A STUDY OF THE AWARENESS AND PRACTICE OF COMPETITIVE INTELLIGENCE IN SMES IN THE CITY OF TSHWANE METROPOLITAN MUNICIPALITY

by

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Declaration of own work

I declare that **A study of the awareness and practice of competitive intelligence in SMEs in the City of Tshwane Metropolitan Municipality** is my own work and that all the sources that I have used and quoted have been indicated and acknowledged by means of complete references.

Tshilidzi Eric Nenzhelele Date

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Abstract

While it is acknowledged that CI is important to SMEs, it is not being practiced optimally in SMEs. The study of CI in SMEs has not been as well documented as it has been in larger enterprises. Moreover, there is no evidence of CI awareness and practices in SMEs. The purposes of this study are to, establish the level and extent of awareness and practices of CI in SMEs, identify the challenges SMEs face in implementing CI, and equip SMEs for decision making in order to help SMEs to gain competitive advantage in a turbulent global market and to enhance their economic growth.

This research indicates that SMEs are aware of CI. It also indicates that while SMEs practice CI, they do so informally. It also shows that CI provides competitive advantage to SMEs.

Key terms: competitive intelligence, strategic management, small and medium enterprises, strategic decision making, competitive advantage.

Glossary

B2B	business to business
B2C	business to consumer
B2G	business to government
BITTSC	Business, Investment, Trade and Tourism Support Centre
C2C	consumer to consumer
CBD	central business district
CC	close corporation
CI	competitive intelligence
CIS	competitive intelligence system
CSIR	Council for Scientific and Industrial Research
CTI	competitive technology intelligence
CTMM	City of Tshwane Metropolitan Municipality
EDI	electronic data interchange
G2B	government to business
GDP	gross domestic product
HSRC	Human Sciences Research Council
IC	intellectual capital
JSE	Johannesburg Securities Exchange
KINs	key intelligence needs
KITs	key intelligence topics
MRC	Medical Research Council
PESTE	political-legal, economic, socio-cultural, technological and ecological
SCIP	Society for CI Professionals
SEDA	Small Enterprise Development Agency
SME	small and medium-sized enterprise
SMME	small, micro and medium enterprise
SWOT	strengths, weaknesses, opportunities and threats
Unisa	University of South Africa

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CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

Enterprises are faced with an increasingly competitive environment in which it is difficult to maintain a sustained competitive advantage (Buchda, 2007; Rittenburg, Valentine & Faircloth 2007; Antia & Hesford, 2007; Bose, 2008; Zha & Chen, 2009; Shih, Liu & Hsu, 2010; Ling, Li, Low and Ofori, 2011; Sarwade and Rasika, 2012). Guarda, Augusto and Silva (2012) state that competitive advantage can be understood as seeking unique opportunities that will give the enterprise a strong competitive position. According to Shih et al (2010) and Qiu (2008), in order to sustain a competitive position, managers should prepare to respond promptly to changes in customer preferences, competitor strategies and technological advancements.

For these reasons, many enterprises – whether public or private, and small or large – initiate their own competitive intelligence (CI) services to advice their decision makers (Taleghani, Rad & Rahmati, 2012; Vuori & Okkonen, 2012; Bourret, 2012). Breese-Vitelli (2011) states thatwith the growth of the global economy, organisations (large and small) are increasingly recognising that CI is essential to compete in an industry. According to Deng and Luo (2010), CI plays an increasingly important role in the strategic management and decision-making of an enterprise. Peltoniemi and Vuori (2008) point out that through CI, enterprises aim to acquire relevant and accurate knowledge about the actions and plans of competitors on which managers can base their decisions.

CI is not an activity that is limited to a few countries or enterprises in certain industries; it is a world-wide phenomenon (Muller, 2007a). Muller (2007b) indicates that in order for enterprises to make optimal use of CI, there should be appropriate enterprise awareness of CI. She also says that without proper awareness and attitudes that favour both intelligence and information sharing, it is difficult to develop intelligence within an enterprise. Furthermore, she points out that CI is still in a growing phase in South Africa due to (1) a lack of awareness of its benefits and (2) inadequate formal training programmes at a higher education level (Muller, 2007a). While CI is mostly practiced by larger enterprises in industries such as banking, telecommunications and retail, research reveals that it is not well practiced by small enterprises (Murphy, 2006). However, it can be practiced successfully by small and medium-sized enterprises (SMEs) (Murphy, 2006). Wright (2005) states that it is

not enough for enterprises to have CI; they need to implement it in the decision-making process.

1.2 COMPETITIVE INTELLIGENCE

To better understand CI, one has to know how it is formulated (Bourret, 2012). Data leads to information, which leads to knowledge, which in turn leads to wisdom and intelligence (Bernstein, 2011). According to Stair and Reynolds (2006), data consists of raw facts such as an employee's name and the number of hours he or she has worked in a week, inventory part numbers or sales orders. Information is a collection of facts organised in such a way that they have additional value beyond the value of the facts themselves (Stair & Reynolds, 2006). Stair and Reynolds (2006) define knowledge as an awareness and understanding of a set of information and ways in which information can be made useful to support a specific task or reach a decision. According to Taleghani et al (2012), knowledge exists in many different forms in organisations. Some of these are tangible, while others are more subtle and intangible by nature. Wisdom is the human ability to learn from experience and adapt to changing conditions (Post & Anderson, 2003). Intelligence is a comprehensive ability to use one's existing knowledge or experience to adapt new situations or solve new problems (Shi, 2011).

CI, which is the research construct of this research, requires proper definition. There are numerous definitions for CI in contemporary practice and scholarship, and no single definition is likely to be precise and universally accepted (Fleisher & Wright 2009; Brody, 2008). Brody (2008) argues that because CI is a process that is set in situations that are dynamic and in which the players are moving forward in a constantly changing business environment, the variety of definitions may be a reflection of the process of change. Brody's definition is adopted for the purpose of this study because it is broader and simple. Brody (2008) defines CI as "the process by which enterprises gather actionable information about competitors and the competitive environment and, ideally, apply it to their planning processes and decision-making in order to improve their enterprise's performance". Thus, the first research variables in this research are strategic management and planning, and decision making.

CI is an amalgam of disciplines. It evolved from economics, marketing, military theory, information science and strategic management (Juhari & Stephens, 2006). According to Muller (2005a), CI took root in South Africa in the mid-1990s and early 2000s. South African

enterprises have been too inward-looking, which has made them vulnerable to unforeseen threats (Adidam, Gajre & Kejriwal, 2009). While CI is a relatively new management tool, it is evolving in complexity and importance to maintain pace with rapid business development (Heppes & Du Toit, 2009). Since the end of the Cold War, CI – once widely used in the military environment – has rapidly infiltrated into business competition (Deng & Luo, 2010).

Due to intense global competition, enterprises are always looking for ways to gain competitive advantage over their competitors (Hughes, 2005; Muller, 2005b). According to Heppes and Du Toit (2009), an enterprise has a competitive advantage whenever it has an edge over its rivals in attracting customers and defending itself against the competitive forces found in its external environment. Enterprises that are facing greater competition devote greater enterprise support to CI in searching for new ways of creating and sustaining a competitive advantage (Hesford, 2008; Heppes & Du Toit, 2009; Adidam et al, 2009). CI enhances an enterprise's competitive advantage through a better understanding of the enterprise's external (competitive) environment, leading to improved strategic management and resultant competitive advantage (Muller, 2007a; Shih et al, 2008; Trim & Lee, 2007; Heppes & Du Toit, 2009).

Pietersen (2006) indicates that CI captures the knowledge resources required by management. Moreover, the purpose of CI in the enterprise is to support (and lead to) management decisions and actions (Dishman & Calof, 2008). Thus, CI influences decision making and decision making is a possible research variable. Furthermore, CI includes monitoring competitors, identifying opportunities and threats in the industry, leading enterprises to simulate their strength and weaknesses, building scenarios and planning counter-attacks (Trim & Lee, 2008). Efficient CI activities can help an enterprise to understand its strengths and weaknesses in relation to its competitors. In this way, an enterprise can anticipate, with some accuracy, the future moves of its competitors (Peltoniemi & Vuori, 2008). By analysing the capabilities, vulnerabilities, intentions and moves of competitors, CI allows an enterprise to anticipate market developments proactively – rather than merely react to them. This in turn enables the enterprise to remain competitive by improving its strategic decisions and performing better than its competitors (Bose, 2008; Shih, Liu & Hsu, 2008; Johns & Van Doren, 2010; Hesford, 2008). Thus, CI influences competitiveness, performance and decision making, making these possible research variables. Also, Hughes (2005) mentions that CI can help an enterprise to understand how and where to find unique resources and capabilities that can help it to compete more effectively. CI therefore also influences resource management and capabilities, making these possible research variables.

CI is a strategic tool and aid in decision making (Nasri, 2011; Bourret, 2012; Patterson & Martzoukou, 2012). According to Bose (2008), CI is a vital component of an enterprise's strategic planning and management process. Furthermore, Bose (2008) and Hesford (2008) state that the primary output of CI is the ability to make forward-looking decisions. Zha and Chen (2009) argue that CI determines the survival of enterprises. Consequently, enterprises are paying attention to CI because it supports their needs in terms of gathering, interpreting and disseminating external information (Strauss & Du Toit, 2010). Thompson and Martin (2005) define strategy as a means to an end, and the end concerns the purpose and objectives of the enterprise. Pearce and Robinson (2005) define the strategic management process as a set of decisions and actions that results in the formulation and implementation of plans designed to achieve an enterprise's objectives. Simon (1997) proposes a three-phased process of decision making: (1) the intelligence phase, (2) the design phase and (3) the choice phase. Sauter and Free (2005) conclude that high-level decision makers are dependent on doing the first of these phases: the intelligence phase.

1.3 SMALL AND MEDIUM-SIZED ENTERPRISES

SMEs constitute the major part of the productive system in South Africa and without the creation of new SMEs, the country risks economic stagnation (Salles, 2006). Given the failure of the public sector to absorb the growing number of job seekers in South Africa, increasing attention is being focused on entrepreneurship and new enterprise creation, and its potential for contributing to economic growth and job creation Herrington, Kew & Kew (2009). According to Abor and Quartey (2010), SMEs have a crucial role to play in stimulating growth, generating employment and contributing to poverty alleviation, given their economic weight in African countries.

The most widely used framework for SMEs in South Africa is set out in the National Small Business Act 102 of 1996, which defines five categories of businesses in South Africa. The definition is based on the number of employees (the most common definition) per enterprise size combined with the annual turnover categories and the gross assets (excluding fixed property). The two enterprise categories are as follows (Abor & Quartey, 2010):

1) *Survivalist enterprise:* The income generated is less than the minimum income standard or the poverty line. This category is considered pre-entrepreneurial, and includes hawkers, vendors and subsistence farmers. (In practice, survivalist enterprises are often categorised as part of the micro-enterprise sector).

2) *Micro enterprise:* The turnover is less than the VAT registration limit (that is, R150 000 per year). These enterprises usually lack formality in terms of registration. They include, for example, *spaza* shops, minibus taxis and household industries. They employ no more than 5 people.
3) *Very small enterprise:* These are enterprises employing fewer than 10 paid employees, except mining, electricity, manufacturing and construction sectors, in which the figure is 20 employees. These enterprises operate in the formal market and have access to technology.
4) *Small enterprise:* The upper limit is 50 employees. Small enterprises are generally more established than very small enterprises and exhibit more complex business practices.
5) *Medium enterprise:* The maximum number of employees is 100, or 200 for the mining, electricity, manufacturing and construction sectors. These enterprises are often characterised by the decentralisation of power to an additional management layer.

SMEs are considered the backbone of economic growth in all countries. They contribute in providing job opportunities and act as suppliers of goods and services to large enterprises (Singh, Garg & Deshmukh, 2008). Abor and Quartey (2010) state that the performance of SMEs is important for both the economic development and the social development of developing countries. Furthermore, small businesses have been recognised as the engines whereby the growth objectives of developing countries can be achieved (Floyd & McManus; 2005). They are potential sources of employment and income in many developing countries. In addition, SMEs seem to have advantages over their large-scale competitors in that they are able to adapt more easily to market conditions, given their broadly skilled technologies.

Despite the potential role of SMEs to accelerated growth and job creation in developing countries, a number of bottlenecks affect their ability to realise their full potential (Abor & Quartey, 2010). In addition, Olawale and Garwe (2010) identify the following factors that hinder the progress of SMEs:

- access to finance
- lack of management skills
- location and networking
- inadequate investment in information technology and cost of production
- economic variables and markets
- crime and corruption
- labour, infrastructure and regulations

Furthermore, according to Singh et al (2008) SMEs may have the following constraints:

- scarcity of resources
- flat enterprise structure
- lack of technical expertise
- paucity of innovation
- occurrence of knowledge loss

The flat structure of SMEs can often leave employees frustrated because they are often unable to realise their short-term and mid-term career goals.

1.4 CITY OF TSHWANE METROPOLITAN MUNICIPALITY

The City of Tshwane Metropolitan Municipality (CTMM) was established on 5 December 2000. Previously, the following local authorities served the greater Pretoria and surrounding areas (www.tshwane.gov.za):

- Greater Pretoria Metropolitan Council
- City Council of Pretoria
- Town Council of Centurion
- Northern Pretoria Metropolitan Substructure
- Hammanskraal Local Area Committee

- Eastern Gauteng Services Council
- Pienaarsrivier Transitional Representative Council
- Crocodile River Transitional Council
- Western Gauteng Services Council
- Winterveld Transitional Representative Council
- Mabopane Transitional Representative Council
- Ga-Rankuwa Transitional Representative Council
- Eastern District Council

13 towns and townships form part of the municipal area: (1) Pretoria; (2) Centurion; 3) Akasia; (4) Soshanguve; (5) Mabopane; (6) Atteridgeville; (7) Ga-Rankuwa;(8) Winterveld; (9) Hammanskraal; (10) Themba; (11) Pienaarsrivier; (12) Crocodile River; and (13) Mamelodi.

Pretoria, as one component of the CTMM, is the administrative capital of South Africa and houses the Union Buildings. Government plays an important role in the CTMM's economy, but many other sectors are doing well. The CTMM has adapted to globalisation and has all the elements of a smart municipality, while CTMM is positioning itself as Africa's leading capital city of excellence. The task of the executive mayor and Mayoral Committee is to implement the political mandate to improve the socio-economic conditions of residents in the municipality.

The CTMM is the largest municipality in South Africa, after the Metsweding District Municipality has been incorporated. The CTMM comprises an area of 6368km^{2}and has a population of over 2.5 million. It has an active and diverse economy that contributes at least 26.9% of the Gauteng province's gross domestic product (GDP) and 9.2% of the national economy. The CTMM's economy is service-based, with government and financial service being the most prominent sectors. It also has a well-established manufacturing sector, with the automotive industry representing the biggest share. The CTMM's economy has, over the past decade, enjoyed above-average growth rates compared to national and Gauteng's averages and is expected to grow at the same pace.

The CTMM supports and develops small business, and has over 4000 small businesses (htt p://www.tshwane.gov.za). In the 2011/2012 financial year 93 small, micro and medium

enterprises (SMMEs) and 1993 cooperative members were supported and developed through enterprise development programmes driven by the local economic government.

The CTMM's most important assets are its strategic location, favourable climate, accessibility of affordable industrial sites, existing industries, office space in the city, education and research facilities, and an extensive labour market. The CTMM is a proven leader in the field of education, research and technology, electronics and information technology, and defence design and construction. An estimated 85 to 90% of all research and development in South Africa is conducted in the CTMM by institutions such as Armscor, the Medical Research Council (MRC), the Council for Scientific and Industrial Research (CSIR), the Human Sciences Research Council (HSRC) and educational institutions such as the University of South Africa (Unisa) and the University of Pretoria. The Business, Investment, Trade and Tourism Support Centre (BITTSC) provides a first step in promoting business with the nation's capital. Whether you consider an investment, trade transaction, joint venture, technology transfer or tourism opportunity, the BITTSC offers information and advice on services and support. The CTMM has prioritised the strategic national goals of job creation and sustainable growth. However, these goals cannot be realised without the creation of growth-oriented SMMEs (www.tshwane.gov.za).

1.5 RESEARCH PURPOSES

While it is acknowledged that CI is important to SMEs, it is not being practiced optimally in SMEs (Xinping, Cuijuan & Youfa, 2011). The study of CI in SMEs has not been as well documented as it has been in larger enterprises (Tarraf & Molz, 2006). Although there is a call to raise awareness of CI in general (Roth, 2005), there is no evidence of CI awareness and practices in SMEs (Saayman, Pienaar, De Pelsmacker, Viviers, Cuyvers, Muller & Jegers, 2008). Smith, Wright and Pickton (2010) confirm that there is a gap in the literature on CI awareness and practices in SMEs. The practice of CI is more of a challenge for SMEs than bigger businesses (Frion & Yzquierdo-Hombrecher, 2009; Smith et al, 2010). Although research on CI in SMEs has been undertaken in countries such as China, France, Turkey, the USA, Belgium, Canada, Switzerland, Japan, Sweden, Australia and India, it is still lacking in South Africa (Muller, 2005a; Muller, 2007a; Heppes & Du Toit, 2009; Smith et al, 2010; Koseoglu, Karayormuk, Parnell & Menefee, 2011).

The purposes of this study are to (1) establish the level and extent of awareness and practices of CI in SMEs (2) identify the challenges SMEs face in implementing CI and (3)

equip SMEs for decision making in order to help SMEs to gain competitive advantage in a turbulent global market and to enhance their economic growth.

