was exports. The stakeholders were, however, divided in their responses when asked to say whether a sound domestic base is also required to support vehicle exports. Considering the high costs of logistics, a few concentrated markets were regarded as being more important for OEMs' light vehicle exports than a large number of export markets.

Part 2 focused on the marketing principles followed by South African light vehicle manufacturers in relation to the MIDP. For the OEMs the most important objectives of the MIDP, in order of priority, were to generate light vehicle exports, attract investments in vehicle plants locally and generate automotive component exports. For the stakeholders, the most important objectives of the MIDP were to generate light vehicle exports, generate automotive component exports and attract investments in vehicle plants locally. There was strong agreement among the respondents about the importance of future government support in the form of the MIDP or, if not, a new support programme for the OEMs and the South African automotive industry. The SA–EU free trade agreement was perceived as having a greater impact on the OEMs' light vehicle exports than the AGOA trade arrangement. In respect of the OEMs' image for their light vehicle exports when attempting to penetrate new export markets, reliability of supply was more important for the OEMs than quality or cost competitiveness. The stakeholders regarded quality as being more important than reliability of supply or cost competitiveness. The importance of the level of OEM decision-making power in determining new export destinations ranges from medium to low. The US-based and Japanese-based OEMs are perceived as having a higher level of influence than the European-based OEMs. The respondents were in agreement that the most important constraint on access into foreign markets for their light vehicle exports was the cost of logistics.

Part 3 focused on the strategic aspects of the South African OEMs relating to the MIDP and their light vehicle exports. The most important determinant of foreign-market pricing when setting the export price for their South African manufactured light vehicles was costs relating to manufacturing, marketing and transportation. For the stakeholders, the influence of the OEM parent company as the buyer was the dominant determinant of foreign-market pricing as they generally set the light vehicle export price on behalf of the domestic OEMs. The dominant criterion for selecting

export destinations for South African manufactured light vehicle exports was market accessibility to that market and the most important factor contributing to an increase in light vehicle exports was the role of the MIDP in sourcing decisions. Individual OEM considerations, however, were also important and mainly reflected the different approaches in the export strategies of the OEMs involved in major light vehicle export programmes and those that are not. The qualitative views of the OEMs and the stakeholders clearly point to the relevance of the MIDP as the main determinant of the change in their respective export strategies since 1995. The impact of the MIDP on these export strategies was regarded as the overwhelming factor in being considered for export-oriented, new model generation investments and in offsetting logistics costs in order to compete internationally.

Part 4 described the demographic details of the eight OEMs. The responses in respect of the various criteria reflected the strong influence of their OEM parent companies. The demographic details were cross-correlated with the variables impacting on the business operations of South African light vehicle manufacturers in Parts 1, 2 and 3. Spearman's rank-order correlation coefficient, the Mann-Whitney U test and the Kruskal-Wallis one-way analysis of variance by ranks test were used extensively. The results were used to determine the significance of the correlations between the average ranks and the equality of medians for the selected groups based on their respective demographic details across the variables.

In chapter 8 the research findings will be assessed, and conclusions and recommendations relating to the primary as well as the secondary objectives of this study will be made.

CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

The evolution of the automotive policy regime in South Africa had a decisive impact on the actions of domestic automotive firms, as highlighted in chapter 4. Before the introduction of the MIDP in September 1995, the domestic industry was governed by six local content programmes, running from 1961 to 1995. Up to 1995 highly protective import duties and local content requirements were in place aimed at fostering the development of the domestic automotive industry. Under the various local content programmes, the South African-based OEMs adapted and responded to requirements to avoid paying excise penalties on their domestic operations. Although Phase VI of the local content programmes introduced a new direction by counting exports as local content, light vehicle exports remained subdued. A wide variety of models, manufactured in small volumes at uncompetitive prices, as well as restrictive licence agreements, impacted on light vehicle exports.

Since 1994, South Africa has had to abide by the new business rules that followed the country's economic and political liberalisation. The introduction of the MIDP in 1995 led to major structural changes in the domestic automotive industry, as the highly protected and inwardly focused South African automotive industry became fully integrated into the global automotive environment. The 1999 and 2002 MIDP Reviews undertaken aimed at extending the programme and introducing corrective action to encourage the industry to achieve sustainable future growth. The 2005 MIDP Review was concluded in September 2008, two years behind schedule. Subsequently, a new programme in the form of the Automotive Production Development Programme (APDP) was announced for introduction in 2013. The vision for the APDP, which is shared by industry and government, is to double vehicle production to 1,2 million units by 2020.

In the South African context, in common with other countries, the strategies of a few dominant OEMs, mainly operating from the Triad countries, have a major impact on the developments of the domestic automotive environment. Vehicle development, design and international marketing functions, and thus the decision-making power, reside with the OEM parent companies. The South African-based OEMs have to

compete for new model generation investments and export business against fierce competition from sister companies around the world and cost-parity exercises generally inform the investment allocation decisions of OEM parent companies

The MIDP, through its outward orientation, potentially lays the industry open to exogenous forces. These forces are unpredictable and possibly both beneficial and damaging to the industry. In the framework of this study the key question is to establish how the individual South African-based OEMs have responded to the policy regime in the form of the MIDP within the dynamic global environment. The primary objective of this study is to analyse the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008).

It is recognised that, since 2008, the automotive industry globally has been characterised by major structural adjustments and pressures owing to the impact of the global financial crisis. Consequently, since the fourth quarter of 2008, all sectors of the domestic automotive industry value chain have been experiencing an unprecedented cash flow and viability crisis. The economic recession in key developed countries as well as a tougher competitive environment are already evident in the decline of the domestic industry's light vehicle exports during the first half of 2009. This study precludes the economic meltdown period and the potential impact on the global automotive environment in the future. However, it does cover the extended period from 1995 when the MIDP was introduced up to 2008, which remains important for understanding the efficacy of the MIDP.

The empirical research results were presented, analysed and discussed in chapter 7. Chapter 8 aims to link the research objectives to the empirical research conducted. The research objectives are stated and then reviewed in the light of the data obtained. Finally, recommendations to the study on the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008) are presented. A number of future areas for research relating to the objectives of this study will also be presented. The conclusions and recommendations presented below will follow a similar sequence to chapter 7.

The main findings of the study will now be discussed.

8.2 MAIN FINDINGS OF THE STUDY

The selected groups, consisting of eight OEMs and 15 key industry stakeholders from government, business and labour, provided clear areas of general agreement and important considerations in respect of their responses to the questions in the empirical survey. A further analysis of the data, however, revealed that unique OEM considerations are also important and require recognition.

Table 8.1 below summarises the most important considerations versus the respondents' individual considerations in order to facilitate the discussion in respect of the conclusions reached.

Table 8.1: Dominant considerations versus individual considerations relating to the responses to the empirical survey

Question	Considerations		Comment
	Dominant	Individual	
Question 2 SA automotive industry will not cope with global competition without MIDP support	✓		There is general agreement, without exception, by the selected groups that the domestic automotive industry would not be able to cope with global competition without MIDP support.
Question 3 The main focus of the SA OEMs' light vehicle production	✓	✓	The dominant focus for the selected groups is exports. For two OEMs and 50% of the stakeholders the main focus was on the domestic market. The two OEMs sell more vehicles in the domestic market than they export while the stakeholders' function in the supply chain influences their perceptions.
Question 4 The importance of a few concentrated export markets versus multiple export markets	✓	✓	The dominant view is that a few concentrated markets are more important. One OEM regards multiple export markets as more important, which is in line with the company's vehicle production profile.
Question 5 The greatest value of the MIDP in the global automotive environment for SA OEMs	✓	✓	There was general agreement by the selected groups that the greatest value of the MIDP was for generating light vehicle exports. The selected groups viewed the MIDP's value in generating automotive component exports and attracting investments into vehicle plants locally, not necessarily in that order.
Question 6 The dependence on future government support by the SA OEMs and the SA automotive industry in general	✓		There was general agreement among the groups on dependence on future government support by the OEMs and the domestic automotive industry in general.

Table 8.1: Dominant considerations versus individual considerations relating to the responses to the empirical survey - continued

Question 7 The impact of the SA-EU free trade agreement in generating export business into the EU	✓	✓	The selected groups perceived the impact of the SA–EU free trade agreement in generating export business into the EU as being towards the higher end of the scale. However, not all OEMs are benefiting from this relatively new agreement.
Question 8 The impact of the AGOA trade arrangement in generating export business into the USA	✓	✓	The selected groups perceived the impact of the AGOA arrangement as being towards the higher end of the scale. However, not all OEMs are benefiting from this temporary arrangement.
Question 9 The importance of the image of the OEMs for their SA manufactured light vehicle exports in penetrating new markets in terms of three variables	✓	✓	The selected groups perceive the importance of reliability of supply, quality and cost competitiveness in respect of the image of the OEMs in penetrating new markets differently in some instances. The differences relate to the different approaches of OEMs involved in major light vehicle export programmes and those that are not.
Question 10 The influence level of the SA OEMs in the decision making when determining new export destinations	✓	✓	The level of influence of the OEMs is perceived differently by the selected groups. The US-based and Japanese-based OEMs have a higher level of influence than the European-based OEMs. The stakeholders' function in the supply chain influences the perceptions of this group.
Question 11 The most important constraint factor impacting on market access for SA manufactured light vehicles	✓	✓	The dominant constraint factor for the selected groups is logistics costs. Other factors, however, are also important for individual OEMs owing to their unique approaches.
Question 12 The most important determinant of foreign-market pricing for SA manufactured light vehicles	✓	✓	The dominant determinants for the selected groups are the OEM parent company as the buyer and costs. Other determinants, however, are also important for individual OEMs owing to their unique approaches.
Question 13 The most important criterion for selecting export destinations for SA manufactured light vehicles	✓	✓	The dominant criterion for the selected groups is the accessibility to the export market. Other criteria, however, are also important for individual OEMs owing to their unique approaches and the influence of their parent companies.
Question 14 The most important factor contributing to an increase in SA manufactured light vehicle exports	✓	✓	The dominant factor for the selected groups is the role of the MIDP in sourcing decisions. Other factors, however, are also important for individual OEMs owing to their unique approaches.