1.6 RESEARCH AIMS AND QUESTIONS

The aims of this study are therefore to establish the level and extent of awareness and practices of CI in SMEs, the position of CI in enterprises and whether it gives these enterprises competitive advantage.

The following primary research questions are formulated from the research aims:

1) How aware are SMEs of CI?
2) How do SMEs practice CI?
3) How does CI affect the competitiveness of SMEs?

The following secondary research questions are formulated from the primary research questions:

1) To what extent are SMEs aware of and practicing CI?
2) How do SMEs become aware of CI?
3) How do SMEs create CI?
4) Where is CI positioned in SMEs?
5) Do SMEs perform strategic planning and what is the role of CI in the process?
6) What is the extent of competition among SMEs?
7) Does the practice of CI provide SMEs with competitive advantage?

1.7 RESEARCH OBJECTIVES

The following research objectives are formulated from the research questions outlined above.

Primary objectives:

1) to establish the extent to which SMEs are aware of CI
2) to ascertain to what extent SMEs practice CI
3) to determine the impact of CI on the competitive advantage of SMEs

Secondary objectives:

1) to establish the level of awareness and CI practices in SMEs
2) to establish how SMEs become aware of CI
3) to determine how SMEs create CI
4) to establish the positioning of CI in SMEs
5) to determine whether SMEs perform strategic planning and the role of CI in the process
6) to establish the level of competition among SMEs
7) to establish the impact of CI on the competitive advantage of SMEs

1.8 PROBLEM STATEMENT

Enterprises should become increasingly aware of the necessity to remain informed of their competitive environment (De Pelsmacker, Muller, Viviers, Saayman, Cuyvers & Jegers, 2005). Awareness precedes preference, decision making and the execution of the decisions taken (Radder & Huang, 2008). According to Frion and Yzquueline-Hombrecher (2009), implementing CI in a SME is a challenge. Research conducted on CI around the world has been based on case studies and large enterprises (Tanev & Bailetti, 2008; Hughes, 2005). Peltoniem and Vuori (2008), Tarraf and Molz (2006) and Hughes (2005) state that little research has been done on CI as it pertains to SMEs.

1.9 RESEARCH DESIGN

According to Tustin, Ligthelm, Martins and Van Wyk (2005) a research design is a plan that has to be followed to realise the research objectives or hypotheses of a study. It represents the master plan that specifies the methods and procedures for collecting and analysing the required information. Mouton (2005) views a research design as a plan or blueprint of how the researcher intends to conduct the research. Terreblanche and Durrheim (2002) argue that quantitative researchers collect data in the form of numbers and use statistical types of data analyses. The primary research design of this study will follow a quantitative approach. This is because the research study is intended to describe the current state of CI practice in SMEs.

1.9.1 Population

A target population refers to the entire group of items in which the researcher has an interest (Cooper & Schindler, 2006). The population or universe includes all people or establishments whose opinions, behaviour. Preferences and attitudes will yield information for answering the research question (Tustin et al, 2005). Saunders, Lewis and Thornhill (2000) define a population as the full set of cases from which data can be sourced, while According to Tustin et al (2005), the population is the group from which the sample will be drawn. These authors further point out that the population should include all the people or establishments whose opinions, behaviour, preferences and attitudes will yield information to answer the research question.

For the purpose of this study, SMEs in the CTMM will be the population used. The CTMM is the largest municipality in South Africa (after the Metsweding District Municipality has been incorporated) and has all the characteristics of a smart city. There is support for small business development.

1.9.2 Sampling plan

A sample can be drawn from the population for research purposes. A sample is a subset of the population; whereas a census is an accounting of the entire population (Tustin et al, 2005; Neuman, 2006). Sampling is the process of selecting a sample consisting of units (e.g. people and enterprises) from the population of interest (Tustin et al, 2005). Tustin et al explain that sampling is used when the population is too large or when the population is not easy to construct. By studying the sample, one may fairly answer the questions posed regarding some aspects of the population from which they were chosen (Trochim & Donnelly, 2007).

Quota sampling will be used for this study because of financial constraints and the unstructured nature of the research population. Data will be collected from every fifth SME and data collection will stop at the 100th SME. If 100 SMEs provide saturation of the information for the research study, sampling will be terminated. If not, the researcher will continue the sampling until sufficient information is collected to fulfil the aims of the study. According to Cooper and Schindler (2008), quota sampling is used to improve representivity. Moreover, with a quota sample, certain relevant characteristics describe the dimensions of the population. For this reason, the sample will be drawn from both rural and urban SMEs.

The units of analysis for this study will be entrepreneurs/CEOs/managers of SMEs (the latter being the units of investigation) in the CTMM (the domain where the study will be conducted). This is because the introduction, growth and long-term survival of SMEs depend largely on the entrepreneurial abilities and enterprise of the individuals who own and manage these businesses (Ritchie & Brindley, 2005). In order to cover all the types of areas in the CTMM, nine areas will be selected for the survey: (1) Mabopane; (2) Mamelodi; (3) Ga-Rankuwa; (4) Eersterust; (5) Atteridgeville; (6) Winterveld; (7) Silverton/Pretoria East; (8) the Pretoria CBD and (9) Rosslyn.

1.9.3 Data collection method

Primary and secondary sources will be used to collect information on CI awareness and implementation. Tustin et al (2005:132) state that there are original and acquired sources of secondary data. According to them, an original source generates the data, while an acquired source procures the data from an original source. The main source of secondary data for this study will be articles, books, press reports, Websites, dissertations and theses. Questionnaires will be used to collect the primary data. A pilot study will be conducted among specialists in CI in SMEs to ensure that the questionnaire is valid.

Babbie, Mouton, Vorster and Prozesky (2001) state that the most appropriate method of collecting data is by means of a questionnaire, especially for quantitative studies. For this reason, the primary data for this study will be collected by means of a structured questionnaire. However, questionnaires – like other data collection instruments – have their shortcomings, which should be carefully managed. Hand delivery and e-mailing of copies of the questionnaire to the respondents will ensure that they are completed and returned.

1.9.4 Questionnaire design

A structured questionnaire will be used in this study. Both open-ended and closed-ended questions will be incorporated in the questionnaire. Hague and Jackson (1996) define a questionnaire as a structured sequence of questions which is designed to draw out facts and opinions and which provides a vehicle for recording data. According to Crouch and Housden (1996), there are four main purposes of questionnaire design in the data collection process: (1) to collect relevant data; (2) to make data comparable; (3) to minimise biases and (4) to motivate the respondents to participate in the survey. Copies of the questionnaire for this study will be hand delivered and e-mailed to the respondents to ensure a high response rate.

The respondents will be talked through the questionnaire to ensure that they fully understand it. Assistance will be provided to respondents who do not understand the questions.

1.9.5 Data editing, coding, capturing and storing

Each completed questionnaire will be scrutinised to determine the acceptability of the data and to prepare for coding. The received questionnaires will be coded to ease data capturing. Thereafter, the data will be captured onto a computer file (Microsoft Excel) and exported to the Statistical Package for Social Sciences (SPSS) to produce tables. The captured data will be stored on a CD, flash drive and hard copy.

1.9.6 Validity and reliability

To ensure that the instrument used (in this case a questionnaire) is reliable, the questionnaire will go through a process called the test-retest method (Golafshani, 2003).The questionnaire will be tested in a few SMEs to ensure that it yields similar results. Joppe (2000) defines reliability as the extent to which results are consistent over time and reliability as an accurate representation of the total population under study. If the results of a study can be reproduced under a similar methodology, the research instrument is considered to be reliable. Kirk and Miller (1986) identify three types of reliability in quantitative research: (1) the degree to which a measurement that is given repeatedly remains the same, (2) the stability of a measurement over time and (3) the similarity of measurements within a given time period.

However, although the repeatability of the research instrument and internal consistency can be proven (and therefore the reliability), the instrument itself may not be valid (Golafshani, 2003). Validity is the degree to which a test measures what it is supposed to measure (Joppe, 2000). A pilot study among specialists in CI in SMEs will ensure that the questionnaire for this study is valid.

1.10 DELIMITATION

The study will be undertaken using 100 selected SMEs in the CTMM. This is because this sector of the economy is largely informal and unstructured, and limited research on CI in the CTMM has been conducted despite the assistance provided to SMEs. Given the CTMM's status as a smart city municipality, it is clear that research in this domain is valuable both from a theoretical perspective and an application point of view. The intention is not to

generalise the results given the nature of the sampling plan, but it is possible for other domains with the same characteristics to benefit from this study.

1.11 VALUE ADDED BY THIS RESEARCH STUDY

After establishing the extent of the awareness and practice of CI in SMEs, this study will list the barriers SMEs face in practicing CI. This list will help SMEs, researchers and academics to establish ways of eliminating these barriers. Furthermore, this study will determine how to position CI in SMEs and its (CI's) role in ensuring the competitiveness of SMEs for the larger benefit of the economy. Because of the CTMM's size and contribution to the South African economy, the development of CI to enhance competitiveness in this environment will also impact positively on the South African economy.

The rationale and outcomes of the study are depicted in figure 1.1 below.

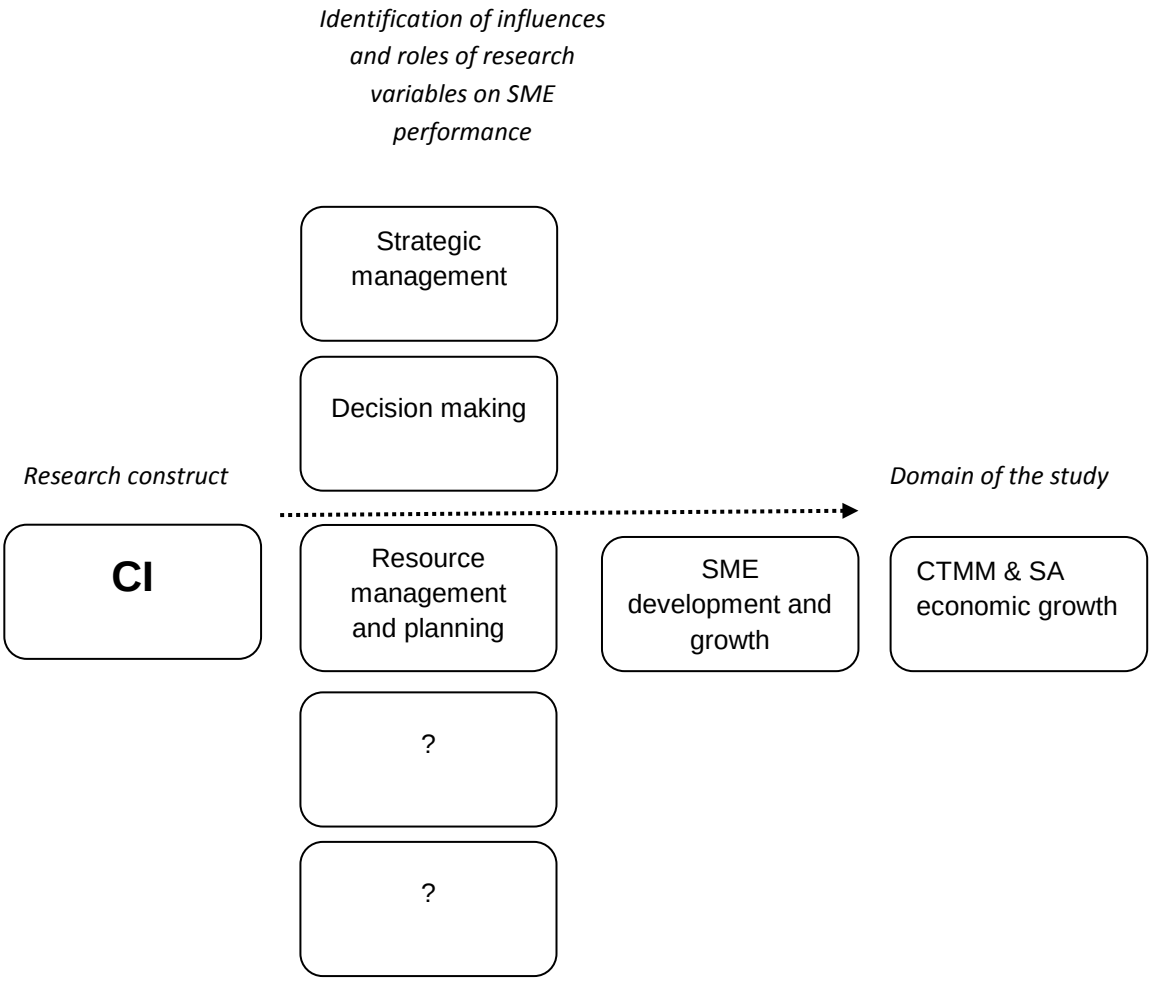

Figure 1.1: Rationale and outcomes of the study

1.12 CHAPTER LAYOUT

The chapter layout of the study is as follows:

Chapter 1: Introduction. This chapter will provide an overview, introduction and background to the study.
Chapter 2: Small and medium-sized enterprises in South Africa. This chapter will consist of a comprehensive study of SMEs and how they function.
Chapter 3: Competitive intelligence and strategic decision making. Chapter 3 will provide a thorough literature review about CI. The evolution of competitive intelligence, specifically in South Africa, and how it helps decision makers to make decisions will be explained.
Chapter 4: Research methodology. Chapter 4 will provide a brief background to the research and will contain a discussion on the research design, research method, research instrument, population, reliability, validation, limitations and ethical considerations of the study.
Chapter 5: Analysis of research results. This chapter will focus on how the research was conducted, the research results, and the correlation and cross-tabulation analyses. An analysis of the findings of the research will also be given. This chapter will combine the research findings and the literature findings.
Chapter 6: Conclusions and recommendations. Chapter 6 will include the final summary, the key findings, suggestions for future research, recommendations and conclusions.

The questionnaire and calculations will be shown in the appendices.

1.13 CONCLUSION

While CI is mostly practiced by larger enterprises in different industries such as banking, telecommunications and retail, research reveals that it is not well practiced in small enterprises. This study will establish the extent to which SMEs are aware of and practice CI. It will establish the value CI adds to the strategic management process and the decision-making process. Moreover, this study will determine the positioning and formality of CI in SMEs and will add economic value to the CTMM and to South Africa. In the next chapter SMEs are reviewed in terms of the deployment of CI.

CHAPTER 2: SMALL AND MEDIUM-SIZED ENTERPRISES IN SOUTH AFRICA

2.1 INTRODUCTION

The importance of SMEs in creating jobs and economic wealth is globally recognised (Nieman, 2006; Singh et al, 2008; Floyd & McManus, 2005; Ritchie & Brindley, 2005; Olawale & Garwe, 2010; Abor & Quartey, 2010; Krasniqi, 2007; Kyobe, 2009). SMEs employ more than 95% of the world's working population and are the main source of employment in developing countries (Chang, Wu & Cho, 2011; Abor & Quartey, 2010). As a result, governments throughout the world focus on the development of the SME sector to promote economic growth (Olawale & Gware, 2010). Olawale and Gware (2010) reveal that in South Africa, SMEs contribute 56% of the employment in the private sector and 36% of the GDP. However, gaining a competitive advantage presents an enormous challenge for SMEs. According to Prior (2007), this is because they have many competitors that offer similar products or services and operate in the same markets and locales. Moreover, SMEs have limited resources. Prior suggests that CI is the key to SMEs' competitiveness.

The purpose of this chapter is to review the existing literature on SMEs. The most current literature will be used, although the older ones will not be ignored. The chapter begins with an introduction and this is followed by an explanation of what an SME is. Different forms of business and the management of SMEs, SMEs' functional management, e-business, SMEs' growth, and globalisation and CI are then discussed.

2.2 SMALL AND MEDIUM-SIZED ENTERPRISES

SMEs are rarely reported on in the financial section of daily newspapers despite being the bulk of enterprises in all the economies of the world. In South Africa some newspapers carry the odd page per week on small business, but this is not enough to create more awareness of this important concept (Nieman, 2006). Moreover, politicians emphasise the importance of SMEs as a mechanism for job creation, innovation and the long-term development of economies. According to Grimes, Doole and Kitchen (2007), one of the reasons why the activities of SMEs in international markets are viewed as deserving special attention is the challenge SMEs with limited resources face when competing in these markets. In this section we discuss SMEs and their sub-concepts.

2.2.1 Definition of a small and medium-sized enterprise

According to the National Small Business Act 102 of 1996, “small business” means a separate and distinct business entity (including co-operative enterprises and non-government enterprises) managed by one owner or more which, including its branches or subsidiaries (if any), is predominantly carried on in any sector or subsector of the economy and which can be classified as a micro-enterprise, a very small enterprise, a small enterprise or a medium enterprise. Table 2.1 below depicts the criteria which small businesses in different sectors or subsectors must meet to be categorised as small, very small, medium or micro-enterprises.

Table 2.1: Small business as defined in the National Small Business Amendment Act 102 of 1996

Sector or subsectors in accordance with standard industrial classification	Size or class	Total full-time equivalent of paid employees Less than	Total annual turnover Less than	Total gross asset value (fixed property excluded) Less than
Agriculture	Medium	100	R5.00m	R5.00m
	Small	50	R3.00m	R3.00m
	Very small	10	R0.50m	R0.50m
	Micro	5	R0.20m	R0.10m
Mining and quarrying	Medium	200	R39.00m	R23.00m
	Small	50	R10.00m	R6.00m
	Very small	20	R4.00m	R2.00m
	Micro	5	R0.20m	R0.10m
Manufacturing	Medium	200	R51.00m	R19.00m
	Small	50	R13.00m	R5.00m
	Very small	20	R5.00m	R2.00m
	Micro	5	R0.20m	R0.10m
Electricity, gas and water	Medium	200	R51.00m	R19.00m
	Small	50	R13.00m	R5.00m
	Very small	20	R5.10m	R1.90m
	Micro	5	R0.20m	R0.10m
Construction	Medium	200	R26.00m	R5.00m
	Small	50	R6.00m	R1.00m
	Very small	20	R3.00m	R0.50m
	Micro	5	R0.20m	R0.10m
Retail and motor trade, and repair services	Medium	200	R39.00m	R6.00m
	Small	50	R19.00m	R3.00m
	Very small	20	R4.00m	R0.60m
	Micro	5	R0.20m	R0.10m
Wholesale trade, commercial agents and allied services	Medium	200	R64.00m	R10.00m
	Small	50	R32.00m	R5.00m
	Very small	20	R6.00m	R0.60m
	Micro	5	R0.20m	R0.10m
Catering, accommodation and other trade	Medium	200	R13.00m	R3.00m
	Small	50	R6.00m	R1.00m
	Very small	20	R5.10m	R0.90m
	Micro	5	R0.20m	R0.10m
Transport, storage and communications	Medium	200	R26.00m	R6.00m
	Small	50	R13.00m	R3.00m
	Very small	20	R3.00m	R0.60m
	Micro	5	R0.20m	R0.10m
Finance and business services	Medium	200	R26.00m	R5.00m
	Small	50	R13.00m	R3.00m

	Very small	20	R3.00m	R0.50m
	Micro	5	R0.20m	R0.10m
Community, social and personal service	Medium	200	R13.00m	R6.00m
	Small	50	R6.00m	R3.00m
	Very small	20	R1.00m	R0.60m
	Micro	5	R0.20m	R0.10m

2.2.2 Classification of small businesses

According to Abor and Quartey (2010), the most widely used framework to classify small businesses in South Africa is the National Small Business Act 102 of 1996, which defines five categories of small businesses in South Africa. Small businesses are classified using the number of employees per enterprise combined with the annual turnover and gross assets (excluding fixed property). The classifications are as follows (Abor & Quartey, 2010; Nieman, 2006):

1) *Survivalist enterprise:* The income generated is less than the minimum income standard or the poverty line. This category is considered pre-entrepreneurial and includes hawkers, vendors and subsistence farmers. In practice, survivalist enterprises are often categorised as part of the micro-enterprise sector.
2) *Micro-enterprise:* The turnover is less than the VAT registration limit (that is, R150 000 per year). These enterprises usually lack formality in terms of registration. They include spaza shops and the minibus taxi and household industries. They employ no more than five people.
3) *Very small enterprise:* These are enterprises that have fewer than 10 paid employees. This excludes enterprises in the mining, electricity, manufacturing and construction sectors, for which the figure is 20 employees. These enterprises operate in the formal market and have access to technology.
4) *Small enterprise:* The upper limit is 50 employees. Small enterprises are generally more established than very small enterprises and exhibit more complex business practices.
5) *Medium enterprise:* The maximum number of employees is 100(or 200 for the mining, electricity, manufacturing and construction sectors). These enterprises are often characterised by the decentralisation of power to an additional management layer.

2.2.3 Reasons for the existence of small and medium-sized enterprises

While many researchers (Nieman, 2006; Singh et al, 2008; Floyd & McManus, 2005; Ritchie & Brindley, 2005; Olawale & Garwe, 2010; Abor & Quartey, 2010; Kyobe, 2009) agree that SMEs make a major contribution to the economic growth of countries, there are many other reasons why SMEs exist. According to Nieman (2006), SMEs exist for the following reasons:

- *Create ease of entry and start-up for new and nascent entrepreneurs:* Potential entrepreneurs can enter the economy through small business ventures because they require relatively little finance and other resources. Small business therefore creates entrepreneurial start-up activity in all economies.
- *Maintain a close relationship with customers and the community:* Small business ventures tend to be in close touch with their communities and customers. They attract customers through their location in suburbs and their personal services. An atmosphere of friendliness and personal attention makes people feel good about patronising them and encourages them to continue to support them.
- *Form a vital link in the supply chain:* Small businesses are often located where big businesses do not go. Small businesses are valuable links in the supply and distribution chains of large businesses. They are generally the final link with the consumer. Without their presence, one would have had more vertical integration in large enterprises. They also take and handle smaller quantities in the supply chain, which makes products more accessible to consumers.
- *Provide employees with comprehensive learning experiences:* Small businesses provide employees with a variety of learning experiences compared to the more specialised jobs in large enterprises. They often offer more freedom in the work environment and employees can learn all the business processes and functions.
- *Develop risk takers:* Entry into the small business environment is relatively easy and therefore exposes entrants to the risk (and rewards) of business very quickly. Small business owners have relative freedom to enter or leave a business at will, to start small and to grow, and to succeed or fail, which is the basis of the free-market system.
- *Generate new employment:* The propensity of small business to create employment is well documented in many countries. Small businesses, especially growing ventures, create employment by creating job opportunities. They also serve as a training ground for employees.

- *Fill gaps left by bigger businesses:* Bigger or established businesses tend to leave gaps in the market for numerous reasons. Once these gaps (however small) are left open, it makes it very easy for smaller enterprises to spot the opportunity and make the most of it.

2.2.4 Reasons why bigger businesses leave gaps in the market

The most common reasons why bigger or more established businesses leave gaps in the market are the following (Nieman, 2006):

- *Failure to see new opportunities:* Opportunities must be consciously and actively sought by the entrepreneur. In order to grow and not fall prey to the trap of rigidity, bureaucracy and stagnation, large enterprises should actively search for new opportunities. Large businesses should scan the environment for opportunities that they can capitalise on by utilising their strengths. Failure to do this may result in enterprise inertia, which means the failure or inability to respond to environmental changes as they occur. This often leads to the loss of the enterprise's competitive edge.
- *Underestimation of new opportunities:* Large enterprises with substantial turnovers tend not to regard opportunities that represent only a fraction of their turnover as being lucrative. As a result, smaller enterprises will often pursue opportunities that a larger enterprise will not because to the smaller enterprise, these opportunities have value and are therefore attractive.
- *Technological inertia:* Due to the agility and flexibility of small businesses and their need to survive, they tend to be very quick to spot new technologies and run with them. This often leaves big businesses in a very precarious position.
- *Cultural inertia:* Large businesses tend not to be too keen to change the way they do things in order to meet or surpass the challenges that the market environment may throw at them. Their unwillingness to change puts them in a position of not being able to pursue new opportunities. This leaves wide open gaps for technologically and culturally nimble smaller enterprises to take advantage of the opportunities and cash in substantially.
- *Politics and internal fighting*: Once individual employees start to feel that their best interests are not considered by the enterprise, infighting begins. If the enterprise does not work as a cohesive whole from an internal perspective, it becomes

extremely difficult – if not impossible – to pursue valuable opportunities because no general consensus has been reached.

- *Government intervention to support new (and smaller) entrants:* Due to SMEs' contribution to the economic growth of their countries and job creation, governments tend to offer greater support to SMEs. This support takes the form of skills training, financing, access to government tenders and assistance with market access, as well as the development and implementation of small business friendly legislation. This support favours smaller businesses, which enables them to grab opportunities that are placed in their lap while bigger enterprises are forced to fend for themselves.

Enterprises have weaknesses and strengths, and therefore most enterprises decide to specialise. Due to specialisation, large enterprises leave gaps in the market. These gaps become opportunities for SMEs.

2.2.5 Differences between small and medium-sized enterprises and large businesses

Longenecker, Moore and Petty (2003) and Frion and Yzquierdo-Hombrecher (2009) identify the following differences between SMEs and large businesses:

- small business management often lacks professionalism
- managerial inefficiency is common in small enterprises
- founders tend to be action oriented and less analytical than professional managers
- small business managers face special financial and human resources constraints
- as a new business grows, a need develops to add new levels of supervision and to increase the formality of management
- it is necessary for the founder of a business to, over time, become more of a manager and less operationally involved
- it is important for an entrepreneur to have exceptional negotiation skills in order to influence the business environment, both inside and outside the enterprise

2.2.6 Importance of small and medium-sized enterprises to the country

SMEs are increasingly seen as playing an important role in the economies of many countries. Thus, governments throughout the world focus on the development of the SME sector to promote economic growth (Fatoki & Odeyemi, 2011). Nieman (2006) reveals that

SMEs contribute 36.1% to South Africa's GDP. SMEs help in reducing unemployment, which is estimated at 25.5% of the economically active population (Statistics South Africa, 2010).

2.3 FORMS OF BUSINESS ENTERPRISES

According to Nieman (2006), a business can use one of the following forms to conduct business:

1) *Sole proprietorship:* It only has one owner and there is no distinction between the personal estate of the owner and the business estate. The business is not a separate legal entity. The owner conducts business in his or her personal capacity and does not have to register the business as a legal entity. Owners are taxed in their personal capacity on the scale applicable to individuals. A sole proprietorship is easy to start, but the owner is liable for all the debts and liabilities of the business.
2) *Partnership:* A partnership is formed when a minimum of two and a maximum of 20 people conclude an agreement to do business as a partnership. The agreement can be verbal or written, or by conduct. A partnership agreement must contain the following terms: (a) the partners must have a common purpose to make profit; (b) the business of the partnership must be conducted to the common advantage of all its partners; and (c) each partner has to contribute in some way or another to the partnership. Because a partnership is not a separate legal entity, there is no distinction between the estates of individual partners and the estate of the partnership. Each partner may be held liable for all the debts of the business. The partners are taxed on their individual share of the income generated by the business. When the members of the partnership change, the partnership is dissolved and a new one has to be formed.
3) *Close corporation:* A Close Corporation (CC) is a separate legal entity and is regulated in terms of the Close Corporation Act 69 of 1994. The CC must be registered in term of this Act in order to attain separate legal entity status. A CC must have at least one member and not more than 10 members. Only a natural person can become a member of the CC and members enjoy limited liability. The members of the CC share the management of the business. The share that a member has in a CC is called member's interest. A CC is taxed on the same basis as an enterprise. While a CC is obliged to keep proper accounting records and prepare annual financial statements, it is not necessary to conduct an audit these statements unless its members want to do so.

4) *Company:* A company is an association of people incorporated in terms of the Companies Act 61 of 1973. A company can have share capital or can be incorporated not for gain, in which case it will not have share capital. Profit-making companies may take one of two forms: public or private. A private company cannot be listed on the Johannesburg Securities Exchange (JSE) but a public company can. A company that is listed on the JSE can issue shares to the public to fund its business. A private company must be registered with the Registrar of Companies and is identified by words "(Proprietary) Limited" or the abbreviation "(Pty) Ltd" after its name. There is a restriction on the transfer of a private company's shares. There is also a limitation on the number of directors. A company is a legal entity that is separate from its shareholders and members have limited liability. A company must prepare financial statements, but is not obliged to publish them.

2.4 MANAGING SMALL AND MEDIUM-SIZED EENTERPRISES

Management is a process whereby human, financial, physical and information resources are employed in order to reach the goals of an enterprise (Du Toit, Erasmus & Strydom, 2010). Schermerhorn (2011) and Smit, Cronje, Brevis and Vrba (2011) define management as planning, organising, leading and controlling the use of resources to accomplish performance goals. Botha and Musengi (2012) argue that management is the process of using an enterprise's resources in such a way that it achieves specific objectives. Considering the environment, Weihrich, Cannice and Koontz (2010) define management as the process of designing and maintaining an environment in which individuals, who are working together in groups, efficiently accomplish selected aims. Figure 2.1 depicts the four fundamental management tasks.

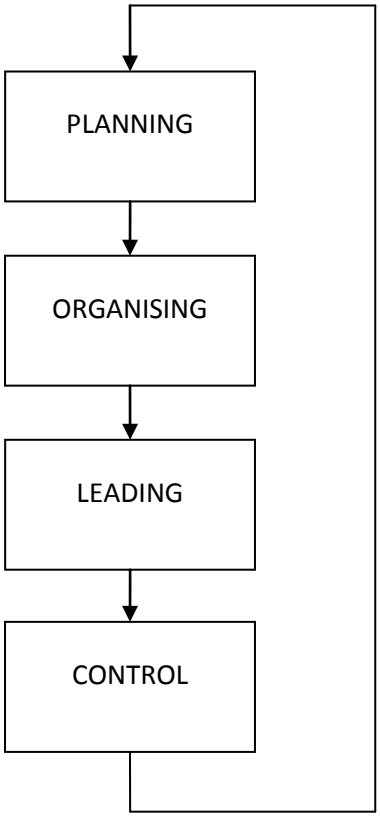

Figure 2.1: The four fundamental management tasks presented as a process (source: Cronjé, Du Toit, Marais & Motlatla, 2007)

2.4.1 Planning

Planning determines the mission and goals of the business, including the ways in which the goals are to be reached in the long term and the resources that are needed for the task. It includes determining the future position of the business, and guidelines or plans on how that position is to be reached (Du Toit et al, 2010). Schermerhorn (2011) points out that planning is the process of setting performance objectives and determining what actions should be taken to accomplish them. Through planning, a manager identifies desired results and ways to achieve them. Botha and Musengi (2012) argue that planning involves identifying the enterprise's goals and objectives and developing a strategy for achieving them. Moreover, a plan is a blueprint, a guide for goal achievement. According to Weihrich, Cannice and Koontz (2010), planning is the responsibility of top-level managers.

2.4.2 Organising

Organising is the process of assigning tasks, allocating resources and coordinating work activities. It is the first step in the implementation of the plan (Schermerhorn, 2011). According to Du Toit et al (2010), organising includes developing a framework or enterprise structure to indicate how people, equipment and materials should be employed to reach predetermined goals. Nieman (2006) argues that the enterprise structure of a small business can be defined as “one man can do it all”. It emphasises the fact that it is a structure that involves a leader and workers who are all responsible to the leader. In this kind of structure, the owner focuses on all the areas of the business, taking charge of production, sales and others.

Compared to large businesses, small businesses’ employees can easily communicate with the business owner on a daily business; whereas large businesses have protocols or lines of communication between the top management and the employees at group level. In addition, larger businesses have formal structures that enable the business to work more effectively and efficiently. While the small business owner is responsible for the whole operation of the business, larger businesses are divided into different enterprise levels for ease of operation.

2.4.3 Leading

According to Du Toit et al (2010), leading entails directing the human resources of the business and motivating them. Leading requires a great deal of time from first-line supervisors (Weihrich et al, 2010). Small businesses can function successfully with only one level of management (Nieman, 2006). Moreover, the strength of small businesses lies in the owner-manager’s willingness to create a satisfactory working environment for all employees, because the success of the enterprise depends to a large extent on their personal involvement in the enterprise.

2.4.4 Controlling

Control means that managers should constantly establish whether the business is on a proper course towards accomplishing its goals. At the same time, it forces management to ensure that activities and performance conform to the plans for reaching predetermined goals (Du Toit et al, 2010). According to Botha and Musengi (2012), control ensures that the results that are achieved correspond with what objectives had to be achieved in the first place. This is to ensure that the business is on course and that everybody in the enterprise

works to the advantage of the enterprise. Nieman (2006) maintains that small business owners have to control the business by ensuring that records are kept and procedures are adhered to for the business to run efficiently. Moreover, lack of staff means that the owner cannot delegate and has to do the work himself or herself.

2.5 FUNCTIONAL MANAGEMENT OF SMALL AND MEDIUM-SIZED ENTERPRISES

Despite the limitation posed by incomprehensive financial affairs, low competitiveness, insufficient human resources and incomplete enterprise, SMEs do have advantages such as management flexibility, strong reactive ability, resilience and vitality (Chang et al, 2011). All businesses, small or large, must perform different management functions. Nieuwenhuizen (2011) states that in order for a business to operate on a profitable, successful and sustainable basis, a number of business functions and activities have to be identified and managed. Moreover, no single business function is more or less important than the others. According to Du Toit et al (2010), functional management refers to specialised managers who are necessary for the different functions of the business. Moreover, functional management forms part of middle management in an enterprise. Functional management includes marketing management, financial management, operational management and human resource management. These functional forms of management are briefly discussed in the subsections below.

2.5.1 Marketing management

A precept of the marketing concept contends that businesses achieve success by determining and satisfying the needs, wants and aspirations of target markets. Scholars have identified significant differences between large and small enterprises. Large enterprises tend to use a structured framework with a clear hierarchy in decision making, while small enterprises tend to feature processes that begin with and highly involve the entrepreneur or owner (Walsh & Lipinski, 2009). However, just like large businesses, small businesses must market their products or services to potential customers. According to Du Toit et al (2010), marketing is the bridge between a business and its environment, bringing into contact the business and its market, providing input in the development of the business's mission and strategies, and helping to correlate the resources of the business with the demands of the market. Marketing involves product development, pricing, distribution, promotion and after-sale service. Stokes and Wilson (2006) conclude that marketing is the key to the survival of a young enterprise and an essential ingredient in the development of a sustainable business in the long term.