The achievement of the stated primary and secondary objectives of this study will be discussed next.

8.3 ACHIEVEMENT OF THE STATED OBJECTIVES OF THE STUDY

A total of seven hypotheses were set and tested on the basis of responses to the questions in the empirical survey of this study. The hypotheses are aligned with the primary and secondary objectives of the study as well as with the questions contained in the empirical survey, as outlined in chapter 6. The Mann Whitney U test, Kruskal-Wallis one-way analysis of variance by ranks test and Spearman's rank-order correlation coefficient were used in the empirical research analysis to test and substantiate the hypotheses.

The primary objective of the study, followed by the secondary objectives of the study, will now be discussed.

The *primary objective* of the study was

- to analyse the impact of the Motor Industry Development Programme (MIDP) on the export strategies of the South African light motor vehicle manufacturers (1995–2008).

Without exception, all the respondents stated that the South African automotive industry would not be able to cope with global competition without MIDP support. These groups believe that the greatest value of the MIDP is embedded in its ability to generate light vehicle exports. The respondents clearly confirmed that, since 1995, the MIDP has been the primary determinant of change in the export strategies of South African OEMs. The selected groups stated unequivocally that without the MIDP an export strategy would not have existed in the country. The MIDP has thus had a decisive impact on the export strategies of South African OEMs in the global automotive environment. The role of the MIDP in sourcing decisions was ranked by the South African-based OEMs as the most important factor contributing to an increase in their light vehicle exports, and this it would seem is what underlies the impact of the MIDP. It was, however, recognised that certain exogenous factors impact on the business operations of the domestic automotive industry as well as the South African-based OEMs, and thus on the performance of the MIDP. The new APDP has as its vision the doubling of vehicle production in South Africa by 2020, and government support is imperative if this is to be realised. The sustainability of OEMs' business operations and long-term policy certainty in order to influence parent

companies' investment decisions for new generation, export-oriented model investments depend on future government support.

The perceived importance of government support in the form of the MIDP to sustain the automotive industry was tested by the following hypothesis.

Hypothesis 1: There is a general agreement between the selected groups on the importance of government support in the form of the MIDP to sustain the automotive industry in South Africa.

In view of the clear views stated by the respondents, there is general agreement between the selected groups on the importance of government support in the form of the MIDP to sustain the automotive industry in the country. The null hypothesis is therefore accepted.

In addition to the primary objective, a number of *secondary objectives* were also indentified, and these will now be discussed.

Secondary objective 1

To *determine* whether the main focus of the South African OEMs' domestic light vehicle production is being aimed at the domestic market or exports.

Six OEMs involved in major export programmes, three business stakeholders with exports as their primary function, the labour stakeholder and two government stakeholders all regarded exports as the most important function for the South African OEMs' light vehicle production. Exports are important to the OEMs because the import duties on OEMs' CBU imports and their original equipment component requirements can be offset by these exports. Since the domestic market is too small to sustain a viable light vehicle manufacturing industry, exports are considered to be imperative in order for the OEMs to achieve the relatively high volumes needed to justify investment in manufacturing operations.

Two OEMs selling more vehicles in the domestic market than in the export market, as well as those six stakeholders whose subsectors primarily depend on the domestic

market, regarded the domestic market as more important. It was recognised that more than 50% of all OEM revenue is generated in the domestic market and that a sound domestic market is required as a good support base for launching light vehicle export programmes.

Owing to the diverse responses from the selected groups relating to unique circumstances and strategic priorities, no hypothesis was set or formulated. In conclusion it can be stated that, although it is recognised that a strong domestic market is necessary for launching vehicle exports, there is general agreement by the majority of respondents that the main focus of the South African OEMs' light vehicle production is exports.

Secondary objective 2

To *determine* whether a few concentrated or multiple export markets are preferred for South African OEMs' light vehicle exports.

Eleven stakeholders and seven OEMs involved in major export programmes focus on a few concentrated markets to obtain economies-of-scale benefits in the area of logistics costs. The preference of the OEM parent companies is another important reason for focusing on a few concentrated markets. The unique approach by one company focusing on multiple export markets, however, is recognised. The industry's export data confirmed that, in 2008, despite the 79 light vehicle export destinations, the USA, Japan, Australia and the EU accounted for 63% of light vehicle export volume from South Africa. The developed and mature markets therefore consumed the bulk of the country's major premium manufactured light vehicle export programmes, although exports are increasingly growing in the direction of new export markets.

One US-based OEM's vehicle production profile and its scope to select export destinations along with its parent company allow the company to pursue multiple export markets. Four stakeholders also recognised the increasing export opportunities outside the industry's traditional main markets. Furthermore, there is recognition that most OEMs, although focusing on a few concentrated markets, capitalise on light

vehicle export opportunities in various markets in order to generate additional IRCC benefits.

Owing to the unique position taken by one OEM in terms of multiple export markets and the strategic priorities presented by four stakeholders, no hypothesis was set or tested. In conclusion, however, there is general agreement by the majority of the selected groups that the focus of South African OEMs' light vehicle exports should be on a few concentrated export markets.

Secondary objective 3

To *determine* the impact of the SA–EU free trade agreement and AGOA trade arrangement on the generation of export business for the South African OEMs.

From a South African perspective the implications of the SA–EU free trade agreement for the automotive industry were only finalised on 15 December 2006. It was recognised that this relatively new agreement is destined to become increasingly important for South African manufactured light vehicle exports because of the major export programmes channelled to the EU from 2008 onwards. These vehicle export programmes leveraged significant automotive component export business for the OEMs to the EU as well. The EU has extensively displaced its own manufacturing to lower-cost developing countries, including South Africa. In this regard the integration of automotive component suppliers in the export value chain has been the great success of the MIDP, as the benefits of the programme have trickled down to domestic automotive component manufacturers as well.

The AGOA trade arrangement, which remains a temporary arrangement, is perceived as being not as important as the SA–EU free trade agreement. The perception is that only limited OEMs benefit from the arrangement for their light vehicle and automotive component exports. It was, however, recognised that the arrangement has provided impetus for further CBU export programmes to be channelled to the USA, which became the industry's top light vehicle export destination in 2008. Both trade arrangements stimulate opportunities for a chain of collaborative arrangements with automotive manufacturing companies from other non-EU and non-US countries. These collaborative arrangements enhance the domestic automotive industry's ability

to increasingly take advantage of opportunities presented by these trade arrangements.

In conclusion, there is general agreement by the majority of the respondents, substantiated by the industry's export data, that the duty- and quota-free access to the EU and the USA enhances the performance of the MIDP. Owing to unique OEM positions and strategies as well as the diverse responses by the stakeholders in terms of their respective support functions, no hypothesis was set or tested.

Secondary objective 4

To *determine* the importance of the image of the South African OEMs in respect of the reliability of supply, quality and cost competitiveness of their South African manufactured light vehicle exports in penetrating new export markets.

In a South African context reliability of supply could be linked to logistics, relating to distance to markets; product quality relates to adherence to global standards in the source plant, while cost competitiveness relates to international competitiveness in competing for export business. The South African manufactured light vehicles are exported by the OEMs on behalf of their parent companies. Acceptance of the South African manufactured light vehicles in the export markets is high, considering the number of export destinations as well as the industry's main export destinations, which are demanding, mature markets. Some OEMs' products are advanced in that they provide a sustainable competitive advantage on the basis of product quality and reliability of supply. For other OEMs exporting to African and other emerging markets, they need to compete on price, as a result of the requirements of the specific export market. Generic or standard products thus have to compete with other generic products on the basis of cost. The MIDP contributes to cost competitiveness and without this the industry would not be able to compete. As a result of the MIDP, vehicle export opportunities in Africa and other emerging markets are increasing.

The perceived impact of the importance of the South African-based OEMs' image in respect of reliability of supply, quality and cost competitiveness in contributing to an increase in their light vehicle exports was tested by the following hypothesis.

Hypothesis 2: There is a general agreement between the selected importance rating groups related to the South African OEMs' image in respect of reliability of supply, quality and cost competitiveness for each of the factors contributing to an increase in their light vehicle exports.

An analysis based on the Kruskal-Wallis one-way analysis of variance by ranks test revealed that in terms of reliability of supply and quality there was no statistically significant difference (all p values > 0.05) in the equality of medians obtained for each of the 12 factors contributing to an increase in light vehicle exports for the selected groups. The null hypothesis relating to the importance rating groups for *reliability of supply* and *quality* in respect of the OEMs' image for each of the factors contributing to their light vehicle exports is therefore accepted.

An analysis based on the Kruskal-Wallis one-way analysis of variance by ranks test revealed that, in terms of cost competitiveness, there was a statistically significant difference (all p values < 0.05) between the equality of medians obtained for the selected importance groups. This difference related to the importance rating groups for cost competitiveness and

- exchange rates
- trade agreements
- South Africa's comparative advantages.