2.5.2 Financial management

According to Nieuwenhuizen (2011), financial managers are responsible for acquiring the necessary financial resources to ensure the most advantageous financial results for the small business over both the short term and the long term. According to Nieman (2006), sources of finance for small businesses include equity financing (owner's capital such as savings, investments, sale of assets and inheritance), debt financing by financial institutions and informal financing (such as from friends or family, micro-financing, government schemes, community-based lending and venture capital.

2.5.3 Operations management

Simply defined, operations management is the management of systems or processes that create goods and/or provide services (Stevenson, 2007). Pycraft, Singh, Phihlela, Slack, Chambers, Harland, Harrison and Johnston (2008) state that operations management is about the way enterprises produce goods and services. Defined broadly, operations management refers to the systematic design, direction and control of processes that transform inputs into services and products for internal and external customers (Krajewski, Ritzman & Malhotra, 2010). Slack, Chambers and Johnston (2010) conclude that everything you wear, eat, sit on, use, read or knock about on the sports field comes to you courtesy of the operations managers who organised the production of these products. It is therefore clear that the core of operation management is the transformation of inputs into outputs. Figure 2.2 below depicts the transformation process.

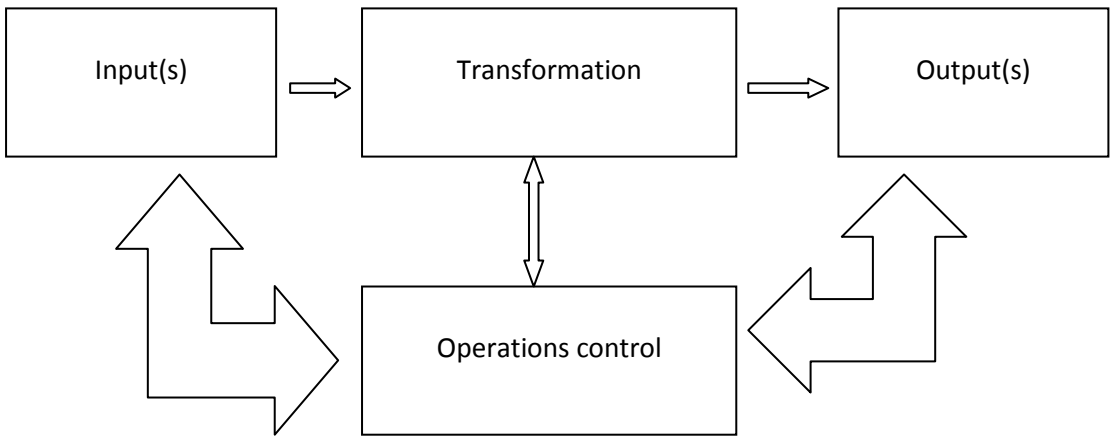

Figure 2.2: The operations model (source: Nieman, 2006)

2.5.4 Human resource management

People are very important resources in any enterprise (Botha & Musengi, 2012). Moreover, without people to work in it, there would be no business. People must be managed efficiently and effectively in order to meet the objectives of the enterprise (Stokes & Wilson, 2006). Botha and Musengi (2012) define human resource management as a function within enterprises that is responsible for the management of people and for providing direction for the people who work in the enterprise. According to Nieuwenhuizen (2011), just like the heart supplies the body with blood to enable it to live, the human resource function supplies the business with people to enable it to do business continuously. Small businesses should employ and manage their human resources in order to survive and grow (Nieman, 2006). The elements of human resource management are depicted in figure 2.3 below.

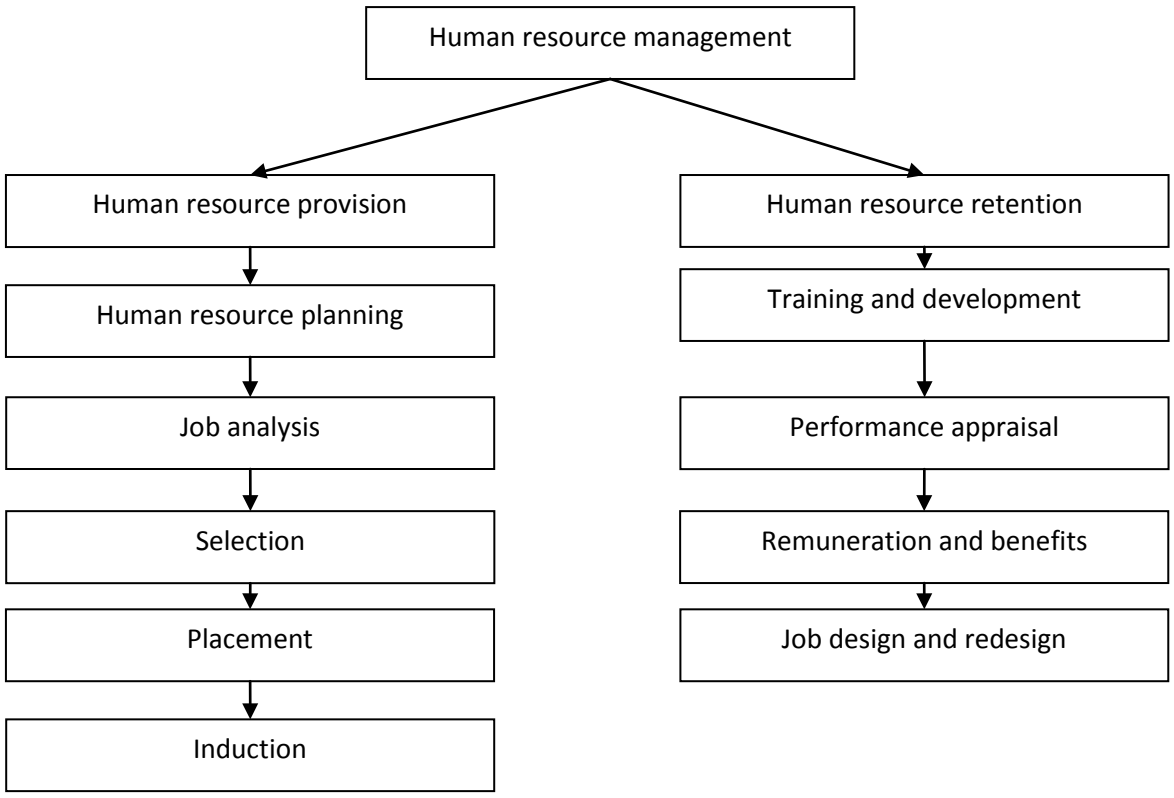

Figure 2.3: The primary activities and tasks of human resource management (source: Botha & Musengi, 2012)

2.6 SMALL AND MEDIUM-SIZED ENTERPRISES AND E-BUSINESS

It is widely accepted that electronic business (e-business) offers new opportunities for SMEs to offset competitive disadvantages of size, resources, geographic isolation and market scope. Despite the potential benefits, however, the adoption and use of these technologies by SMEs have been slow. Even where governments or other agencies have promoted the benefits or provided incentives to small businesses, it has been primarily larger businesses that have benefited the most from this technology (Wymer & Regan, 2011).

Because of globalisation, small businesses are using e-business to gain competitive advantage over larger enterprises (Ghobakhlo, Arias-Aranda & Benitez-Amado, 2011; Ifinedo, 2011; Amiri & Salarzehi, 2010; Magal, Kosalge & Levenburg, 2009). In addition, e-business contributes to the advancement of businesses in developing countries (Ghobakhlo et al, 2011). Other benefits of e-business include reduction in communication and administrative costs, continuous replenishment, improved sales, improved information sharing efficiency, improved transactional efficiencies and quick response retailing (Ghobakhlo et al, 2011). Ghobakhlo et al (2011) point out that in most developing countries e-business has been hindered by the quality, availability and cost of the necessary infrastructure, while developed countries have employed their relatively well-developed, accessible and affordable infrastructure for e-business. In contrast to the benefits derived from the application of e-business, internet technologies have increased individual vulnerabilities to fraud and theft and have raised concerns about privacy and policy (Magid et al, 2009).

E-business is defined as doing business through automatic transactions, exchanges and interactions by using information and communications technologies in view of economic objectives (Amiri & Salarzehi, 2010). Cheng and Lewis (2010) go further and define e-business as the process of exchanging goods, services and payments through electronic transactions typically performed through electronic data interchange (EDI), virtual private networks (VPNs) or the internet.

According Amiri and Salarzehi (2010), e-business can be classified as: (1) business to business (B2B), (2) business to consumer (B2C), (3) consumer to consumer (C2C), (4) business to government (B2G) and (5) government to business (G2B). When businesses trade with each other electronically, it is labelled B2B. B2C is when businesses sell products or services to customers. When customers sell products to each other, it is named C2C (e.g. when a customer decides to sell his or her old television to another customer, C2C has

happened). B2G happens when a business sells products or services to the government; whereas G2B is when the government sells products or services to businesses. The following tools are available to help businesses to conduct e-business (http://www.ehow.com/list_6573038_e_business-tools.html):

- *Websites:* Every online entrepreneurial venture starts with the most basic tool of e-commerce: an effective website. A website gives online customers a destination on the internet and serves as a powerful marketing tool for the business owner. Depending on the hosting enterprise, some website services come with essential tools such as script interpreters and secure socket layer (SSL) certificates that ease the process of building a fully functional e-commerce site.
- *Shopping carts:* To facilitate online sales, many entrepreneurs choose shopping cart software designed to present offerings to customers, handle transactions and maintain basic reporting functionality. Designed to serve as a component of a website, this software handles many of the sales functions associated with e-commerce and shopping cart add-on modules can process customer payments by using a variety of payment methods. Web entrepreneurs can select a number of robust and fully functional open source shopping cart systems that are available for free. Commercially available shopping cart applications add a level of reporting and other back-end functionality that streamline the online sales process.
- *Merchant accounts:* When a customer browses an e-commerce-enabled website and completes a purchase through the online shopping cart software, the e-commerce system must collect some form of web-friendly payment. Because customers cannot submit cash payments over the internet, many web entrepreneurs use merchant accounts to collect customer credit card information, charge cards and transfer the appropriate funds to the merchant's bank account. Fees for these financial services vary considerably between merchant account service providers, according to the merchant account review website TamingTheBeast.net, and typical merchant accounts feature both monthly and per-transaction fees.
- *Blogs:* With an e-commerce-enabled website established and ready to accept payments, e-commerce merchants need a public outlet for announcing new products and promotions, communicating important information about the business and providing general customer updates. According to *The E-Commerce Times*, an e-commerce-oriented online magazine, blogs serve a number of basic functions that are critical in keeping customers engaged and ready to complete additional purchases.

- *Social media:* Just as blogs serve a basic but critical communication purpose for e-commerce business owners, social networking services allow merchants to communicate more directly and interactively with their existing clientele and with potential new customers. By maintaining a presence on major social networking sites, according to Entrepreneur.com, e-commerce merchants can expand their online presence and keep their customers informed about new products, valuable services and upcoming promotions.
- *E-mail:* As one of the oldest and most established tools available for online interaction, e-mail is also an important mode of communication and promotion for e-commerce business owners. E-mail allows customers to submit their questions and concerns directly to the merchant and merchants can use e-mail distribution lists to quickly, conveniently and reliably communicate promotional information to interested parties.

2.7 GROWTH OF SMALL AND MEDIUM-SIZED ENTERPRISES

Because they grow the economy of the country and create employment for citizens, SMEs also grow themselves (Krasniqi, 2007). Furthermore, they grow faster than larger enterprises (Krasniqi, 2007). When they grow, SMEs become more competitive. This is because they are able to acquire the resources needed to compete both locally and internationally. However, according to Nieman (2006), growth will not take place if the small business entrepreneur does not have a desire or vision to grow. Nieman points out that the essence of successful growth lies in the ability of the entrepreneur to employ the different business functions to transform the small business into a truly entrepreneurial one. Table 2.2 below shows the growth indicators.

Table 2.2: Growth indicators (source: Nieman, 2006)

Growth indicators	**Implications**
Financial	An increase in • turnover • costs • investment • profits • assets • value
Strategic	Changes taking place in the small business through • mergers or acquisitions • exploiting new markets • new product development • becoming self-sustainable • change in organisational form

	• obtaining a competitive advantage
Structural	Changes taking place in the small business in terms of • managerial roles • increasing the responsibilities of employees • reporting relationships • communication links • internal systems utilisation • increasing the number of employees
Organisational	Changes taking place in the small business, such as: • process utilised • organisational culture • the attitudes of management towards staff • the entrepreneur's role • leadership style
Image	Changes taking place in the small business, such as: • becoming more formal, for example having formal business premises • moving to newly built premises • redecorating the premises • moving to a new environment

Although most people regard financially secure SMEs as successful, finance alone does not determine the growth of SMEs (Nieman, 2006). Table 2.2 above indicates that in addition to finance, growth can be viewed according to strategic, structural, organisational or image indicators.

2.7.1 Barriers to the growth of small and medium-sized enterprises

Although SMEs have potential to grow, there are certain barriers to their growth. Entrepreneurs must be ready to deal with these barriers if they want their businesses to grow and they should have certain skills to deal with these barriers. These skills are listed in the next section. According to Krasniqi (2007), the following are barriers to SMEs' growth:

- *The macro-economic environment:* When the purchasing power of customers decreases, SMEs may not have saved enough to survive. If certain industries have barriers to entry, SMEs may not qualify to enter. Recessions may also make it difficult for SMEs to grow.
- *The legal and regulatory environment:* SMEs have fewer employees than larger enterprises. As a result, they may not have the skills to comply with all the rules and regulations. This may hinder them from growing.
- *Unfair competition, informal economy and corruption:* Larger enterprises may create an unfair competitive environment by buying suppliers and making it difficult for small enterprises to get products or services at cheaper prices. Moreover, large enterprises may bribe the people responsible for issuing tenders.

- *Financial obstacles:* SMEs may need external funds to grow. Start-ups usually find it difficult to obtain funds from banks because they do not have financial statements. Banks may find SMEs more risky and decide not to lend them funds.
- *Tax burdens:* When SMEs are taxed the same way as larger enterprises, it gives larger enterprises an advantage. SMEs may not have the skills to prepare tax returns and have to employ outside people, which may strain their business.

2.7.2 Skills required for the growth of small and medium-sized enterprises

The skills and capacity of the SME entrepreneur will affect the SME's potential for growth. Nieman (2006) identifies the following entrepreneurial skills that are required for SME growth:

- self-development
- networking
- relationship marketing
- time management
- stress management
- presentation skills
- negotiation skills
- general management skills
- record keeping
- financial management
- computer skills
- risk management.

2.8 SMALL AND MEDIUM-SIZED ENTERPRISES AND GLOBALISATION

SMEs do not only affect the country's economy but also that of the world (Walsh & Lipinski, 2009). This is because of the globalisation of markets and operations, as well as technological advances, which has radically increased the competition among SMEs over the years (Gunasekaran, Rai & Griffin, 2011; Rammer & Schmiele, 2009; Singh et al, 2008). Hence, SMEs have to develop and enhance their capability quickly in response to globalisation (Chadwick, Ghafoor, Khail, Khan & Hassan, 2011). Muhammad, Char, Yasoa and Hassan (2010) argue that globalisation creates new structures and new relationships, with the result that business decisions and actions in one part of the world have significant consequences in other places. They conclude that the force behind globalisation is the rapidly changing technological environment, particularly in information processing and telecommunications. Moreover, they state that changes in telecommunications and data-processing capabilities make it possible to coordinate research, marketing and production operations around the world. Muhammad et al (2010) and Nieman (2006) maintain that the growth of global markets stimulates competition and forces governments to adopt market-oriented policies, both domestically and internationally. Therefore, SMEs must be prepared to compete with both local and international enterprises. Zha and Chen (2009) conclude that CI is a mechanism SMEs can adopt to compete globally.

2.8.1 Key success factors

According to Muhammad et al (2010), the key success factors for SMEs in the globalised environment are as follows:

- sound management capability and integrity
- sound business cultures and entrepreneurial spirit
- prudent financial management
- high-quality products and services
- effective programmes for human resource development
- strong support from financial institutions
- strong marketing strategies
- continuously looking for opportunities to expand.

2.9 COMPETITIVE INTELLIGENCE IN SMALL AND MEDIUM-SIZED ENTERPRISES

The modern business environment is characterised by stiff competition, rapid technological advancements, and changing requirements of customers and employees. To grow and survive in this turbulent environment, SMEs must invest in long-term competitiveness. Moreover, SMEs' owner-managers must make informed decisions to survive in the competitive environment (Temtime, 2008). Prior (2007) emphasises that gaining a competitive advantage presents an enormous challenge for SMEs. This is because SMEs have many competitors offering similar products or services and operating in the same market and location. Therefore, external environmental information is critical to the survival and growth of SMEs (Yap & Rashid, 2011). According to Akhtar, Raees and Salaria (2011), globalisation has made it easy for enterprises to import and export and this has led to increased competition. Yap and Rashid (2011) conclude that CI helps in decision making and offer a competitive advantage to an enterprise. Moreover, they indicate that the majority of business enterprises have some sort of CI activities in place, whether performed formally or not. Because SMEs are different from large businesses, their practice of CI is different from that of large businesses. Salles (2006) found the following differences between SMEs and large enterprises:

1) While big enterprises are in the business of satisfying an expressed reliable demand, SMEs combine answers to expressed demands and uncover unexpressed needs.
2) The processes of decision making are generally little formalised within SMEs, even for relatively repetitive decisions (tactical or operational decisions).
3) Within SMEs, the same decision-makers are constantly facing situations where they are required to make decisions at varied levels and with different implications.
4) Within big enterprises solving new problems is dealt with in a relatively codified or predetermined way, while in SMEs it is mostly done as problems arise and in a tacit way.
5) Big enterprises use well-established procedures – sometimes even routines – to coordinate themselves with their environment; this is more rarely the case in SMEs.

Without CI at their disposal, SMEs will find it almost impossible to compete in a global economy. It is a false expectation if owners expect to succeed without implementing CI (Bleoju, 2011). Therefore, SMEs' owner-managers must invest in CI for the survival of their businesses (Mendlinger, Miyake & Billington, 2009). According to Zha and Chen (2009), successful application of CI helps an SME to win a competitive advantage by identifying the potential threats and opportunities in the market as soon as possible and by reducing

competitors' response time equal to increasing their own response time. In addition, CI not only facilitates risk management by predicting, identifying, avoiding, transferring, spreading and controlling risks well, but also helps SMEs to enhance the capabilities of risk awareness and risk prevention.

2.10 CONCLUSION

While it is recognised worldwide that SMEs create jobs and economic wealth, they do so amid tremendous global competition. SMEs find it difficult to compete in the global market because of a shortage of resources. Despite this, SMEs still employ 95% of the world's working people. Having noted the importance of SMEs in the economy, governments in the world are supporting them in many ways. The South African government has setup agencies to assist in developing and growing SMEs. For example, the Small Enterprise Development Agency's (SEDA) mission is to develop, support and promote small enterprises throughout the country, ensuring their growth and sustainability in co–ordination and partnership with various role players (including global partners who make international best practices availabl e to local entrepreneurs) (http://www.seda.org.za/Pages/Seda-Welcome.aspx).

Just like larger businesses, SMEs have to be managed. Management involves planning, organising, leading and control. The greatest challenge for SMEs is to obtain funds from financial institutions. This is because most SMEs are start-ups and have no financial records. Furthermore, SMEs do not have tangible resources as security if they fail to pay back loans. To survive, grow and gain competitive advantage in a global market, SMEs can adopt e-business. E-business creates a 24/7 presence for the SME. Furthermore, to make informed decisions and gain competitive advantage, SMEs have adapted CI. CI is used to collect information from different sources, analyse it and disseminate it to decision makers. The CTMM, which is the second largest municipality in the Gauteng province of South Africa, is home to most of the SMEs in the country. In the next chapter CI and strategic decision making are discussed.

CHAPTER 3: COMPETITIVE INTELLIGENCE AND STRATEGIC DECISION MAKING

3.1 INTRODUCTION

Enterprises make decisions on a daily basis. These decisions range from operational to strategic decisions (Bose, 2008). Yap and Rashid (2011) explain that strategic decisions include the following:

- merger and acquisition
- strategic alliance and joint venture
- market entry or exit
- vertical integration
- capacity expansion
- new product or service development
- diversification
- divestment
- technology adoption
- globalisation.

The main reason why enterprises must continually make decisions is competition (Johns & Van Doren, 2009). According to Melo and Medeiros (2007), globalisation has led to competition being a constant concern for enterprises. Johns and Van Doren (2009) point out that analysing their competitors can help an enterprise to stay ahead in the marketplace. This is the role of CI.

Nasri (2011) and Bose (2008) argue that CI is an important aspect of strategic management because it serves as a first link in the chain of perceptions and actions that permit an enterprise to adapt to its environment. Moreover, CI provides knowledge of competitors and their marketing strategies, objectives, research activities, strengths and weaknesses. According to Garret (2011), although CI has traditionally been driven by marketing needs, CI gathering should be linked to an action the enterprise plans to take. Nasri (2011) states that the starting point of the CI process is to define the problems or issue in terms of key intelligence needs (KINs). KINs are decision-based strategic issues about which managers must be regularly informed to set and to implement strategy.

Obtaining sufficient CI is a critical factor in helping business managers to gain and maintain competitive advantage (Shih et al, 2008; Antia & Hesford, 2008; Muller, 2007b; Wright, Eid & Fleisher, 2009; Santos & Correia, 2010; Heppes & Du Toit, 2009). Louw and Venter (2008) state that competitive advantage can be achieved only when the enterprise's products or services are perceived as having value, as determined by customer acceptance. Furthermore, they point out that the key challenge is to sustain competitive advantage.

The purpose of this chapter is to review the existing literature on CI and to get a thorough understanding of CI. The most current literature will be used, although the older literature will not be ignored. This is because CI is a very dynamic topic and new literature is produced thick and fast. The older literature will be used to indicate the evolution of CI and to discuss concepts that are not been touched on in the latest literature.

The discussion starts with strategic management and shows where CI fits in with strategic management. The strategic management concept is broadly discussed and sub-concepts such as strategy, definitions, strategic planning, strategic analysis, environmental analysis and scanning, strategic decision making, the strategic decision process and the strategic management function are covered because they will be used as research variables in this research. In the remainder of this chapter CI, which is the main construct of this research, is discussed in terms of its definition, evolution and sub-concepts.

3.2 STRATEGIC MANAGEMENT

3.2.1 Strategy

History shows that strategy originates from the military (Kotler, Berger & Bickhoff, 2010; Karami, 2007; White, 2004; Mintzberg, Lampel, Quinn & Ghoshal, 2003). Karami (2007) says that the concept of strategy in business and management is analogous to that the concept as it is used in war. Each army had to come up with ways to deal with the opposition. Ignorance of the opposition was considered suicidal. Most enterprises have weaknesses and must overcome those weaknesses by implementing strategies that use their strengths or try to develop their weak capabilities to become stronger (Hitt, 2011). Sirmon and Hitt (2009) and Holcomb, Holmes and Connelly (2009) suggest that in order to achieve this, managers should deploy resources in ways that match the strategies implemented by the enterprise to positively influence performance. In addition, Sirmon, Hitt,

Arregle and Campbell (2010) emphasise that managers should simultaneously address both capability strengths and capability weaknesses in order to achieve a competitive advantage.

Businesses have to be prepared for any change in the environment and industry in which they operate, and they do this through the implementation of formulated strategies (Boyne & Walker, 2010). Boyne and Walker (2010) point out that in the private sector, strategy is often viewed as a way to defeat rivals in competitive markets. Also, strategy can be characterised as senior managers' response to the constraints and opportunities they face. Moreover, strategy (1) sets a direction for collective effort, (2) helps to focus that effort toward the desired goals, and (3) promotes consistency in managerial actions over time and across the parts of the enterprise. The better the fit that an enterprise achieves with external circumstances, the more likely it is to win financial and political support and thereby improve its performance (Meier, O'Toole, Boyne & Walker, 2006). Strategy is commonly accepted as a determinant of success and failure through a good strategy, a bad strategy or no strategy (Greckhamer, 2010). Likewise, Greckhamer and Mossholder (2011) state that strategy differentiates businesses.

For the sake of clarity in this study, strategy has to be defined. Although many researchers have attempted to define strategy (Hofer & Schendel, 1978; Andrews, 1987; Chandler, 1962), there is no single universally accepted definition for strategy. This is because various authors and managers use the term differently. For example, some include goals and objectives as part of strategy, while others draw a distinction between these (Mintzberg et al, 2003). In addition, the concept of strategy is not restricted to the business world – private life, sports and politics are also marked by strategies. In short, strategy is a means to an end (Thompson & Martin, 2005). According to Nonaka and Toyama (2007), strategy is about making choices based on an enterprise's goals, environment and resources. However, Thompson and Martin (2005) state that strategy is about issues and perspectives on problems. Strategy is also defined in terms of five Ps (Mintzberg et al, 2003). These are: plan; position; perspective; ploy; and pattern. These will be discussed in the subsection below. Thompson, Strickland and Gamble (2005) regard strategy as a game plan that refers to the choices a manager has to make about how to

- attract and meet customer needs
- compete successfully
- grow the enterprise
- manage each enterprise's architecture and develop the required dynamic capabilities

- achieve performance targets by implementing strategy successfully.

Mintzberg et al (2003) define strategy as the pattern or plan that integrates an enterprise's major goals, policies and actions into a cohesive whole. They (2003) state that a well-formulated strategy helps to marshal and allocate an enterprise's resources into a unique and viable position based on its relative internal competencies and shortcomings, the anticipated changes in the environment and the contingent moves of intelligent opponents. Thompson and Martin (2005) indicate that enterprises succeed if their strategies are appropriate for the circumstances they face; feasible in respect of their resources, skills and capabilities; and desirable for their important stakeholders (individuals and groups, both internal and external, which have a stake in and an influence over the business). They argue that strategy is fundamentally about a fit between the enterprise's resources and the markets it targets – plus the ability to sustain the fit over time and in changing circumstances. Mintzberg et al (2003) identify the following criteria for an effective strategy:

- clear decisive objectives
- maintaining the initiative
- concentration
- flexibility
- coordinated and committed leadership
- surprise
- security.

3.2.1.1 Five Ps of strategy

Mintzberg et al (2003) define strategy in terms of the following five Ps:

1) *Strategy as a plan*: some sort of consciously intended course of action or a guideline to deal with a situation. In terms of this definition, strategies have two essential characteristics:(1) they are made in advance of the actions to which they apply and (2) they are developed consciously and purposefully.
2) *Strategy as a position*: a means of locating an enterprise in what enterprise theorists like to call an "environment". This refers to matching the strategy and the environment.

3) *Strategy as a perspective*: Here the enterprise looks at the internal environment. It consists not only of a chosen position, but also of an ingrained way of perceiving the world. Strategy is based on what the enterprise emphasises or values the most.
4) *Strategy as a ploy*: This is a plan that is specifically designed to outwit the competitors. It takes us into the realm of direct competition, where threats, feints and various other manoeuvres are used to gain advantage. This places the process of strategy formulation in its most dynamic setting, which moves provokes countermoves.
5) *Strategy as a pattern:* in a stream of actions: Strategy is consistency in behaviour, whether or not intended. Plans may go unrealised, while patterns may appear without preconception.

While these definitions may be related to each other, none take precedence over the others. While some enterprises implement planned strategies, others do so by default. This is because many businesses do not write down their strategies and only later realise that they are where they are because of strategies. Some enterprises only focus on what their rivals are doing so that they can react. Therefore, all businesses have either formal or informal strategies.

3.2.2 Strategic management as a concept

Businesses operate in an environment that has many factors which affect them. For example, political, technological, social, and economical changes affect businesses (Bakar, Tufail, Yusof & Virgiyanti, 2011). Globalisation, deregulation, technological innovation and high customer expectations continually shape and reshape the global international business landscape (Rhodesa, Walshb & Loka, 2008). Globalisation has been facilitated by technology and businesses no longer compete only with local vendors but also with international ones (Lucas, 2010). In order to earn returns on their investment, enterprises must take risks and to reduce these risks, enterprises must strategise (Henkel, 2009).

Despite varied theoretical and methodological approaches, and an absence of any agreed-upon extant definition, strategic management scholars have a widely shared understanding (a common worldview) of what their field consists of (Nag, Hambrick & Chen, 2007). Kong (2008) points out that the strategic management concept includes a SWOT (strengths, weaknesses, opportunities and threats) analysis, industrial enterprise, resource-based view and core competency, knowledge-based view, balanced scorecard and intellectual capital viewed through the lens of strategic management development in the non-profit context.

Poister (2010) states that strategic management is concerned with ensuring that strategy is implemented effectively and encourages strategic learning, thinking and acting on an ongoing basis. Afsar (2011) says that strategic management entails allocating the right amount of resources to the different parts of the business so that those assigned to particular goals have what they need to meet their objectives. For this reason, Keupp, Palmie and Gassmann (2011) advise businesses to be innovative in their strategic management process as they adapt their strategies to changing market and customer demands, create value and growth, and achieve superior performance.

3.2.2.1 Definition of strategic management

Olse, West and Tse (2008) define strategic management as the ability of the management of the enterprise to properly align the enterprise with the forces that drive change in the environment in which the enterprise competes. Bryson (2011a) defines strategic management as the appropriate and reasonable integration of strategic planning and implementation across an enterprise (or other entity) in an ongoing way to enhance the fulfilment of its mission, meet mandates, continuously learn and sustain the creation of public value. Most importantly, after having analysed other authors' definitions, Nag et al (2007) conclude that "strategic management deals with (a) the major intended and emergent initiatives (b) taken by general managers on behalf of owners, (c) involving utilization of resources (d) to enhance the performance (e) of firms (f) in their external environments". They conclude that these six elements make up the implicit consensual definition of the field of strategic management.

Strategic management is concerned with the overall effectiveness and choice of direction within a dynamic, complex and ambiguous environment. Strategic management is not concerned with strategic planning only; managers have to ensure that strategies are implemented –that is, that strategies work in practice (Louw & Venter, 2008). Nag et al (2007) developed their definition of strategic management after they analysed the following definitions:

- Strategic management is a process that deals with the entrepreneurial work of the enterprise, with enterprise renewal and growth, and (more particularly) with developing and using the strategy to guide the enterprise's operations (Schendel & Hofer, 1979).
- Strategic management entails analysis of the internal and external environments of firms to maximise the utilisation of resources in relation to objectives (Bracker, 1980).

- Strategic management is the process whereby the general manager of a complex enterprise develops and uses a strategy to align the enterprise's competences with the opportunities and constraints in the environment (Jemison, 1981).
- Strategic management deals with the formulation aspects (policy) and the implementation aspects (enterprise) of calculated behaviour in new situations, and is the basis for future administration when circumstances reoccur (Van Cauwenbergh & Cool, 1982).
- Strategic management is enterprise making – to create and maintain systems of shared meanings that facilitate organised action (Smircich & Stubbart, 1985)
- Strategic management is essentially work associated with the term "entrepreneur" and his or her function of starting (given the infinite life of corporations) and renewing enterprises (Schendel & Cool, 1988).
- Strategic management is about the direction of enterprises, most often business firms. It includes the subjects that are of primary concern to senior management or to anyone who is seeking reasons for the success or failure of enterprises (Rumelt, Schendel &Teece, 1994).
- The strategic management field can be conceptualised as one centred on problems relating to the creation and sustainability of competitive advantage, or the pursuit of rents (Bowman, Singh & Thomas, 2002).
- Strategic management is concerned with the issues managers who run entire enterprises, or multifunctional units, face (Fredrickson, 1990).

Nag, Hambrick and Chen's (2007) definition of strategic management will be adopted for this study. This is because it covers most aspects related to strategic management. Furthermore, their definition is broader and simple to understand. Other authors agree that this definition is the best definition of strategic management (Meyer, 2009; Harrington & Ottenbacher, 2011).

3.2.2.2 Strategic management process

The economic future of the world is tied to the emergence of new technologies or the declining competitiveness of their industrial structure, which depends on the ability to mobilise knowledge assets and chart a new path forward. The response adopted by many businesses to the trend towards knowledge-intensive production has been an increased emphasis on strategic management (Wolfe, 2010). Many authors agree that strategic management is a process (Afsar, 2011; Kotler et al, 2010; Bryson, Berry & Yang, 2010; Meyer, 2009; Louw & Venter, 2008; Nerur, Rasheed & Natarajan, 2008; Nag et al, 2007;

Wheelen & Hunger, 2006; Fitzroy & Hulbert, 2005; Floyd, Roos, Jacobs & Kellermanns, 2005; White, 2004). According to Wheelen and Hunger (2006), Louw and Venter (2008) and Enz (2010), this process has four phases, namely:

1) strategic analysis (environmental scanning)
2) strategy formulation or development
3) strategy implementation
4) evaluation and control.

Fitzroy and Hulbert (2005) point out that enterprises undertake the development of strategy in a variety of ways; the process can be formal or informal, intuitive or analytical. Louw and Venter (2008) state that the strategic management process is a combination of the commitments, decisions and actions required for an enterprise to achieve strategic competitiveness and earn above-average returns. Hermel (2008) emphasises that management should bear in mind social, political, technological and industrial factors from analysis through to implementation and evaluation of the strategic management process. Wong, Chiang and McLeod (2009) emphasise the use of information technology during the strategic management process, while Robertson (2007) advises that enterprises must not ignore ethics during the strategic management process.

3.2.2.2.1 Strategic analysis

Strategic analysis tends to be intellectual exercises performed by strategic leaders, their staff and other senior professionals (Rainey, 2010). Moreover, it is carried out in controlled settings with a relatively small number of people. According to Louw and Venter (2008), strategic analysis involves an assessment of the current business situation in light of the conditions, trends, opportunities, challenges, capabilities and resources of the enterprise. Similarly, Harzing and Pinnington (2011) maintain that strategic analysis considers the external and internal environments of the enterprise (e.g. SWOT analysis). Wheelen and Hunger (2006) call this environmental scanning and describe it as the monitoring, evaluation and dissemination of information from the external and internal environments for key people within the corporation. Rainey (2010) says that exploring the external business context should precede the examination of the internal aspects. The reason for this is because great strengths and powerful competencies are meaningless in a business environment that no longer values their importance.

According to Louw and Venter (2008), from the outside–in perspective, the enterprise identifies opportunities in the external environment (social, economic, environmental, political, social and legal aspects); creatively defines its competitive industry; and then adapts its resources and dynamic capabilities to take advantage of the opportunities. The internal environment refers to the enterprise's strategic capability as determined by its resources and other capabilities (inside–out perspective) in creating customer value and building a competitive advantage. According to Morden (2007), the strategic analysis process is used to identify and understand the following variables:

- the internal operational and financial strengths and weaknesses of the enterprise
- the external or environmental constraints, opportunities and threats the enterprise faces
- the competitive environment within which the enterprise has to operate
- the political and institutional environments within which the enterprise has to operate
- the nature of the resources, capacity, leadership, willpower and capability that the enterprise possesses or that are needed so that the enterprise can achieve its objectives
- the sources of value addition available to the enterprise
- enterprise sources of comparative or competitive advantage
- enterprise sources of political advantage
- factors which are critical to the survival and success of the enterprise
- factors which will place limits or constraints on the potential achievements of the enterprise.