This therefore implies that the viewpoint of the importance of cost competitiveness of South African manufactured light vehicle exports in penetrating new markets impacts the ratings of exchange rates, trade agreements and South Africa's comparative advantages. The significant differences relate to the specific approaches of the OEMs involved in major light vehicle export programmes and those that are not. The OEMs that are involved in major light vehicle export programmes focus on a few concentrated markets which are identified by their OEM parent companies and they make use of the free trade arrangements with the EU and the USA. The OEMs not involved in these export programmes capitalise on export opportunities in multiple African and emerging markets outside the free trade arrangements. Cost competitiveness is a major consideration for these OEMs in order to access the export opportunities in these markets. The null hypothesis relating to the importance rating

groups for cost competitiveness in terms of the factors contributing to their light vehicle exports cannot be accepted as the null hypothesis was rejected in the case of the three factors.

In view of the above it is the understanding that some OEMs present unique positions to capitalise only on export opportunities in African and other emerging markets. In conclusion, there is general agreement that the image in respect of all three dimensions is important for penetrating new markets and hence contributing to an increase in the OEMs' light vehicle exports.

Secondary objective 5

To *determine* the South African OEMs' level of influence in decision-making in terms of determining new export destinations for their South African manufactured light vehicles.

The selected groups perceive the South African OEMs' level of decision-making power in determining new export destinations for South African manufactured light vehicle exports to range from low to medium to high. The level of influence is perceived to be higher for the US-based and Japanese-based OEMs, which have a medium level of influence compared to the European-based OEMs, which have a low level of influence. One US-based OEM is able to determine export destinations in conjunction with its parent company. Both the US-based OEMs and one of the two Japanese-based OEMs are able to set their light vehicle export prices themselves. As far as the four European-based OEMs are concerned, their parent companies set their light vehicle export prices and determine the export destinations for their South African manufactured light vehicles.

Sourcing and global planning strategies are generally controlled centrally. Hence, the process design is done in South Africa and the product design is done overseas. The domestic OEMs thus have to improve their process capabilities as a precondition for continued supply into the global automotive industry. In addition, the domestic OEMs have to focus on areas such as improved labour productivity, logistics cost control and upgrading of their production facilities, which are all required for ensuring export success in penetrating new export markets. All the South African-based OEMs,

directly or indirectly, thus have some level of influence in the decision-making process for determining new export destinations for their South African manufactured light vehicles. The stakeholders generally reflected the perceptions of their respective support functions and roles in the broader automotive value chain.

The perceived impact of the level of influence of the South African-based OEMs' decision-making power when determining new export destinations in contributing to an increase in their light vehicle exports was tested by the following hypothesis.

Hypothesis 3: There is a general agreement between the selected level of influence groups related to the South African OEMs' level of decision-making power in determining new export destinations for the factors that could contribute to an increase in their light vehicle exports.

An analysis based on the Kruskal-Wallis one-way analysis of variance by ranks test revealed that there was no statistically significant difference (all p values > 0.05) in the equality of medians obtained across the 12 factors contributing to an increase in light vehicle exports for the selected groups. The null hypothesis relating to the selected level of influence groups' decision-making power by South African-based OEMs for each of the factors contributing to an increase in their light vehicle exports is therefore accepted.

The level of decision-making power of the OEMs is perceived to vary between the European-based OEMs, whose decision-making power is perceived to be at a low level, and the US-based and the Japanese-based OEMs, whose decision-making power is perceived to be at a medium level. In conclusion, there is general agreement that the influence of OEM parent companies is strong when determining new export destinations and hence when contributing to an increase in South African manufactured light vehicle exports.

Secondary objective 6

To *determine* the most important factor of constraint impacting on market access to foreign markets for South African manufactured light vehicles.

For the selected groups the dominant constraint factor impacting on access to foreign markets for South African manufactured light vehicles for the selected groups is *logistics costs.* The South African operations incur significant cost disadvantages in the area of inbound and outbound logistics. South Africa's distance from most major markets means that logistics costs are high, putting OEMs at a disadvantage compared with other OEMs in much closer proximity to major markets. These high costs are a function of high transport costs and long distances to foreign markets, as well as high levels of imported content. Inbound logistics in South Africa are also high owing to inefficient port and rail infrastructure.

The perceived impact of certain demographical groups (as defined in questions 20 to 29) on the importance of constraint factors on access to foreign markets for South African manufactured light vehicles was tested by the following hypothesis.

Hypothesis 4: There is a general agreement between the selected demographical groups regarding the importance of constraint factors on access to foreign markets for South African manufactured light vehicles.

The Kruskal-Wallis one-way analysis of variance by ranks test was used for questions 21 and 22 to test the equality of medians between the groups as defined in the demographical questions obtained for each of the six factors of constraint. There is no statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p > 0.05$) between the groups for the six factors of constraint. The medians for the factors of constraint thus do not differ significantly between the groups.

The Mann-Whitney U test was used for questions 20 and 23 to 29 to test the equality of medians between the groups as defined in the demographical questions obtained for each of the six factors of constraint. The results revealed that only in the case where export turnover was used as grouping variable a statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p < 0.05$) exists for two of the factors of constraint.

The two groups tested consisted of the

- three OEMs with an export turnover as a percentage of the company's total turnover of less than 25%, and
- five OEMs with an export turnover as a percentage of the company's total turnover of between 25 and 50%.

The statistically significant differences related to *non-tariff barriers* and *currency movements* as factors of constraint. The differences relate to the OEMs involved in major light vehicle export programmes and those capitalising on export opportunities in African and other emerging markets. Currency movements, in particular the volatility of the rand and non-tariff barriers add to costs and hence impact on vehicle pricing and price competitiveness when competing for export business in those markets. The null hypothesis relating to the selected demographical groups regarding the importance of constraint factors on access to foreign markets for South African manufactured light vehicles cannot be accepted as the null hypothesis was rejected in the case of two factors.

In conclusion, despite the unique positions of a few OEMs, there is general agreement that the dominant constraint factor when accessing foreign markets for light vehicle exports is logistics costs.

Secondary objective 7

To determine the most important determinant of foreign-market pricing in setting the export price for South African manufactured light vehicles.

The OEMs believed the dominant determinant to be *costs relating to manufacturing, marketing and transportation.* For the stakeholders, *the OEM parent company as the buyer* is the most important determinant of foreign-market pricing. The stakeholders stated that the OEM parent companies as the buyers decide on and set the target light vehicle export price range.

One of the major challenges facing the domestic automotive industry is the issue of international competitiveness. In an intensely competitive global environment, improved international competitiveness is important when selling into foreign markets.

Furthermore, a viable and competitive manufacturing cost base is imperative if the OEM parent companies are to consider their South African subsidiaries for new generation, export-oriented model investments. In doing so, parent companies generally apply a cost-parity model to assess the strengths and weaknesses of their subsidiaries around the world.

The perceived impact of certain demographical groups (as defined in questions 20 to 29) on the importance of the determinants of foreign-market pricing in setting the export price for South African manufactured light vehicles was tested by the following hypothesis.

Hypothesis 5: There is general agreement between the selected demographical groups regarding the importance of the determinants of foreign-market pricing in setting the export price for South African manufactured light vehicles.

The Kruskal-Wallis one-way analysis of variance by ranks test was used for questions 21 and 22 to test the equality of medians between the groups as defined in the demographical questions obtained for each of the 11 determinants of foreign-market pricing. There is no statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p > 0.05$) between the groups for the determinants of foreign-market pricing. The medians for the determinants of foreign-market pricing thus do not differ significantly between the groups.

The Mann-Whitney U test was used for questions 20 and 23 to 29 to test the equality of medians between the groups as defined in the demographical questions obtained for each of the 11 determinants of foreign-market pricing. The results reveal that only in the case where exports to unprofitable markets was used as grouping variable a statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p < 0.05$) exists for one of the determinants of foreign-market pricing.

The two groups tested were the

- five OEMs that do not export to unprofitable markets, and
- three OEMs that do export to unprofitable markets.

This difference was in terms of *taxes and tariffs* as a determinant of foreign-market pricing and related to the different approaches used by the OEMs involved in major light vehicle export programmes and the unique approaches of those capitalising on export opportunities in a number of African and other emerging markets. The major light vehicle export programmes focus on Europe, the USA and Japan; with duty-free and quota-free arrangements in place in Europe and the USA. The OEMs' primary focus is thus on lowering and controlling costs while remaining within the range of the light vehicle export prices set by their parent companies. Some OEMs also export to markets outside the main markets where no trade arrangements are in place. Taxes and tariffs have to be added to their pricing and thus affect their price competitiveness. In these markets competition in the form of locally manufactured and/or imported new, grey or cheap used vehicles from other regions is encountered. The null hypothesis relating to the selected demographical groups regarding the importance of the determinants of foreign-market pricing in setting the export price for South African manufactured light vehicles cannot be accepted as the null hypothesis was rejected in the case of one determinant.

In conclusion, despite the unique position of a few OEMs, there is general agreement that costs are the dominant determinant of foreign-market pricing when setting the export price for South African manufactured light vehicles.

Secondary objective 8

To *determine* the most important criterion for selecting export destinations for South African manufactured light vehicles.

The stakeholders rated the *accessibility of the market* as the most important criterion in selecting export destinations for South African manufactured light vehicles. The stakeholders stated that the trade arrangements in the industry's main export destinations, namely the EU and the USA, enhance the OEMs' export performance. However, tariff and non-tariff barriers in emerging markets could counter market accessibility and hence the export opportunities in those markets.