While it is important to know a business's strengths and weaknesses, it is very important to know the environment in which it operates. Businesses should not be surprised by the changes in the environment, but should prepare in advance for any changes (Fitzroy & Hulbert, 2005). Thus, strategic analyses help businesses to avoid surprises. Figure 3.1 below depicts internal and external environment analyses.

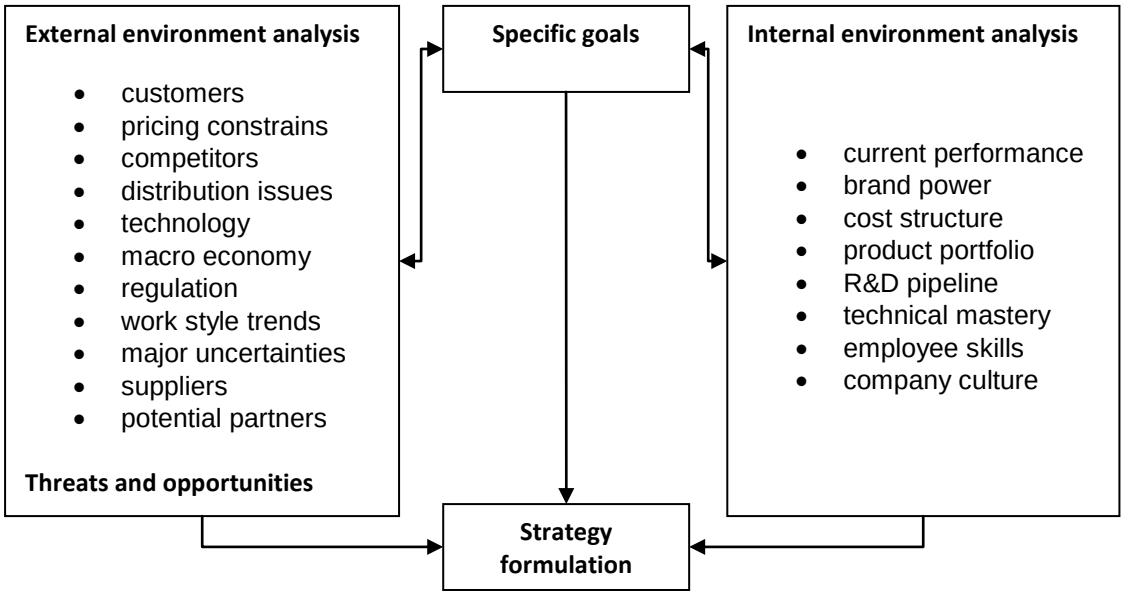

Figure 3.1: External and internal environment analyses (source: Harvard Business Essentials, 2005)

(a) External environment analysis

An external environment analysis involves ongoing effort to provide an understanding of the forces impinging on the business (Rainey, 2010). Moreover, in corporations with related business units, monitoring and assessing the business environment can be done at the corporate level or centralised for multiple business units. According to Wheelen and Hunger (2006), strategic managers should first be aware of the many variables within a corporation's societal and task environments. The societal environment includes general forces that do not directly touch on the short-term activities of the enterprise but can influence its long-term decisions. According to Louw and Venter (2008), these include political-legal, economic, socio-cultural, technological and ecological factors (hereafter referred to as PESTE factors). Figure 3.2 below shows the components of the macro-environment.

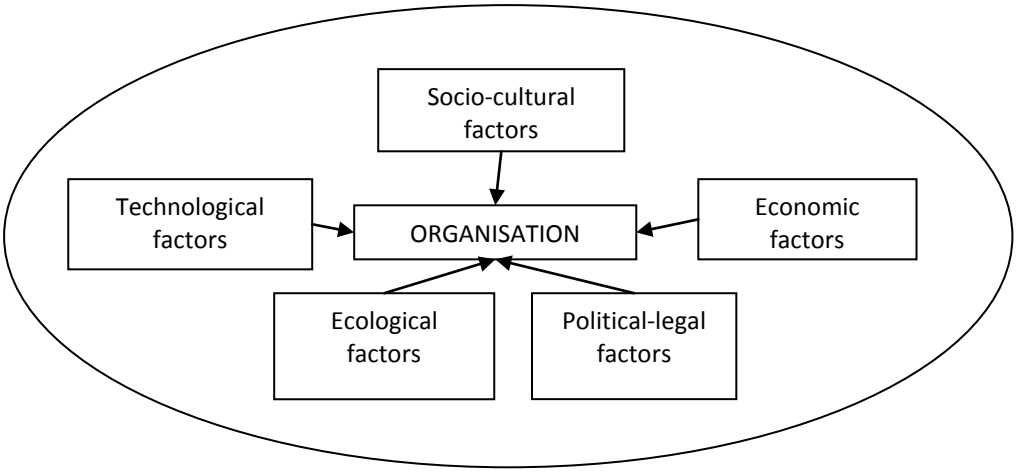

Figure 3.2: Components of the macro-environment (source: Louw & Venter, 2008)

1) *Socio-cultural factors:* The socio-cultural factors that affect an enterprise include the beliefs, values, attitudes, opinions and lifestyles of the people in the enterprise's external environment, as developed from cultural, ecological, demographic, religious, educational and ethnic conditioning (Louw & Venter, 2008; Wheelen & Hunger, 2006).
2) *Technological environment:* Changes in technology will affect how the enterprise runs its business. To avoid obsolescence and promote innovation, an enterprise should be aware of the technological changes that might influence its industry. Creative technological adaptations can suggest possibilities for new products, improvements in existing products, or manufacturing and marketing techniques (Louw & Venter, 2008). According to Wheelen and Hunger (2006) and Rainey (2010), the technological environment generates problem-solving inventions. In addition, Fitzroy and Hulbert (2005) and Harvard Business Essentials (2005) point out that technology is the major driver of the modern economy and has had the most impact on change in the 20th century.
3) *Economic environment:* The economic environment regulates the exchange of materials, money, energy and information (Wheelen & Hunger, 2006; Rainey, 2010). An analysis of the economic environment centres on changes in the macro-economy and their effects on business and consumers. Because consumption patterns are affected by the relative affluence of various market segments, in its strategic planning each enterprise should consider economic trends in the segments that affect its industry (Louw & Venter, 2008).

4) *Ecological environment:* The term “ecology” refers to the interaction between human beings and other living things, and the air, soil and water that support them. Enterprises are to reduce, reuse and recycle things such as water, soil, material, energy and plants. Failure to take good care of the ecological environment can lead to global warming, pollution and eventually recession (Louw & Venter, 2008). Businesses must be mindful of their ecological environment. They have to observe issues such as degradation, depletion, destruction and disruption (Rainey, 2010).

5) *Political-legal environment:* In this environment the legal and regulatory parameters within which enterprises have to operate are defined. These include fair-trade decisions, anti-trust laws, tax programmes, minimum wage legislation, pollution and pricing policies, administrative jawboning and many other actions aimed at protecting employees, consumers, the general public and the environment (Louw & Venter, 2008; Wheelen & Hunger, 2006). Enterprises must look at the conditions and trends of politics and at opportunities and threats. For example, they should know the benefits that the government offers businesses (Rainey, 2010).

(b) Industry analysis

Industry analysis refers to the in-depth examination of key factors within an enterprise’s task environment (Wheelen & Hunger, 2006). Large enterprises often think in terms of beating the competition as the first order of importance. They then think about what is necessary to create unique or sustainable advantages in the marketplace (Rainey, 2010). According to Louw and Venter (2008), in the industry environment the enterprise deploys a competitive or business strategy that is aimed at attaining sustainable competitive advantage. This is because an enterprise’s interaction with its competitors, its customers and other role players in the industry can have a profound impact on its relative competitive advantage and profitability, and that of other industry players. Porter (1980) has developed a five-forces model that determines profitability. This model is depicted in figure 3.3 below. At the heart of the industry are rivals and their competitive strategies which are linked to, for example, pricing or advertising. Porter (1980) states that it is important to look beyond one’s immediate competitors since there are other determinants of profitability. There may be competition from substitute products or services, or a potential for new entrants. Finally, it is important to appreciate that enterprises purchase from suppliers and sell to buyers. If they are powerful, they are in a position to bargain profits away through reduced margins by forcing either cost increases or price decreases.

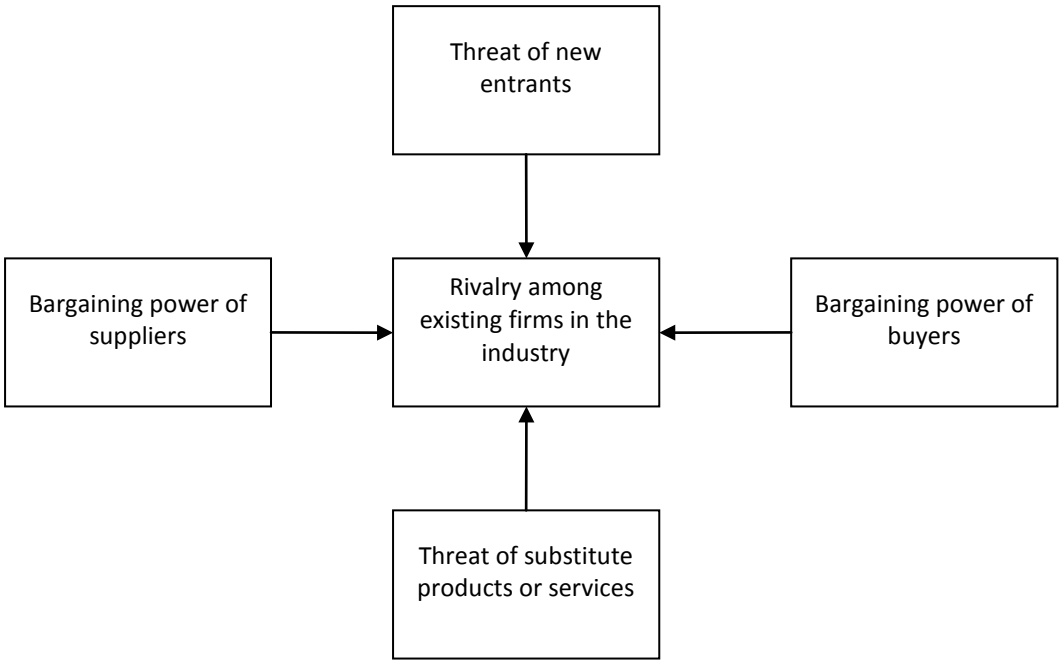

Figure 3.3: Porter's model determining industry profitability (source: Porter, 1980)

Thompson and Martin (2005) discuss the above five forces as follows:

1) *The threat of new entrants:* Where barriers to entry are high, new entrants are likely to be deterred and if they attempt entry, they are likely to provoke a quick reaction from existing competitors. Low barriers generally mean that responses will be slower, thus they offer more opportunities. The following factors create barriers: (1) economies of scale, (2) product differentiation, (3) capital requirements, (4) switching costs, (5) access to distribution channels and (6) cost advantages independent of scale.
2) *The bargaining power of suppliers:* The behaviour of suppliers, and their relative power, can squeeze industry profits. Equally, the ability of an enterprise to control its supplies by vertical integration (acquiring its suppliers) or long-term supply arrangements can be very beneficial.
3) *The bargaining power of buyers:* Any competitive action by buyers will act to depress industry profits, but specific arrangements with distributors or customers can be mutually beneficial. Vertical integration is again a possibility. The major supermarket grocery stores with multiple outlets nationwide are in a very strong bargaining position with most of their suppliers.
4) *The threat of product substitutes:* The existence or non-existence of close substitutes helps to determine the elasticity of demand for a product or service. This is price

sensitivity. If there are close substitutes, demand for a particular brand will increase or decrease as its price moves downwards or upwards relative to competitors. Price changes can be initiated by any enterprise, but other competitors will be affected and forced to react. If products are seen as close substitutes, they will be less price sensitive to competitor price changes.

5) *Rivalry among existing competitors:* Competition may take the form of price competition, advertising and promotion, innovation, or service during and after sale. Where competitive enterprises are mutually interdependent, retaliation is a key issue. Before deciding upon aggressive competitive actions, enterprises should attempt to predict how their competitors will react; when other enterprises are proactive, an enterprise should at least be defensive in order to protect its market share and profitability.

Porter's five-forces model is quoted by almost every strategic management author as the best method for analysing the industry in which businesses operate. Because businesses produce services and/or products to sell to their customers and raw materials for the production of these services or products are supplied by their suppliers, businesses should be mindful of the power of their customers and suppliers. Bad economic conditions such as recessions reduce the bargaining power of both suppliers and customers, resulting in the reduction of a business's profit. Certain industries have barriers to entry, which means that only few businesses qualify for entry (e.g. the flight industry has many barriers and only few businesses such as South African Airways and Mango operate in the industry in South Africa). Finally, substitute products or services can be big competition for an enterprise that specialises (e.g. margarine is a substitute for butter).

(c) Competitor analysis

According to Louw and Venter (2008), competitor analysis focuses on the interaction between the enterprise and its most important rivals. They state that understanding competitors and the bases for strategic actions involves obtaining information about competitors and understanding what competitors are likely to do or how they will likely react. While there are many sources of information on competition (such as suppliers, customers, industry publications, employees, industry experts and industry conferences), the internet provides the quickest means to obtain data on almost any subject (Wheelen & Hunger, 2006). Louw and Venter (2008) and Wheelen and Hunger (2006) point out that the basic input for competitor analysis comes from CI. In addition, they reveal that CI does not involve "spying" on competitors.

(d) Internal environment

Scanning and analysing the external environment for opportunities and threats is not enough to give an enterprise a competitive advantage (Wheelen & Hunger, 2006). Competitive advantage is expressed in terms of the ability to create relatively more economic value (Barney & Clark, 2007). After having tested the outer world for threats and opportunities, strategists must look inward and evaluate the strengths and weaknesses of the enterprise (Harvard Business Essentials, 2005). Furthermore, knowledge about the internal environment gives one a practical sense of what goals and strategies are most feasible and promising. According to Louw and Venter (2008), the objective of internal analysis is to identify the enterprise's strengths and weaknesses as a basis for competitive strategy. These authors indicate that many enterprises use the SWOT analysis as a means to identify opportunities and threats in the external environment and strength and weaknesses in the internal environment. When conducting an internal environment analysis, enterprises must identify their resources, capabilities and core competencies (Louw & Venter, 2008; Fitzroy & Hulbert, 2005; Rainey, 2010; Wheelen & Hunger, 2006).

3.2.2.2.2 Strategic development

Strategic formulation is a complex, vibrant element of the strategic management process (Rainey, 2010). It is concerned with developing a company's mission, objectives, strategies and policies. It begins with a situation analysis: the process of finding a strategic fit between external opportunities and internal strengths while working around external threats and internal weaknesses (Rainey, 2010; Wheelen & Hunger, 2006; Fitzroy & Hulbert, 2005; Karami, 2007; Mintzberg, 2007; Ungerer, Pretorius & Herholdt, 2007; Floyd et al, 2005). According to Louw and Venter (2008), strategic development involves understanding the underlying options for corporate-level, business-level and global strategy development in terms of directions and methods for development. They state that the key question is "Where are we going?" In addition, they argue that value innovation, ethical behaviour, corporate citizenship and sustainable development provide the basis for the development of strategy. They conclude that value innovation offers existing buyers greater net value than they are currently receiving and/or offers fundamentally new and significant net value for buyers that results in the creation of new markets.

3.2.2.2.3 Strategy implementation

Strategic management is not just about generating strategy; it is also about getting strategy implemented. For many enterprises, the challenge is implementation rather than generation (Fitzroy & Hulbert, 2005). Louw and Venter (2008) argue that successful strategy implementation is dependent on strategic leadership as the key driver of implementation and sound enterprise architecture. Wheelen and Hunger (2006) define strategy implementation as the sum total of the activities and choices required for the execution of a strategic plan. Moreover, it is the process whereby objectives, strategies and policies are put into action through the development of programmes, budgets and procedures. In support of this, Rainey (2010) states that strategic implementation focuses on converting business strategies into desired outcomes through systems, enterprise structures, programme design and development, resource allocations, and various other means and mechanisms. Morden (2007) states that the process of putting the enterprise's chosen strategies and plans into practice takes place within the internal context and constraints of the people, leadership, structure, resources, capabilities and culture of the enterprise. Poister (2010) suggests that enterprises can perform the following to ensure that strategy is translated into actions:

- identifying and monitoring appropriate performance measures to track progress in implementing strategic initiatives and achieving strategic goals and objectives
- assessing performance data in periodic strategy review sessions and making adjustments as needed to keep implementation on track
- aligning budgets with strategic priorities, allocating resources to fund new strategic initiatives and challenging operating units to show how their budget proposals advance strategy
- incorporating goals and objectives related to the strategic plan in individuals' performance planning and appraisal processes, and rewarding contributions to the advancement of strategy
- promoting the agency's vision and strategic plan internally to mobilise commitment throughout the enterprise
- communicating strategy to external stakeholders and soliciting their assistance in advancing strategy as needed
- emphasising consistency with strategy in proposals, requests and other external communications to build credibility and support on the part of governing bodies, oversight agencies and other key constituencies

3.2.2.3 Strategic planning process

Whenever enterprises operate in a competitive market, they will find themselves under pressure to formulate and implement a value-creating strategy. This can be done through the strategic planning process (Harzing & Pinnington, 2011). Value-creating strategies provide an enterprise with a sustainable competitive advantage. Competitive advantage occurs when an enterprise implements a value-creating strategy which other enterprises cannot duplicate or find it too costly to imitate (Hanson, Dowling, Hitt, Ireland & Hoskisson, 2002). Strategic planning has been in vogue more than 40 years. It implies both the crafting of the strategic moves and the implementation of the required actions. It focuses on determining the best course of action and transforming the enterprise into a more effective and successful entity through sustained efforts, commitments, contributions and leadership (Rainey, 2010). According to Poister (2010) the purpose of strategic planning is to promote strategic thinking, acting and learning on an ongoing basis. Thus, strategic planning involves a "big picture" approach that blends futuristic thinking, objective analysis and subjective evaluation of values, goals and priorities to chart future direction and courses of action to ensure an enterprise's vitality, effectiveness and ability to add public value. According to Poister (2010), if planning is to be done well in the public sector, strategy has to be formulated by top executives and line managers (with planners in support roles); the analysis of strategic issues must be based on extensive intelligence gathering (including "soft" data rather than intensive number crunching); and strategy formulation should be influenced by experience, intuition, inspiration (and even hunches) and a keen sense of political feasibility. Rainey (2010) concludes that the strategic planning and strategic management processes are a means to an end and not an end in itself.