The OEMs' most important criterion for selecting export destinations for their South African manufactured light vehicles is the *profitability of that market*, which reflects the

strong influence of their parent companies. With the exception of one US-based OEM, which is able to select its export destinations in consultation with its parent company, the parent companies of the other OEMs make the selection for them. In doing so, the parent companies consider all micro- and macroeconomic factors in terms of their overall corporate goals. The decision-making power of the OEM parent companies is evidenced by the choice of markets such that advantage is taken of such benefits as the SA–EU free trade agreement for entry into the EU and the AGOA trade arrangement for entry into the USA.

The perceived impact of certain demographical groups (as defined in questions 20 to 29) on the importance of the criteria for selecting export destinations for South African manufactured light vehicles was tested by the following hypothesis.

Hypothesis 6: There is general agreement between the selected demographical groups regarding the importance of selection criteria when selecting export destinations for South African manufactured light vehicles.

The Kruskal-Wallis one-way analysis of variance by ranks test was used for questions 21 and 22 to test the equality of medians between the groups as defined in the demographical questions obtained for each of the three criteria for selecting export destinations. There is no statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p > 0.05$) between the groups for the criteria for selecting export destinations. The medians for the criteria thus do not differ significantly between the different groups.

The Mann-Whitney U test was used for questions 20 and 23 to 29 to test the equality of medians between the groups as defined in the demographical questions obtained for each of the three criteria for selecting export destinations. The results reveal that only in the case where the setting of the export price was used as a grouping variable a significant difference at a significance level of 5% ($\alpha = 0.050$, $p < 0.05$) exists for one of the criteria for selecting export destinations.

The two groups tested consisted of the

- three OEMs that set their light vehicle export prices themselves, and
- five OEMs whose parent companies set their light vehicle export prices for them.

The statistically significant difference for the selected groups related to the *accessibility of the particular export market,* and hence, the micro level focus of OEMs whose parent companies set the export price and the macro level focus of OEMs that set prices themselves. The former are all involved in major light vehicle export programmes, with a focus on the profitability of the export markets in line with the corporate goals of the OEM parent companies, which include maximising profitability and increasing market share. The latter OEMs are involved in light vehicle exports to a number of African and other markets. Here market accessibility relates to the acceptance of products by the market, vehicle pricing policies, tariff barriers and non-tariff barriers. This therefore implies that market accessibility determines the level of export success in those markets. The null hypothesis relating to the selected demographical groups regarding the importance of the selection criteria when selecting export destinations for South African manufactured light vehicles cannot be accepted as the null hypothesis was rejected in the case of one criterion.

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Despite the unique OEM approaches to selecting export destinations, the influence of the OEM parent companies is evident. In conclusion, there is general agreement that the profitability of the export market is the dominant criterion for the OEMs in selecting export destinations for their South African manufactured light vehicles.

<u>Secondary objective 9</u>

To *determine* the most important factor contributing to an increase in South African manufactured light vehicle exports.

For the stakeholders *product quality* was the dominant factor that contributes to an increase in light vehicle exports. The stakeholders stated that the industry's main export markets for its premium segment vehicles are demanding, developed markets. Product quality is thus imperative for product acceptance in those markets.

The OEMs' most important factor contributing to an increase in their South African manufactured light vehicle exports is the role of *the MIDP in sourcing decisions*. The domestic OEMs' international competitiveness, which revolves around the MIDP, forms part of the marketing strategies and global competitiveness of the OEM parent companies. Rising exports give the OEMs greater flexibility in their sourcing arrangements. World-best prices can be elicited from suppliers in order to lower manufacturing costs. However, a main focus of the MIDP is its emphasis on local content. The role of the MIDP in sourcing decisions therefore reflects demands to increase local content in the South African manufactured exported vehicles. An increase in local content would mean a deepening of the South African supply base and more business for suppliers in the domestic market. The increased viability of supply would in turn result in attracting more investment in the supply chain. Cost factors such as currency volatility and logistics costs could therefore be eliminated using domestic supply instead of importing.

The gradual phase down of benefits under the MIDP up to 2012 implies that exports and/or local content has to increase in order to receive the same benefits as the previous year. The OEMs involved in major light vehicle export programmes have to remain within the target export price set by their OEM parent companies. The MIDP assists OEMs capitalising on light vehicle export opportunities in African and other markets by offsetting their logistics costs and hence increasing price competitiveness in those countries.

The perceived impact of certain demographical groups (as defined in questions 20 to 29) on the importance of the factors contributing to an increase in South African manufactured light vehicle exports was tested by the following hypothesis.

Hypothesis 7: There is general agreement between the selected demographical groups regarding the importance of factors contributing to an increase in South African manufactured light vehicle exports.

The Kruskal-Wallis one-way analysis of variance by ranks test for questions 21 and 22 was used to test the equality of medians between the groups as defined in the demographical questions obtained for each of the 12 factors contributing to an

increase in their light vehicle exports. There is no statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p > 0.05$) between the groups for the 12 factors. The medians for the factors thus do not differ significantly between the different groups.

The Mann-Whitney U test was used for questions 20 and 23 to 29 to test the equality of medians between the groups as defined in the demographical questions obtained for each of the 12 factors contributing to an increase in their light vehicle exports. There is no statistically significant difference at a significance level of 5% ($\alpha = 0.05$, $p > 0.05$) between the groups for the 12 factors. The medians for the factors thus do not differ significantly between the different groups. The null hypothesis relating to the selected demographical groups regarding the importance of the factors contributing to an increase in South African manufactured light vehicle exports can therefore be accepted.

In conclusion, there is thus general agreement that the role of the MIDP in sourcing decisions is the dominant factor contributing to an increase in South African manufactured light vehicle exports.

Secondary objective 10

To *expand and collate* the existing body of theory and knowledge in respect of the South African-based OEMs' full integration into the global networks of their OEM parent companies.

Knowledge resides in the minds of individuals. Key information has been obtained and captured from the eight OEMs and the 15 key stakeholders that formed part of the empirical survey of this study. This knowledge can now be shared and used by a wide group of people. Such information could assist the South African-based OEMs and the government to be better equipped in terms of their offensive and defensive strategies, as well as when planning for current and future investment and examining export patterns. The new Automotive Production Development Programme (APDP), which will replace the MIDP from 2013 onwards, could, by means of frequent reviews, be amended and improved to support the South African-based OEMs and the domestic automotive industry more effectively. The decision-making power of the OEM parent

companies in making investment and export decisions, as well as their unique approaches to global business, need to be recognised when drawing up automotive policy. The information supplied in this work could suggest some discretionary intervention by government in recognition of unique OEM requirements for seizing global opportunities and minimising risks. However, although government has some discretionary powers, transparency and industry competitiveness remain important issues and should never be compromised.

Secondary objective 11

To *expand and collate* the existing body of theory and knowledge relating to key economic sectors by recognising their synergies with the automotive value chain.

The automotive industry has synergies and strong linkages with various other economic sectors, including plastics, metals, rubber, chemicals, electronics and leather. A factor that was also ranked as important by the respondents in contributing to an increase in light vehicle exports relates to South Africa's comparative advantages, and in particular the country's abundance of raw materials. Raw material inputs to the automotive supply chain increase in line with the growth of the domestic automotive sector. A case in point is the domestic industry's supply of approximately 15% of the global demand for catalytic converters of which a major input is the platinum group metals sourced locally. In the new APDP, government's focus will be on value addition and, hence, to further expand and deepen the industry supply base. Raw materials will thus become an increasingly important focus area for achieving government's objectives for the automotive industry and the country.

Secondary objective 12

To *identify* potential areas for further research based on the quantitative and qualitative research done for this study.

Potential areas for further research based on the quantitative and qualitative research done for this study have been identified and will be elucidated at the end of this chapter.

The recommendations in respect of the study will be discussed next.

8.4 RECOMMENDATIONS IN RESPECT OF THE STUDY

Following the achievement of the stated objectives of the study, the recommendations will now be discussed. These recommendations are the following:

1. Intelligently designed automotive policy support is needed to improve the competitiveness of the South African automotive industry internationally, as without this vehicle manufacturing cannot be sustained in South Africa. It is imperative that government, as policymaker, recognises that a supportive policy regime, conducive to long-term investment in local plants, should be in place. Although it is necessary to take corrective action by reviewing policy regularly, a review should not take longer than six months to complete in order to avoid extended periods of uncertainty.

One of the major challenges facing South African-based OEMs is the issue of international competitiveness. OEM parent companies' decisions are generally informed by cost-parity exercises to determine where to allocate export-oriented, new-generation model investments. South African OEMs thus require a level playing field in order to be able to bid for such investments, as all have sister subsidiaries in closer proximity to the main markets. The OEMs are the key drivers of the automotive supply chain and any investment decisions by parent companies thus impact on sourcing decisions, and consequently on first- and lower-tier suppliers in the automotive supply chain. The automotive sector has a high employment multiplier effect as well as the ability to generate economic activity, hence, should OEMs be unable to secure export-oriented, new-generation model investments the impact on the socio-economic environment in cities and regions where they are located could be severe. The sustainability of the domestic OEMs depends on their ability to enhance the country's position in the global vehicle production rankings, and the vision of the new APDP is to double vehicle production to 1,2 million vehicles by 2020. Long-term automotive policy certainty is generally regarded as imperative for investor confidence as well as the confidence to bid for long-term export contracts. Frequent policy reviews are thus necessary to ensure that the automotive policy regime remains on its intended track. Policy reviews, however, can result in periods of great uncertainty and should be conducted speedily within the stated timeframes as outlined upfront.

2. There should be the development of an Africa export focus.

South Africa lacks the attributes of a big emerging market, is not on the periphery of a major market and is not part of a significant trading bloc as far as the automotive industry is concerned. For the South African automotive industry, the 14-country Southern African Development Community (SADC) is relatively insignificant, although this may well change in future. The South African-based OEMs need to take the lead in developing a focus on Africa in terms of exports, with synergies and challenges being addressed on a collective basis by all role-players. Exports of light vehicles and aftermarket parts to Africa are increasing under the MIDP and, in 2007, the GDP growth rate of 5,3% in the sub-Saharan region was much higher than the world average of 3,2%. A concerted new vehicle export drive in Africa could achieve the objectives of increased vehicle exports into the continent as well as increase demand for aftermarket service parts. The export of used vehicles to Africa could also be pursued as a viable option. South Africa's commercial ports have expanded their facilities to handle automotive exports and imports, enabling the country to act as a trading hub in and out of sub-Saharan Africa. The trade arrangements with the EU and the USA have also enabled the country to position itself as a privileged link between these regions and Africa. In addition, NAAMSA has established an Africa Export Committee to focus on OEM synergies and challenges in respect of exporting to Africa and the researcher, who chaired the first meeting in 2008, is involved in this initiative.

3. Greater synchronisation of the country's automotive development to create a greater awareness, pursue a single purpose and focus on a strategic view to assist the domestic automotive sector.

In order to reach the 1,2 million vehicle production mark by 2020 the OEMs will need to invest in the order of R50 billion. This investment will require confidence from the OEM parent companies. Various government departments, parastatals, the automotive industry and individual companies should increasingly align their strategies in order to become aware of and understand each others' business imperatives. Collaboration and collective action between the automotive industry and national service providers such as Transnet, Spoornet and the South African Port Authority should be directed at advancements in the capacity, reliability and cost-

competitiveness of the country's infrastructural and logistical support facilities. Many decisions relating to regulations or legislation made by various government departments, intentionally or unintentionally impact on industrial policy and the automotive sector. Government should appoint a lead department to ultimately decide on the economic implications of these regulations and legislation. While opportunities are identified by the private sector, obstacles should be overcome by the public sector. NAAMSA has already established a Supply Chain Working Group (of which the researcher is part), including the OEMs, Transnet, NAACAM, SARS and the DTI to encourage collaboration on logistical and related issues contributing to improved international competitiveness.

4. The positive contribution the MIDP makes to generating light vehicle and automotive component business and attracting investments in plants locally should be recognised to make the new APDP work.

The aim of the MIDP's replacement, the APDP, is to double vehicle production in South Africa by 2020 to 1,2 million vehicles, pushing the country's automotive industry up to an anticipated market share of over 1%. The increase in market share would trigger additional interest and investment and generate additional export business. The APDP would incentivise automotive-related production, investment and large-scale vehicle manufacturing, while the investment incentive will also be accessible to more companies than was the case under the MIDP. These measures, and the notion of providing long-term policy certainty, should ensure that the domestic automotive industry remains in consideration for export-oriented, investment decisions.

Given the limitations of the relatively small domestic market in terms of new vehicle sales, export business is crucial in order for the industry not to stagnate or disappear from the global scene. The credibility of and the positive contribution made by the MIDP over the thirteen years up to 2008 to the global automotive environment should be carried over to the APDP from 2013 onwards to ensure the industry's future sustainability. From 1995 to 2008 the positive developments and achievements in the domestic automotive sector have been driven by a supportive automotive policy regime in the form of the MIDP. Given the global reality of vehicle production overcapacity, South Africa must increasingly brand itself as an attractive hub for niche

vehicle platforms as well as for selected high volume light vehicle models. The industry's effectiveness in its response to global pressures will depend on how well the new policy regime in the form of the APDP works. In its reviews of the APDP, it is important for government to recognise South Africa's unique geographic location as well as the significant levels of incentives made available by the national and local governments of other countries. This will ensure that the APDP makes a positive contribution to the future growth and success of the domestic automotive industry.

5. Continuous benchmarking against competitor countries should be undertaken by government or independent organisations to ensure that South Africa is favourably considered as an investment destination, based on a level playing field.

A factor of high importance consistently emphasised in the qualitative responses of the respondents is the lack of sufficient government incentives. Investments in vehicle plants locally and by automotive component suppliers that follow their main customers, the OEMs, are imperative for upgrading, expanding and sustaining future business operations in South Africa. Trade follows investment and, as an export-oriented automotive sector, investments are required in best practice assets and state-of-the-art equipment to accommodate light vehicle export programmes. The scale of investment in the South African automotive industry is still insignificant in a global context. From 2009 onwards, the expanded and improved Automotive Investment Scheme (AIS) should create increased interest in South Africa as an automotive investment destination. The domestic automotive sector, as the country's leading manufacturing sector, can play a significant role in achieving government's economic growth target as well as the wellbeing of the country given adequate government incentives to attract investments. Investment in infrastructure and production capacity, both in light vehicle and automotive component production, has occurred directly as a result of the export opportunities offered by the MIDP. In view of the global financial and economic crisis competition for investments has intensified in the automotive sector. Government thus needs to recognise that its support should match that of other countries, both developed and developing, otherwise investments in plants locally, and subsequently by the automotive component suppliers, will not be realised in South Africa in the foreseeable future.

6. There should be a continuous focus on those free and preferential trade agreements that could benefit the industry's export performance without compromising the integrity of the MIDP.

It is the stated objective of the DTI to increase trade with geographic locations that form part of the developing world, as significant growth is expected in those regions in the medium term. South–south trade has long been promoted as a means of reducing the dependence of developing countries on the markets of developed countries. It would also enhance the diversification of southern exports beyond primary commodities. However, as emphasised by the respondents, the integrity of the MIDP should not be compromised in these trade negotiations. Specifically, the preferential trade negotiations with other developing markets should be debated with caution, as non-tariff barriers, which are generally not the subject of negotiations in trade agreements, are also applied in addition to high tariff barriers. However, for some OEMs capitalising on export opportunities in African and other emerging markets, taxes and tariffs are an important constraint factor impacting on market access to foreign markets for their South African manufactured light vehicles.

It has been emphasised that the existing trade arrangements in the form of the SA–EU free trade agreement and AGOA have enhanced the impact of the MIDP, as they provide duty-free access to these markets. The arrangements also allow those companies exporting to the EU to use European content and those exporting to the USA to use US content as South African or local content in order to qualify for duty-free entry. The elimination of tariffs enhances South Africa's potential to compete against the same products not accorded similar tariff benefits in the relevant countries. The benefits stemming from the trade arrangements also stimulate opportunities for a chain of collaborative arrangements with domestic automotive manufacturing companies from other non-EU and non-US countries to access the regions duty free via South Africa. As far as Mercosur, India and China are concerned, the domestic automotive industry's trade balance is heavily in favour of these countries. Since further opening up the domestic market could potentially jeopardise the viability of the domestic industry, care should be taken in the way these negotiations are approached. A preferred approach could include cooperative arrangements instead of preferential trade arrangements. The aim should be to attract investments by

emerging markets in South Africa in order to beneficiate raw materials in the country instead of exporting commodities to these countries and importing the finished products.

7. Government should reduce the contextual problems relating to exogenous factors impacting on the performance of the MIDP and develop plans to counteract them effectively.

Major global trends, raw material prices, logistics costs, trade arrangements, BBBEE, HIV/Aids, the volatility of the rand and the WTO compliance of the MIDP are all important exogenous factors impacting on the performance of the domestic automotive industry and, hence, the MIDP. Government should develop plans to effectively reduce these contextual problems and their impact on the domestic automotive industry and hence the MIDP's performance. Intervention by government to address import parity pricing in respect of raw materials could result in many benefits for the industry. These benefits would include lower input prices for the domestic automotive sector, increased beneficiation of raw materials in South Africa and increased benefits for related key economic sectors through their synergies with the automotive sector. Other factors of high importance directly affecting the performance of the MIDP are the implications of the cost of doing business in the country. These include the volatility of the rand, electricity prices and supply, and costs associated with BBBEE requirements and HIV/Aids. Should the impact of these exogenous factors be adequately taken into consideration by the authorities, the performance of the MIDP in terms of the domestic automotive industry in the global automotive environment could be improved.

8. Individual OEM considerations, based on their unique approaches, should be considered and accommodated by government via closer links between government and the OEMs.

On the basis of their demographic details, it would appear the OEMs view certain variables impacting on their business operations differently. These differences generally boil down to the differences between the OEMs involved in major light vehicle export programmes and the unique approaches employed by the OEMs

capitalising on niche export opportunities. For the former, the OEM parent companies set the export price and exports are focused on a few concentrated areas where duty-free trade arrangements apply. Domestic market factors are a main focus for lowering costs in order to remain within the light vehicle export target price range and to be considered as viable options for export-oriented, new generation model investments. The latter OEMs focus on export opportunities in a number of African and other markets where trade arrangements do not apply. Foreign market factors, such as demand, competition, taxes and tariffs and market accessibility are important considerations when accessing export opportunities. Government's approach and support in attracting investments should take cognisance of the unique requirements of European, Japanese and US OEM subsidiaries in order to increase the effectiveness of its support.