3.2.2.3.1 Strategic planning model

This model provides two ways to get from the business mission to strategy formulation. The first and most direct way is through a step-wise elaboration of the mission via enterprise goals (as depicted at the left side of the figure 3.4 below). Vertical steering, whether or not accompanied with strict planning methods, dominates here. The second, more indirect way is through interaction with the policy principles of other actors (as depicted at the right side of the figure). Discussion about values, ambitions and objectives dominates here. As for the strategy formulation of the social landlords in this research, the second way seems to prevail. The "translation" of portfolio policies into concrete investments hardly takes place through vertical steering and through the application of systematic planning methods as

described above, but more through the mutual transfer of norms and values between equal parties (Nieboer, 2011). The strategic planning process model is shown in figure 3.4.

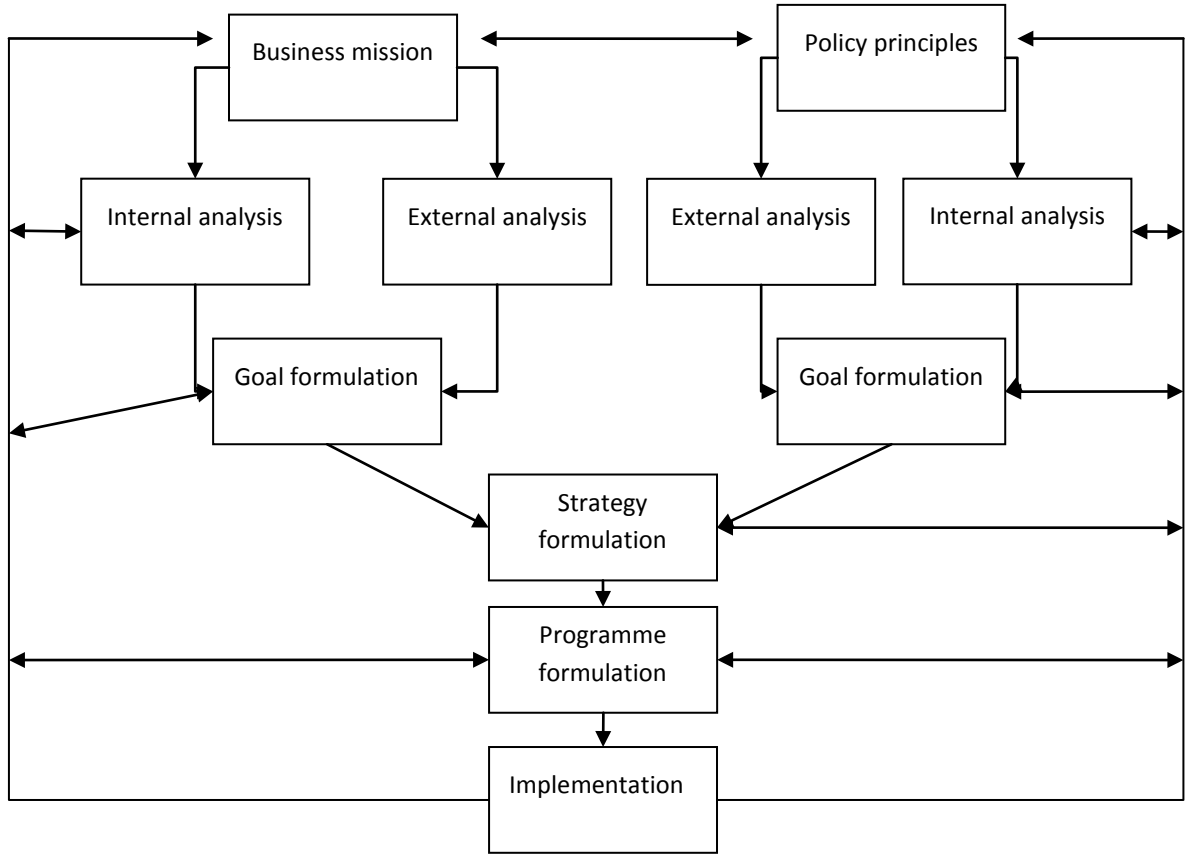

Figure 3.4: The strategic planning process model (source: Nieboer, 2011)

3.2.2.3.2 Need for planning

According to Modern (2007), any enterprise has to plan for the future. Moreover, the enterprise's management have to attempt to anticipate the future environments within which the enterprise will operate because planning for tomorrow is as important as making decisions for today. Morden outlines two reasons for this:

1) Making plans and forecasts, and their eventual review, forces managers to think ahead. The enterprise should know some of the likely consequences of both its existing commitments and the future plans it is implementing. And it ought to be able to describe some of the most probable scenarios that it is likely to face over the next few years.

2) Making plans and forecasts involves systematic thought and analysis. This intellectual process may be of value in itself, particularly in enterprises that have a tendency to “be long on action but short on thought”.

While most SMEs do not have formal written plans, all businesses (whether small or large) have plans. They have goals and strategies to help them achieve set goals. Although planning in SMEs is done by the owner-manager, large businesses also have formal planning procedures. As a result of a lack of human resources and finance in SMEs, owner-managers perform almost all the management duties (including planning). However, large enterprises have sufficient resources to do their planning formally. Today is the tomorrow of yesterday and most of today’s results were planned yesterday. Therefore it is important for businesses to plan for the future.

3.2.2.3.3 Strategic decision making

Businesses make decisions on a daily basis so that they can adapt to the changes in the environments in which they operate. By taking strategic, long-term decisions, management defines the conditions for the enterprise’s performance in subsequent years (Henkel, 2009). Afsar (2011) states that a good strategic decision requires an executor to implement. Pavic (2011) define decision making as a process that characterises every human being and every enterprise. Pavic (2011) advises that the decision making process should be traced carefully and managerial decision making should be given a more prominent position in management theory and practice.

Strategic decision making is a central managerial activity in all types of businesses: large and small, for profit and not for profit, and private and public (Elbanna & Child, 2007b). In all types of enterprises, managers have to cope with difficult and complex situations in which they must make major decisions(such as entering new markets, developing new products, or acquiring or divesting businesses) so that the enterprise can function, adapt, progress, take advantage of opportunities and overcome threats (Elbanna & Child, 2007). According to Mueller, Mone and Barker (2007), successful strategic decision making enables an enterprise to maintain competitive postures, align internal operations with external environments, and survive threats and challenges. Conversely – because of its magnitude – a single, poorly made strategic decision can lead to the demise of an enterprise and result in corporate embarrassment, steep economic losses for stakeholders or bankruptcy.

3.2.2.3.4 Strategic decision-making process

Strategic decision making is a selection process where one of two or more possible solutions is chosen to reach a desired goal (Pavic, 2011). Simon (1977) describes the process of decision making as comprising four steps (phases):

1) the intelligence phase (searching for conditions in the environment that call for decisions; problem identification and description)
2) the design phase (problem analysis; inventing, developing and analysing possible courses of action)
3) the choice phase (selecting a course of action from the ones that are available)
4) the implementation phase (implementing the selected course of action).

Although businesses might not be conscious of it, decision making is a process. Changes in the business environment call for decisions to be made. For example, the introduction of the National Credit Act 34 of 2005 in South Africa called for credit providers to make decisions to ensure that their businesses abide by it. After realising that there has been a change in the environment, businesses must analyse the change and list possible solutions. Thereafter, they must choose the solution that will best solve the problem. Decision making ends when the chosen solution is implemented.

3.2.2.3.5 Strategic decision-making competencies

Competence is a holistic concept, which consists of technical, management, people, attitude, values and mental skills components. It is the combination of all of these components that forms the basis for a strategist's behaviour and performance (Steptoe-Warren, Howat & Hume, 2011). Moreover, having the strategic capabilities/competencies to encourage staff creates common values such as trust, honesty and creativity and also an environment which allows for the development of both the individual and the enterprise in order to encourage commitment to the strategic direction of the enterprise. Garavan and McGuire (2001) identify six clusters of competencies: (1) technical competencies; (2) business competencies; (3) knowledge management competencies; (4) leadership competencies; (5) social competencies; and (6) intrapersonal competencies.

3.3 COMPETITIVE INTELLIGENCE

3.3.1 Definition of competitive intelligence

Although there are many definitions of CI in contemporary practice and scholarship, no single one has achieved worldwide acceptance. Most of the definitions that have emerged over the years involved nothing more than semantic changes in language and emphasis (Fleisher & Wright, 2009; Brody, 2008). Brody (2008) concludes that because CI is a process which is set in situations that are dynamic and in which the players are moving forward in a constantly changing business environment, the variety of definitions may be a reflection of that process of constant change. Furthermore, researchers use many terms interchangeably for CI. These include “market intelligence”, “knowledge management”, “market research”, “economic intelligence” and “territorial intelligence” (Fleisher, 2008; Muller, 2007b; Kruger, 2010; Bose, 2008; Magrinho, Franco & Silva, 2011; Lonnqvist & Pirttimaki, 2006; Buchda, 2007; Liu & Wang, 2008; Trim & Lee, 2007; Dishman & Calof, 2008; Qiu, 2008; Wright & Calof, 2006). The following are some of the definitions of CI:

- It is an activity of the strategic management of information that aims to allow decision-makers to forestall the market trends and moves of competitors, identify and evaluate threats and opportunities that emerge in the business environment, and circumscribe actions of attack or defence that are more appropriate to the development strategy of the enterprise (Magrinho et al, 2011).
- It is a systematic, targeted, timely and ethical effort to collect, synthesise and analyse competition, markets and the external environment in order to produce actionable insights for decision-makers (Fleisher, 2008).
- CI is an ongoing, systematic evaluation of the external environment for opportunities, threats and developments that could have an impact on the enterprise and influence reactive decision-making (Strauss & Du Toit, 2010).
- CI is the process whereby enterprises gather information on competitors and the competitive environment, ideally using this in their decision-making and planning processes with the goal of adjusting activities to improve performance (Wright et al, 2009).
- CI is the collection of information from competitors, customers, suppliers, technologies, environments and potential business relationships (Calof & Wright, 2008).

- CI is the purposeful and coordinated monitoring of competition within a specific marketplace; it plays an important role in knowledge management and the process of enterprise decision-making (Agarwal, 2006).
- CI is the process of monitoring the competitive environment to help in making informed decisions about marketing, research and development and about long-term strategies (Liu & Oppenheim, 2006).
- CI is a process that uses legal and ethical means to discover, develop and deliver the relevant intelligence needed by decision-makers in a timely manner (Pietersen, 2006).
- CI is any type of activity aimed at monitoring competitors(potential and current) and gathering information of all types (including about human resource practices, sales and marketing, research and development and general strategy) (Tarraf & Molz, 2006).
- CI is the transformation of raw information about the competitive external environment into intelligence to support business decisions (Hughes, 2005).

For the purposes of this study, Brody's definition (2008) will be adopted because it is broader and simple. Brody (2008) defines CI as "*the process by which enterprises gather actionable information about competitors and the competitive environment and, ideally, apply it to their planning processes and decision-making in order to improve their enterprise's performance*".

3.3.2 Evolution of competitive intelligence

Since the end of the Cold War, CI – once widely used in the military environment – has rapidly infiltrated into businesses (Deng & Luo, 2010). Techniques that have been used by intelligence agents and ancient military strategists to serve past governments and economies and ancient kingdoms and empires are valuable sources for providing a more retrospective overview of CI as a discipline (Juhari & Stephens, 2006).

CI is an amalgam of disciplines. It evolved from economics, marketing, military theory, information science and strategic management (Juhari & Stephens, 2006). According to Juhari and Stephens (2006), the very idea of CI and its terminology(as incidences in history throughout the world prove) has been around far longer than when it was first considered a must-do practice by American enterprises that wished to succeed in their chosen commercial arena or in their inter-government and intra-government relations. These authors further reveal that the technology explosion of the 1990s probably stimulated the notion of CI

being something entirely new or even revolutionary. Moreover, CI then became a term that encapsulated all activities which involved monitoring and acting upon information in order to achieve competitive sustainability.

While CI is a relatively new business discipline, it is evolving in complexity and importance to keep pace with rapid business development (Heppes & Du Toit, 2009). After being isolated from the rest of the world due to apartheid, South African enterprises have realised that in order to survive (let alone prosper) in a changed competitive environment, they will have to take a new look at the environment. De Pelsmacker et al (2005) state that enterprises that formally practice CI are growing in numbers. In addition, CI is especially strong in the banking sector, the information technology sector, the telecommunications sector and the electric supply sector.

South African enterprises have been too inward looking, which has made them vulnerable to unforeseen threats (Adidam et al, 2009). According to Muller (2005a) CI really took root in South Africa in the mid-1990s and early-2000s. Muller also says that since then, many enterprises and institutions in all industries have developed sophisticated CI capabilities and are moving beyond the implementation and refining phases into recognising CI for its true purpose. She concludes that the purpose of CI is to constant look for opportunities and threats in order to enhance enterprise knowledge and promote innovation and constant input in strategic decision making.

CI in South Africa emerged from the business sector. It is increasing substantially but is not yet at a level of that in countries such as the USA, Australia, Japan, France and Canada (Heppes & Du Toit, 2009). According to Heppes and Du Toit (2009), in order for the CI function to evolve from “providing just the facts” (reactive) to being “a key component of enterprise strategy” (proactive), the following steps are required:

1) The CI function should be appropriately resourced. This includes employing at least one additional full-time employee and using CI software to enable the required paradigm shift.
2) The CI function should develop and deliver information on trends and implications in respect of KINs through the application of the resources and analytical skills.
3) The CI function should develop and deliver early warning signals, by mapping from the KINs high-risk areas, building and monitoring indicators, and issuing alerts as such risks unfold.

Although CI is widely practiced in developed countries, its adoption has been slow in developing countries (Muller, 2005a). This is because most developing countries are not economically empowered. Most enterprises in developing countries do not have the resources to setup an independent or formalised CI section (Heppes & Du Toit, 2009). In South Africa, CI is widely practiced in the telecommunications and banking industries (Muller, 2005b). Moreover, banks have the finances to setup a CI section, while telecommunications businesses have the technology to facilitate CI. However, enterprises that are adopting CI are growing (Adidam et al, 2009; Heppes & Du Toit, 2009; Muller, 2005b).

3.3.3 Competitive intelligence needs

There seems to be a growing need for CI because enterprises are continually changing their services and marketing messages to stay successful. In an unpredictable economy, corporations turn to CI to build and maintain a competitive edge (Johns & Van Doren, 2010). Nasri (2011) points out that the basic starting point of the CI process is to define the problem or issue in terms of KINs. In addition, Herring (2010) emphasises that the most critical activity in the overall intelligence process is the cogent identification of the enterprise's real intelligence needs. When properly done, such a needs identification process provides the CI operation not only with its most important tasks, but also gives it the ability to continuously adapt to the enterprise's changing needs and competitive environment.

3.3.3.1 Sources of intelligence needs

Herring (2010) identifies the following three sources of intelligence needs:

1) *Senior management and other key decision-makers:* Senior managers and those who have been assigned leadership responsibilities are entrusted with running the enterprise and making critical business decisions for the enterprise. It is only common sense that the CI needs of such decision-makers and planners are important to the enterprise's business success and competitive survival. Furthermore, these business decisions and plans become the objectives and priorities that middle-level managers and individual business units must address in their areas of responsibility. Unless the enterprise's management structure and operations are completely dysfunctional, senior managers and business unit/functional managers will be working on similar goals and priorities – and

consequently, effective CI operations that are focused on the senior management's key intelligence topics (KITs) will produce intelligence that should benefit both.