8.5 POTENTIAL AREAS OF FURTHER RESEARCH

Based on the quantitative and qualitative research carried out for this study the following potential areas for further research have been identified:

Potential research area 1

The Productive Asset Allowance (PAA) was implemented as part of the 1999 MIDP Review with the main objective of model rationalisation. The incentive was thus restricted to investments by OEMs and dedicated automotive component suppliers that were targeted to achieve model rationalisation. This has to a large extent been achieved, as the number of model platforms has been reduced. The Automotive Investment Scheme (AIS), to be implemented in July 2009, will be accessible to the broader spectrum of automotive component suppliers as well. It will be available over three years compared to the five years of the PAA and will include an additional 10% discretionary allowance. In respect of the improved and expanded AIS, potential research areas could include:

- An analysis of the impact of an expanded, WTO-compliant AIS on investment decisions for future new generation models by the OEMs
- An analysis of the impact of an expanded WTO-compliant AIS on investment in the automotive component sector and a deepening of the domestic supply base

- An analysis of the impact of an expanded WTO-compliant AIS on technology transfer and the upgrading of skills in the automotive sector

Potential research area 2

Light vehicle exports to Africa increased from 38 767 units in 2007 to 72 707 units in 2008. The focus on African markets, in capitalising on new light vehicle export opportunities and aftermarket replacement parts for these vehicles, continued to increase up to 2008. In addition, the potential for used light vehicle export opportunities also exists. The integration of SADC into a free trade area and the move to a customs union in the future could provide additional opportunities. However, competition is experienced from the importation of cheap used vehicles to Africa via Durban and other ports, as well as new vehicle imports from Asian countries in particular. Competition is also experienced from grey imports, which consist of new vehicles exported to countries by firms other than the original OEMs without the warranties. Potential research in this regard could include:

- The impact of the SADC free trade area integration on South African manufactured light vehicle and aftermarket replacement part exports to the region, as well as the potential for used vehicle exports from South Africa.
- The impact of a combined focus by the South Africa-based OEMs on the synergies and challenges of exporting light vehicles to Africa.

Potential research area 3

The MIDP's contribution to the South African automotive industry has been emphasised. This industry is ideal for stimulating diversified economic development and also multiplying employment in related sectors. Raw materials are important inputs to the automotive value chain and their use increases along with the growth and development of the domestic automotive industry. The focus of the new APDP will be on production in contrast to the export orientation of the MIDP. The benefits will thus focus on the value-adding contribution to the country. With regard to the synergies of the automotive sector, which relate to a large number of related upstream sectors supplying raw materials such as metals, plastics, chemicals and rubber, among others, a potential research area could be:

- An analysis of the impact of the current MIDP on related economic sectors in South Africa through their synergies with the automotive sector
- An analysis of the potential benefit of the APDP for related economic sectors through their synergies with the automotive sector

Potential research area 4

The organised and collaborative fashion in which the automotive sector operates in the country is regarded as a benchmark by other sectors. The Motor Industry Development Council (MIDC) is the government-industry-labour automotive forum that advises the Minister of Trade and Industry on automotive policy and related issues. The industry associations, in representing their constituents, inform government policy, trade agreement negotiations and other automotive-related areas via the MIDC as well as directly with government. Since the industry associations, and in particular NAAMSA and NAACAM, have been instrumental in informing the automotive policy regime in the country up to and since the introduction of the MIDP, a potential research area could be:

- An analysis of the role and relevance of industry associations in informing and influencing automotive industry policy

8.6 CONCLUSIONS TO THE STUDY

Since the MIDP's introduction in September 1995, the South African-based OEMs have responded positively to this automotive policy regime. Between 1995 and 2008, exports of CBUs grew by nearly 1 700% in unit terms and 3 066% in nominal value terms. These exports have been facilitated by major investments in best practice assets and state-of-the-art equipment, model rationalisation and overall production and operational efficiencies. During this time the South African automotive industry has become fully integrated into a dynamic global automotive environment.

In a South African context it is evident that the operations of automotive firms are influenced by government policy. Theoretical information and value-adding research is, therefore, imperative in order for government, industry and labour to collaborate constructively in capitalising on export opportunities and minimising risks. An essential principle for the South African government, in light of its economic goals, is the sustainability principle. Government has stated in its Accelerated and Shared Growth

Initiative for South Africa (AsgiSA) objectives that the economic growth rate must be at least 6% in order to have the desired impact of halving poverty and unemployment by 2014. The achievement of government's objectives will largely depend on the ongoing successes of priority sectors, such as the domestic automotive sector, provided there is a legislative and regulatory environment conducive to effective development. Only when these prerogatives receive their rightful place in government policy will there be a chance for South Africa to prosper.

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Appendix A: Covering letter

To whom it may concern

TITLE OF STUDY: THE IMPACT OF THE MOTOR INDUSTRY DEVELOPMENT PROGRAMME (MIDP) ON THE EXPORT STRATEGIES OF THE SOUTH AFRICAN LIGHT MOTOR VEHICLE MANUFACTURERS (1995–2008).

Mr Norman Lamprecht, a DCom (Business Management) student at the University of South Africa (Unisa), is currently conducting research into international marketing, with special reference to the impact of the MIDP on the export strategies of the South African light motor vehicle manufacturers (1995–2008).

The South African automotive industry has gone from strength to strength since the implementation of the MIDP in 1995. In this highly demanding industry, your inputs would contribute greatly to improving both the current and new export strategy approaches of multinational motor vehicle manufacturers to utilise South Africa as a manufacturing base for exports to world markets. Your views on the impact of the MIDP, directly or indirectly, on the export strategies of the South African light motor vehicle manufacturers would therefore provide valuable insight.

All the information in the attached questionnaire will be handled with the strictest confidence and will only be published in aggregate format. Your participation, valued input and time in completing the questionnaire would be highly appreciated. Feedback on this research study, after its completion, will be made available on request.

Yours faithfully

Prof S Rudansky-Kloppers (rudans@unisa.ac.za)
Prof JW Strydom (strydjw@unisa.ac.za)
Department of Business Management, Unisa

Appendix B: Empirical survey

QUESTIONNAIRE

A: GENERAL

Questions 1 to 4 require you to make a tick in the relevant square(s).

(References to light vehicles in the questionnaire include passenger cars and light commercial vehicles.)

(Please do not write in the grey squares.

1. Please indicate whether you represent an OEM or another organisation (association, council, government, academic or other automotive industry-related organisation).

OEM			Other		

Please note that OEMs should complete Sections A, B, C and D while representatives from other organisations should only complete Sections A, B and C.

2. Do you think the automotive industry in South Africa is capable of coping with global competition without MIDP support?

YES			NO		

3. What do you consider to be the main focus of South African light vehicle manufacturers in their vehicle production?

Domestic market			Exports		

4. What do you think is more important for South African light vehicle manufacturers in terms of their light vehicle exports?

A few concentrated export markets			Multiple export markets		

B: MARKETING

Please indicate your opinion by rating questions 5 to 10 according to the stated scales. (Should you rate any other factor not included, please specify the factor and rate it in the table.)

Please indicate how you would rate the following:

5. The value of the MIDP in the global automotive environment for South African light vehicle manufacturers:

	No value	Low value	Medium value	High value		
To generate light vehicle exports	1	2	3	4		
To generate automotive component exports	1	2	3	4		
To attract investments in vehicle plants locally	1	2	3	4		
Other (please specify)	1	2	3	4		

6. The dependence on future government support in the form of the MIDP or new support programme for the following:

	No depen-dence	Low depen-dence	Medium depen-dence	High depen-dence		
South African light vehicle manufacturers	1	2	3	4		
South African automotive industry in general	1	2	3	4		

7. The impact of duty-free access via the SA-EU free trade agreement into the European Union enjoyed by South Africa in generating export business for the following:

	No impact	Low impact	Medium impact	High impact		
South African light vehicle manufacturers	1	2	3	4		

8. The impact of duty-free access via the African Growth and Opportunity Act (AGOA) into the USA enjoyed by South Africa in generating export business for the following:

	No impact	Low impact	Medium impact	High impact		
South African light vehicle manufacturers	1	2	3	4		

9. How important the South African light vehicle manufacturers' image is for South African manufactured light vehicle exports to penetrate new markets in terms of the following:

	No importance	Low importance	Medium importance	High importance		
Reliability of supply	1	2	3	4		
Quality	1	2	3	4		
Cost competitiveness	1	2	3	4		

10. The level of influence of the South African light vehicle subsidiary on decision-making power in determining new export destinations for South African manufactured light vehicles?

	No influence	Low influence	Medium influence	High influence		
Decision-making power of South African light vehicle manufacturers	1	2	3	4		

Please indicate your opinion by rating questions 11 to 14 according to the stated scales. (For example, most important variable 90, second most important variable 85, third most important variable 77, and so on.) (Should you rate any other factor not included in the table as having an impact, specify the factor and rate it in the table. Please specify the rating in the column provided.)

Question 11 requires you to rate the following factors in the table out of 100.

11. Please indicate how important you would rate the following six factors out of 100 as constraints impacting on market access into foreign markets for South African manufactured light vehicles.

Factors of constraints

Tariff barriers		
Non-tariff barriers		
International standards		
Foreign government regulations		
Currency movements		
Logistics costs		
Other (please specify)		

C: STRATEGY

Question 12 requires you to rate the following determinants in the table out of 100.

12. Please indicate how important you would rate the following 11 determinants of foreign-market pricing out of 100 in setting the export price for South African manufactured light vehicles.

Determinants of foreign-market pricing

Domestic company goals (market share/profits/competition)		
Costs (manufacturing/marketing/transportation)		
Demand (elasticity/product cycle stage)		
Competition (goals/seeking market share/segment strategy)		
Government (price controls/government as buyer)		
Taxes and tariffs (duties/regional integration/incentives)		
Inflation (inflation rate/pricing in hard currencies)		
Product line (extent of product line/volume discounts)		
Distribution channels (differentiated pricing/ value-added services)		
Marketing mix (additional costs for local advertising/ service/ training/ commission structure)		
OEM parent company as the buyer		
Other (please specify)		

Question 13 requires you to rate the following criteria in the table out of 100.

13. Please indicate how important you would rate the following three criteria out of 100 in selecting export destinations for South African manufactured light vehicles.

Selection of export destinations

Market accessibility to that market		
Profitability of that market		
Market size (potential buyers)		
Other (please specify)		

Question 14 requires you to rate the following factors in the table out of 100.

14. Please indicate how important you would rate the following 12 factors out of 100 in contributing to an increase in South African light vehicle exports.

Factors contributing to an increase in light vehicle exports

Cost of capital		
Wage rates		
Productivity improvements		
Exchange rates		
Role of MIDP in sourcing decisions		
Trade agreements		
SA's comparative advantages (raw material availability, emerging market cost advantages, among other things)		
SA's competitive advantages (flexibility, ability to produce short production runs, among other things)		
Automotive exhibitions		
Specialisation in the product line		
Scale of production		
Product quality		
Other (please specify)		

Questions 15 to 16 require you to express your views and opinions.

15. What do you regard as the main determinants impacting on the change on the export strategies of the South African light vehicle manufacturers since 1995? Please elaborate/explain.

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16. Please indicate your views on the impact of the MIDP on the export strategies of the South African light vehicle manufacturers.

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D. DEMOGRAPHIC INFORMATION

Questions 17 to 29 require local company-specific information. ***(Not applicable to associations, councils, government, academics or other automotive industry-related organisations.) (Please provide the most recent information available.)***

17. Please provide information on the ownership of the company.

% Foreign owned			

18. Please provide information on total employment in the company.

Total employment (total including monthly, hourly, contract workers and temporary part-time workers)			

19. Please indicate the company's main automotive component exports (only products manufactured in-house).

Automotive components (volume products)			

20. What is the company's export turnover as a percentage of the company's total turnover?

Exports as % of turnover	%		

21. What is the company's vehicle production as a percentage of the parent company's global group vehicle production?

SA production as % of global production	%		

22. Please indicate the company's number of country export destinations for light vehicles.

Number of country export destinations			

23. Who determines the export destinations for the company's South African manufactured light vehicle exports?

South African OEM			Parent company		

24. Who sets the export price for the company's South African manufactured light vehicle exports?

South African OEM			Parent company		

25. In which currency is the export price for the company's South African manufactured light vehicle exports set?

South African rand			A foreign currency		

26. On which one of the following two price systems is the export price of the company's South African manufactured light vehicle exports based?

Standard world price			Market-differentiated price		

27. Which of the following intermediaries does the company use to sell in foreign markets?

Independent intermediaries		
Distribution agents		
Sister companies		
Other (please specify)		

28. Does the company export to unprofitable markets?

YES			NO		

If "yes", please explain why?

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29. Does the company customise South African manufactured light vehicles for different export markets?

YES			NO		

E. CONTACT DETAILS

30. Contact details

Name:	
Position:	
Company/organisation:	
Tel no.:	
E-mail:	

Thank you for your time and contribution in participating in this research study!

Please close and save this survey and forward the e-mail to norman@naamsa.co.za.

Alternatively, fax the completed survey back to fax no 012 326 3232.

Appendix C: List of respondents to the empirical survey

Fifteen stakeholders

1. Mr Nico Vermeulen, Director, National Association of Automobile Manufacturers of South Africa (NAAMSA) (Business)
2. Mr Stewart Jennings, President, National Association of Automotive Component and Allied Manufacturers (NAACAM) (Business)
3. Mr Rob Boyd, Executive Director, Catalytic Converter Interest Group (CCIG) (Business)
4. Dr Etienne Human, Chief Executive Officer, South African Tyre Manufacturers' Association (SATMC) (Business)
5. Mr Roger Pitot, Chairperson, Automotive Industry Export Council (AIEC) and Executive Director, NAACAM (Business)
6. Mr Jeff Osborne, Chief Executive Officer, Retail Motor Industry Organisation (RMI) (Business)
7. Mr Dawie Bezuidenhout, Coordinator, Joint Action Group on Automotive Leather Interiors (JALI) (Business)
8. Prof Jasper Steyn, Manager: Government Programmes, Automotive Industry Development Centre (AIDC) (Business)
9. Dr Justin Barnes, Chairperson, Benchmarking and Manufacturing Analysts SA (Pty) Ltd. Consultant to the Department of Trade and Industry for the 1999, 2002 and 2005 MIDP Reviews. (Business)
10. Mr Tony Twine, Director and Senior Economist, Econometrix (Pty) Ltd (Business)
11. Mr Herman Ntatleng, Automotive Sector Organiser, National Union of Metalworkers of South Africa (NUMSA) (Labour)
12. Prof Anthony Black, Director, School of Economics, University of Cape Town and consultant to the Department of Trade and Industry for the 1999, 2002 and 2005 MIDP Reviews (Government)
13. Mr Mkhululi Mlota, Director: Automotive, Enterprise and Industry Development Division (EIDD), Department of Trade and Industry and Chairperson: Motor Industry Development Council (MIDC) (Government)

14. Mr Pieter Goosen, Deputy Director, International Trade Administration Commission (ITAC), division of the Department of Trade and Industry (Government)
15. Mr Werner Pretorius, Head Automotive: Trade Administration, South African Revenue Services (SARS) (Government)

Eight motor vehicle manufacturers (OEMs)

1. BMW South Africa (Pty) Ltd
2. Fiat Auto South Africa (Pty) Ltd
3. Ford Motor Company of Southern Africa (Pty) Ltd
4. General Motors South Africa (Pty) Ltd
5. Mercedes-Benz South Africa (Pty) Ltd
6. Nissan South Africa (Pty) Ltd
7. Toyota South Africa Motors (Pty) Ltd
8. Volkswagen of South Africa (Pty) Ltd

Appendix D: Detailed views in respect of the empirical survey - Question 15 – the main determinants impacting on the change on the export strategies of the South African light vehicle manufacturers since 1995

OEMs

The views by the eight OEMs are as follows:

- The MIDP is the key determinant in the industry's export strategy. Without the MIDP an export strategy would not exist.
- The desperate need to generate exports to off-set import duties. Non profitable production lines are stopped to increase models in order to complement the model mix in the domestic market and Import Rebate Credit Certificates (IRCCs) are required to rebate the import duties.
- Incentives and trade agreements lead to profitable business in getting up plants at high levels of capital expenditure.
- The change in the export strategies was specifically brought about by the MIDP. The import/export complementation scheme promotes vehicle and component exports. The fact that credits earned on MCV/HCV component and MCV/HCV vehicle exports can be used in the light vehicle MIDP. The productive asset allowance (PAA) promotes investment in manufacturing. The duty-free allowance (DFA) makes provision for the duty free import of components that cannot be made economically locally for financial and/or technological reasons.
- The MIDP directly reward exports and this almost forces all OEMs to source global supply opportunities to maximise their duty savings and supplement their product line-up with additional CBU variety. The establishment of free trade agreements in recent years made South Africa an export destination of choice, especially to the EU. These two factors successfully contributed to increased exports of vehicles and components. From a manufacturing point of view it is beneficial to obtain economies of scale in the production processes. Under the current MIDP all OEMs rationalised their plants aggressively and this resulted in a more focused approach towards more volumes on fewer platforms. Economies of scale will not only allow for more efficient cost structures but will also ensure that South African OEMs can supply higher volume export demand.

- The MIDP rebates enable OEMs to off-set logistical cost disadvantages, improving South Africa's ability to compete globally, resulting in increased production economies of scale, affecting vehicle affordability positively, increased investment in technology and infrastructure, creating better quality and increased improved skills of employees.
- Export support through the MIDP, the SA-EU free trade agreement, rationalisation of platforms, improvement in quality of local production, control over local costs and reliability of production and supply.
- The introduction of the MIDP and the relaxation of import restrictions into foreign countries. Exports were initially restricted to sub-Saharan Africa.

Stakeholders

The views by the 15 stakeholders are as follows:

- The MIDP has played a key role together with the fact that the firms have all come under foreign ownership, which has made it potentially attractive for the parent company to source product from South Africa. South Africa has now established itself as a reliable, high quality producer so that hurdle no longer exists or only to a small degree.
- Constant productivity and supply chain improvements required to off-set price increases.
- The MIDP has been the central driver of exporting since 1995, although AGOA and the SA-EU free trade agreement have also played critical roles – along with strong developed economy market performance in the early 2000s. More recently, domestic market contraction in a number of developed economies and competition out of the East has fundamentally changed the global position of South African exports. Lower price points have to be achieved, and without any negative impact on quality, reliability and lead times, among others. The MIDP has remained successful in supporting exports through this difficult period, but supply side issues are likely to play an undermining role in the local industry unless they are resolved over the next few years.
- The MIDP, a global perspective/outlook, economic stability, a growing reputation of being a reliable supplier of goods at global quality standards.

- The MIDP structure and the export incentives have driven OEM strategies since 1995. This has enabled OEMs to export some models and import others duty-free. In addition, the rationalisation of models has enabled OEMs to focus on production of one or two high-volume model platforms which has resulted in productivity/cost improvements. Undoubtedly the democratic changes of 1994 also has helped to shape export strategies as South Africa has become an acceptable source of product for every country in the world, and this would not have been possible prior to 1994.
- The MIDP's reward for export performance via IRCCs was the dominant factor. It allowed import of variants and models ranges needed to compete in the market without the penalty of high duty costs. OEMs quickly found the lucrative opportunity of platinum content of catalytic converters earning IRCCs, leading to rapid deployment of production in that domain. Other component exports are relatively minor in comparison. Vehicle exports are increasing rapidly, apparently more due to opportunities under the SA-EU free trade agreement and to some extent under AGOA. The PAA qualifying requirement of rationalisation was a secondary and delayed stimulus to rationalise, which helped the export objective through the economies of scale of larger volumes of specific models.
- By far the most important determinant has been the MIDP structure and the export/import complementation. This has enabled OEMs to export some models and import others duty-free. Secondary has been the rationalisation of models which has enabled OEMs to focus on production of one or two high-volume model platforms.
- Mainly the export incentive received through the MIDP, together with free trade agreements such as the SA-EU agreement and the rule of origin under the SA-EU agreement where components imported from the EU to South Africa count as local. The export route to earn credits for MIDP purposes was a much easier route than to source more components produced in South Africa. This was applicable especially to high value products such as catalytic converters.
- The parent company had capacity problems which lead to the exports of vehicles from South Africa by one OEM.

- Primarily decisions at global and regional OEM head office levels, coupled with the combined benefits to their South African subsidiaries in terms of the MIDP provisions. A significant degree of global political correctness in giving support to the newly democratised South African environment.
- The MIDP and a weak currency were central. South Africa's tax dispensation also allows for more profits to be realised.
- The ability to attract more productive investment into the industry. The ability to sustain employment in the industry. Accessibility of other role-players to the incentives.
- The main determinant impacting on the change in the export strategies would be the MIDP itself, perhaps further influenced by the weakening rand plus export opportunities around the world. Added to the above would unquestionably be the transfer of power in the South African political environment and the stable political conditions that prevailed. This would have influenced overseas investors and manufacturers in the automotive industry.
- With South Africa becoming part of international trade after 1994 and the end of international boycotts, vehicle and component manufacturing had to rationalise dramatically to become and remain competitive. The MIDP, facilitating import replacement of higher cost items and increasing output on lower cost products, made this process possible. This assisted in larger run units per item improving quality dramatically and provided more volumes available for export.
- The key determinants are multi-faceted. The automotive policy regime in South Africa in the form of the MIDP. Sourcing and allocation decision of multinational automotive corporations. Ability and opportunities to supply niche product requirements. The opening of new markets and opportunities as a result of free and preferential trade agreements.

Appendix E: Detailed views in respect of the empirical survey - Question 16 – views on the impact of the MIDP on the export strategies of the South African light vehicle manufacturers

OEMs

The views by the eight OEMs are as follows:

- There would not have been any significant growth in exports from South Africa without MIDP support. The system whereby OEMs can earn import rebate credit certificates by means of exporting enabled OEMs to import CBUs without paying duties, thereby enabling OEMs to fill gaps in niche product lines by importing CBUs. This in turn made it possible for OEMs to discontinue the local production of those niche market products and improve productivity through rationalisation of the production platform.
- Subsidisation of exports had created a mechanism to price exports at a competitive level. The rationalisation of models has improved quality standards and profitability.
- The MIDP had a very positive impact and assisted the OEMs to become increasingly internationally competitive. Logistical costs will always be a huge competitive disadvantage.
- South African OEMs can now compete in the global manufacturing environment through expansion and incentives provided to them under the MIDP and the free trade agreements. Each OEM competes on a global basis with affiliates in other countries to ensure export contracts. Without the MIDP or a similar incentive platform South Africa will not be considered as a supply source by their parent companies if there are countries with more aggressive incentive opportunities closer to Europe and Asia. The MIDP is not only an important factor in export strategies but in several cases the overwhelming deciding factor when competing for international supply programs.
- The change in the export strategies was specifically brought about by the MIDP incentive scheme. The import/export complementation scheme promotes vehicle and component exports. The fact that credits earned on MCV/HCV component and MCV/HCV vehicle exports can be used in the light vehicle MIDP. The PAA promotes investment in manufacturing. The

DFA makes provision for the duty free import of components that can not be made economically locally for financial and/or technological reasons.

- Without the MIDP the current model would not have been produced in South Africa and the plant in South Africa would not exist. The parent company would not have seen a cost advantage in having a plant in South Africa. It would be a very quick decision for the parent company to make an investment decision in another country.
- Believe that without the MIDP or similar incentives there would not be a benefit for OEMs to set up plants in South Africa for exports.
- The MIDP is a major factor in the export decision making policies.

Stakeholders

The views by the 15 stakeholders are as follows:

- The MIDP was a critical catalyst in the restructuring and refocusing of the operations of South African light vehicle producers. The substantial reduction in levels of protection forced OEMs to review their respective strategies, whilst the import/export facilitation element of the MIDP encouraged OEMs to rationalise their operations by reducing the number of models produced and to concentrate instead on the production of one or two model platforms with higher scale benefits.
- The MIDP encouraged manufacturers to secure higher volume production levels, to improve manufacturing efficiencies, to invest in state-of-the-art technology and to reduce complexity for the domestic supplier base. Overall, the impact of the MIDP has been positive with huge diversification into export markets.
- The MIDP did assist in increasing local component manufacturing as it formed the basis of the import/export exchange programme encouraging local content of vehicles. With the local component design and manufacturing not being very sophisticated, it forced local programmes to concentrate on more basic vehicles suitable for Africa and similar terrain countries such as Australia. South Africa had a very good managerial base that over the past 10 years also encouraged the high end of the vehicle types to be assembled in South Africa for the local market for increase into

the export market. South Africa did achieve very high quality local component and assembly status in the world.

- The MIDP has been a tremendous success story from an economic perspective, resulting in a significant contribution to the GDP. The programme has also created employment growth and skills transfer. It has also provided the consumer with enhanced choice and affordability. Local component manufacturers have grown their capacity not only to export, but are better positioned to supply to local OEMs at competitive prices. General technical advancement within the industry has also resulted.
- The incentives are able to encourage OEMs to stay and do business in South Africa, assist OEMs and component manufacturers to access international markets and assist OEMs to justify their business case in their mother plants to put more investment in South Africa. Participation of the Dti in the WTO gives OEMs a platform to penetrate international markets.
- Vehicles sold for export purposes have been sold at a reduced price due to the MIDP benefits in order to penetrate markets which have been more favourable to other emerging market exports.
- The major weight of the decision-making process resides not in the decision making capacity of the South African OEM subsidiaries. The MIDP could not have outweighed any economic or political-economic desires on the part of main or regional boards of the large vehicle supplier organisations. However, it may have helped to tilt the balance of favour to the advantage of the South African based OEMs once a general decision and/or positive attitude towards them had already been fundamentally established at high global decision making levels.
- The MIDP assisted South African light vehicle manufacturers in negotiating contracts with the mother companies abroad and therefore assisted South African OEMs to be more internationally competitive.
- MIDP rules made it easy to rebate the duties on imported components and built-up vehicles, by exporting vehicles and components.
- The MIDP is critical in the export strategies of South African light vehicle manufacturers as it is critical in local light vehicle production. Without the MIDP and its related import duty regime on light vehicles, there would not

be a sufficient business case for local light vehicle manufactures and consequently for light vehicle export.

- The MIDP has provided the import/export facilitation to enable OEMs to export vehicles and components and use the credits generated to import vehicles and CKD components duty-free. Therefore the more the exports the more the ability to import. Most OEMs have therefore focused on exporting sufficiently to enable them to balance their duty account based on their local content and required vehicle imports to service the local market. Regrettably, this has also enabled many OEMs to reduce their local content levels compared to prior-1995, without any duty penalty, and the SA-EU agreement has exacerbated this by allowing companies exporting to the EU to use European content as local to qualify for duty-free entry into that region. Therefore the MIDP has enabled the production of high-volume vehicles for export with low levels of local content, thus giving OEMs more flexibility.
- Absolutely critical to off-set geographic dislocation cost disadvantages and match global incentive levels.
- The MIDP has been absolutely central to the establishment of export platforms in South Africa. Whilst it has arguably over-incentivised exports and hence made it easy to import, it has realigned the position of the South African automotive industry – from a domestically focused to globally oriented value chain. The ease with which OEMs have secured IRCCs through catalytic converter exports has however been a major weakness of the MIDP, with many OEMs failing to deepen their CBU export programmes.
- The MIDP has played a key role in encouraging global firms to integrate South Africa into their global networks. The level of assistance has been too high historically and it has distorted decision making. While it has pushed firms in the right direction there is a risk that firms could rely on the MIDP and not do what is necessary to become really competitive.
- All over the world there is not only an increase in price and productivity competition in this market as new manufacturing and supply centres develop, but also increased competition in the way governments support their automotive and component manufacturing industries through cutting

edge manufacturing and market development support. This has to be factored into not only the South African government's industrial export strategy and action plans but also into those of the South African automotive supplier centres. It thus not only rests on the South African government but also on the South African automotive CEOs to constantly evaluate and adjusts MIDP support mechanisms to ensure that it remains cutting edge all the time throughout the supporting supply chain. The South African automotive suppliers (both OEMs and component exporters to parent OEMs) have a strong logistical disadvantage (that varies from 10 to 16% depending on the product) in supplying our main European markets vis-à-vis supply centres closer by. All in all, the MIDP is thus an essential key programme in leveraging the South African automotive light vehicle (and first-tier component supplier) exports towards competitiveness and economies of scale and as such forms a key provision in the sector's export strategies and makes a visible and positive impact in terms of export figures for this sector.