2) *Existing management processes and procedures, such as programme and budget reviews:* The most common of these is an enterprise's programme or business review process. Almost all enterprises periodically examine their existing business performance or new product development programmes. In most cases, the basic performance measure is some pre-agreed upon growth or revenue figure that is often used to compare(in some fashion)the enterprise's results to that of the competition (e.g. relative market share or the number of head-to-head contract wins/losses). Similarly, enterprises that are dependent upon developing new technologies and products use some form of research and development planning process such as stage-gate reviews or technology roadmaps. In both cases, the relative position and performance of competitors' technology development are required so that management can make their decision about going forward on their own research and development programmes. The quality and accuracy of the competitive technology intelligence (CTI) in such management processes is critical to the long-term success of the enterprise's new product and future sales and marketing activities.
3) *The CI function itself:* Irrespective of the CI activity involved (whether it is a five-forces industry assessment, a competitive technology forecast or some recent discovery of a totally new competitor at a trade show), the integrity and credibility of the CI unit is the critical element in the identification of the real intelligence needs of the enterprise. Unfortunately, most CI professionals who complain when their advice and suggested KITs are ignored do not have the credibility or professional reputation to earn their management's trust. Experience has taught that too few Directors of CI programmes possess leadership traits. Those who do truly are CI leaders.

Businesses exist to satisfy customers' needs. Similarly, CI is implemented to fulfil business need. Decision-makers need advice to make decisions and CI is one of the sources of advice. CI needs must be written down so that whoever gathers the CI will only gather relevant information. As indicated above, there are three sources of CI needs. Most of these sources of CI needs are decision-makers at different levels of the enterprise.

3.3.4 Objectives of competitive intelligence

CI's main aim is to provide an enterprise with a competitive advantage by providing input to a competitive strategy. CI is a way to alert enterprises constantly of changes in the competitive environment (Muller, 2005a). Researchers have identified the following objectives of CI (Peltoniemi & Vuori, 2008; Cucui, 2009; Wright et al, 2009):

1) enhancing the enterprise's competitiveness
2) predicting, with a high level of trust, the business environment's evolutions, competitors' actions, customers' requirements and even influences generated by political change
3) providing better and better support for the strategic decision-making process
4) revealing opportunities and threats by surveying weak signals and early warnings
5) processing and combining data and information to produce knowledge and insights on competitors
6) satisfying the information needs of decision-making and problem solving, and decreasing reaction time
7) devising marketing strategies

3.3.5 Sources of competitive intelligence

Even if CI is easily accessible, easily accessible information is less likely to contribute to competitive advantage than information that is unique and unavailable to competitors (Lewis, 2006). Hesford (2008) emphasises that what you cannot do is to take your binoculars and look into your competitor's plant in the middle of the night or to pay a competitor's employee to funnel internal documents or specifications to you. Hesford points out that a business must observe its ethics policy when gathering CI information.

Yap and Rashid (2011) group information sources into two categories(external and internal) and subdivide them into personal and impersonal sources. External sources are obtained outside the enterprise, while internal sources are generated within the enterprise; personal sources communicate information personally to managers, while impersonal sources communicate information to broad audiences or through formalised group communication activities. Examples of these categories are given below.

- *external personal sources:* customers; competitors; business and professional associates who include executives of other enterprises, bankers, lawyers, financial analysts, academics and consultants; and government officials
- *external impersonal sources:* newspapers and periodicals; government publications; the internet and extranets; publications and reports of industry and trade associations; and conferences, business trips and trade shows
- *internal personal sources:* superior and board members, peer colleagues and subordinates
- *internal impersonal sources:* internal memoranda and circulars; internal reports and research studies; enterprise libraries; electronic information services that include information systems and intranets

Melo and Medeiros (2007) divide CI sources into two categories:

1) *published information:* articles; books; theses; papers presented at congresses and similar presentations; periodicals; government documents; speeches; analytical reports; government archives and those of agency regulations, registers of patents, etc.
2) *unpublished information:* sales people; engineering personnel; distribution channels; suppliers; advertising agencies; professional meetings; enterprises specialising in CI, reverse engineering, etc.

Johns and Van Doren (2010) identify four sources of CI. These are shown in figure 3.5 and are discussed below.

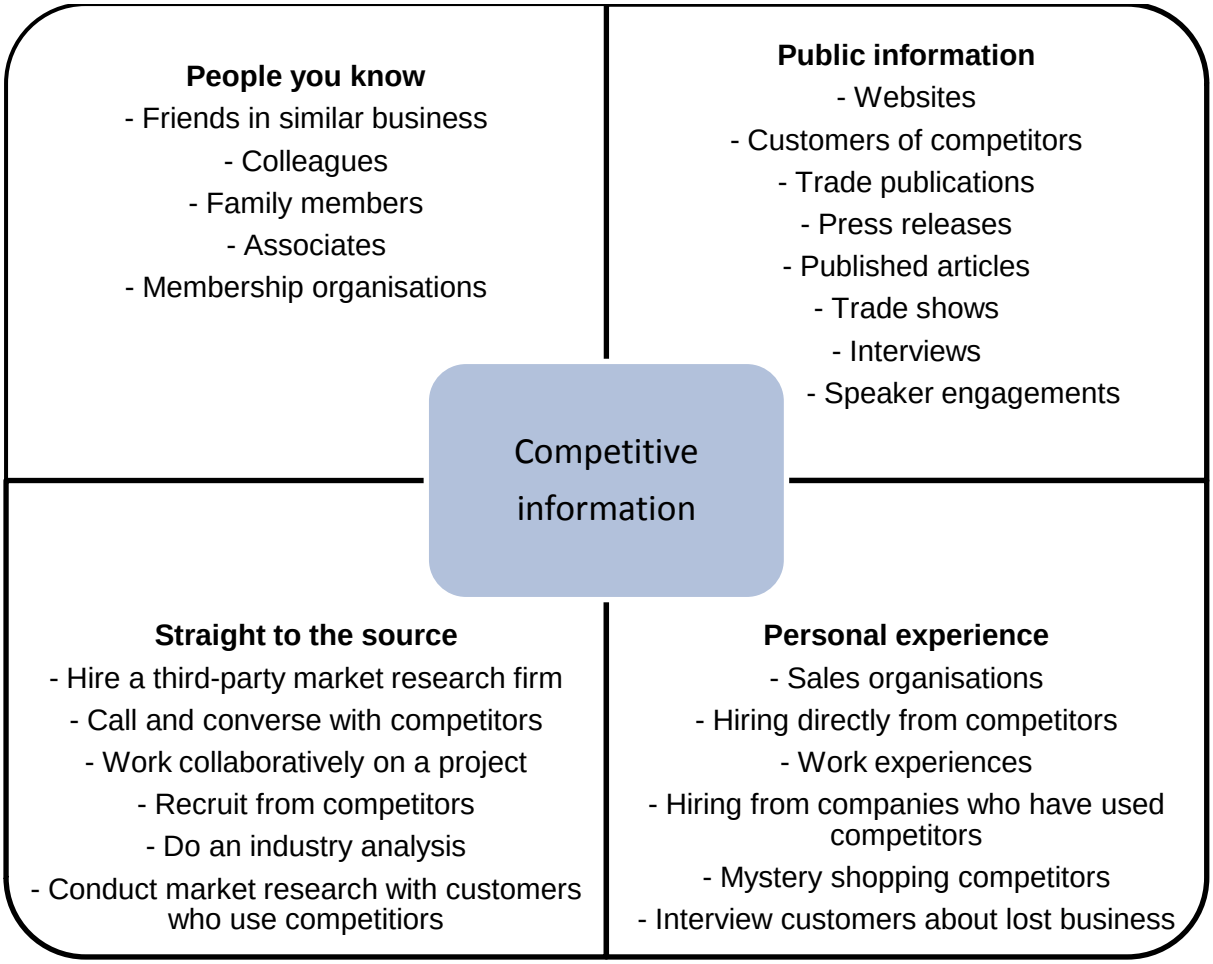

Figure 3.5: Sources of competitive intelligence (source: Johns & Van Doren, 2010)

1) *People you know:* Enterprises can get information from individuals who are known by the employees of the enterprises. These are friends in similar businesses, colleagues, associates and membership organisations.
2) *Straight from the source:* Although enterprises hide certain information from the external business environment, they make certain types of information available (e.g. vision and mission). Enterprises get information from their competitors by hiring third-party market research enterprises, calling and conversing with their competitors, working together on a project, recruiting from their competitors, conducting an industry analysis and conducting market research among the customers of competitors.
3) *Public information:* Certain information about the competitor is publicly available from different sources. These sources are websites, customers of competitors, trade publications, press releases, published articles, trade shows, interviews and speaker engagements.

4) *Personal experience:* The best way to get this information is to have first-hand experience. The enterprise can hire people who have previously worked at competitors, doing mystery shopping about the competitor and interviewing customers about lost business.

Other researchers have identified the following sources of CI (Wright et al, 2009; Hesford, 2008): money facts, the internet, customer feedback, trade bodies, external consultants, customer databases, enterprise reports, customer application forms, interviews and surveys, executive speeches, advertisements, government information, journals and newspapers.

3.3.6 Competitive intelligence process

Despite many researchers listing only five steps or stages of the CI process (McGonagle, 2007; Cucui, 2009; Melo & Mdeiros, 2007; Bose, 2008; Adidam et al, 2009; Heppes & Du Toit, 2009), Saayman et al (2008) list and discuss six steps of the CI process. Botha and Boon (2008) identify seven steps of the CI process, which are depicted in figure 3.6 below and briefly discussed thereafter.

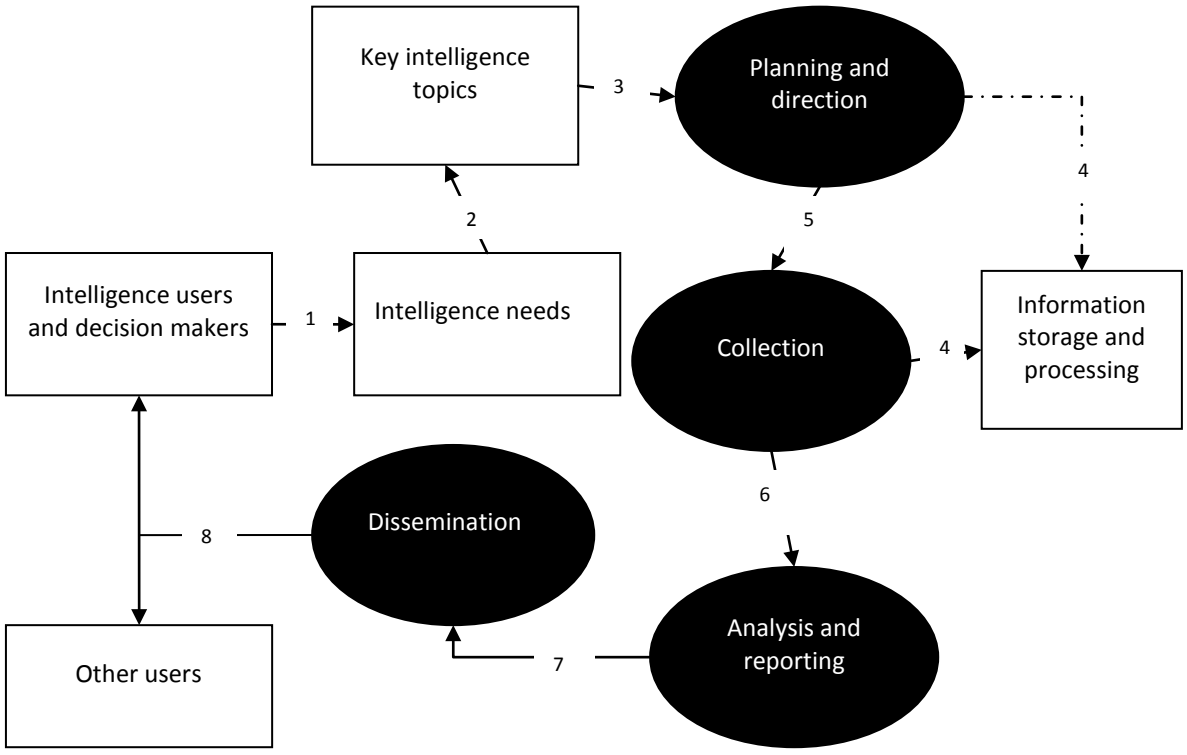

Figure 3.6: The competitive intelligence process (source: Botha & Boon, 2008)

1) *Intelligence needs and determining key intelligence topics:* Ascertaining the intelligence needs of decision-makers and narrowing down their intelligence needs to key intelligence topics.
2) *Planning and direction:* Planning and giving direction to further intelligence activities in order to fulfil the intelligence needs of decision-makers.
3) *Collection:* Collecting information that is available in open sources and by making use of human intelligence.
4) *Information processing:* Enterprise, systematisation, and implementing and maintaining a mechanism for the capturing and storage of information.
5) *Analysis:* Analysing the collected information to ascertain the implications thereof for the decision-maker. The analysis phase transforms information into intelligence by answering the question "so what?"
6) *Dissemination:* Sharing and distributing the intelligence with the decision-maker.
7) *Intelligence users and decision-makers:* The dissemination of intelligence will lead to the identification of new intelligence needs by the users of intelligence and decision-makers, and the intelligence cycle or process will be activated again.

Botha and Boon (2008) identify two elements of the CI process: (1) intelligence needs and key intelligence topics, and (2) intelligence users and decision-makers. According to these authors, the needs of CI must first be defined before one can embark on the CI process. This ensures that CI professionals acquire the relevant intelligence to cover all intelligence. While most authors assume that everyone knows who the recipients of disseminated intelligence are, Botha and Boon (2008) make it clear that intelligence is disseminated to intelligence users and decision-makers.

3.3.6.1 Analytical tools for the competitive intelligence process

Wright et al (2009) suggest the following analytical tools for the CI process: various mechanisms; spread sheets and filtering databases; PESTE factors and SWOT analyses; teamwork and brainstorming; valuation techniques; financial ratios; and statistical programs.

3.3.6.2 Dissemination methods

Once the information has been analysed, it must be disseminated to whoever needs it for decision making. There are several dissemination methods from which enterprises can choose. Wright et al (2009) suggest the following dissemination tools for the CI process: briefings and face-to-face meetings, e-mails, intranets, written reports, daily flashes, newsletters, as per request methods and conferences.

3.3.6.3 Differences in the competitive intelligence processes of developed and emerging markets

A study that was conducted by Adidam et al (2009) revealed that there is a difference in the CI processes of developed markets and emerging markets. They found the following differences:

- The CI market in developed countries is much more matured than in emerging countries.
- The government plays a critical and supportive role in the development of CI in the developed markets compared to the emerging markets where the government's involvement with businesses slows down the CI process.
- The infrastructure in emerging markets is still being developed; whereas infrastructure and technology in developed markets is well established.
- The size of the CI unit and the time spent on CI-related activities tend to differ between developed and emerging markets.
- The techniques used for the CI process are relatively advanced in the developed markets compared to those in the emerging markets.

Adidam et al (2009) suggest the following steps for conducting a cross-cultural CI programme:

1) *Define the requirements:* Be aware of the cultural, social and economic differences between the home country and the host country.
2) *Assign a cultural leader:* Select an individual who knows about different cultures and is fluent in the country's local language.

3) *Organise cross-cultural CI structures:* Identify staff with the consideration of their cultural backgrounds. Also, develop a common language and an ethical framework for the cross-cultural CI project.
4) *Collect information and analyse it:* Learn as many things as possible about the industry in the foreign country, keeping in mind the cultural context in which such information was collected. The analysis of the information should also be conducted by taking into consideration the cultural constraints of sharing intelligence.
5) *Disseminate intelligence:* The end game of CI is not collecting and analysing information, but the real-time dissemination of intelligence to the decision-maker. In a cross-cultural CI project, the analyst must clearly educate the decision-maker about the cultural challenges of converting information into intelligence.

While the above steps are almost the same as the traditional CI process, there is a slight difference in comparing the CI processes of developed and emerging/developing countries (Adidam et al, 2009:676). Moreover, in Adidam et al's CI process, cultural leaders and cross-cultural CI structures are introduced. This is to ensure that the rules of the different cultures are observed when collecting CI. In addition, developing countries tend to put more emphasis on cultural issues than developed countries. Moreover, culture plays a crucial role in businesses in developing countries. As a result, researchers advise businesses to observe the ethics, behaviours and morals of a culture when making decisions.

3.3.7 Types of competitive intelligence

Enterprises gather different types of CI about their competitors (Hesford, 2008). Wright et al (2009) and Yap and Rashid (2011) identify the following intelligence which is gathered during the CI process: information about market and market share, competitors, and customer and consumer behaviour, products and sales; economic information; government data (rules and regulations); financial data; political information; technological data; information about crime and fraud; information about suppliers; socio-cultural information; information about human resources; global information; and information about an enterprise.

3.3.8 Benefits of competitive intelligence

CI benefits all types of enterprises, including profit and non-profit enterprises, associations and government (Liu & Oppenheim, 2006). According to Hesford (2008), CI is a process that can reduce information uncertainty to such an extent that decision-makers can make better decisions regarding cost reductions, design and process improvements, new product

introductions, product mix choices, etc. In addition, Muller (2007b) points out that CI fulfils a strategic role in enterprises by providing quality information, increasing general awareness, and improving threat and opportunity identification. Pranjic (2011) lists the following benefits of CI:

- detecting profitable market niches
- detecting competitors' strengths and weaknesses
- detecting warning signals in case of political instability
- detecting recession signals
- detecting new administrative and legal possibilities and limitations
- detecting new or potential competition
- enhancing the reliability of prognoses on leading forces in a business environment
- decoding competitors' intentions
- improving the enterprise's ability to anticipate surprises
- improving managers' analytical skills
- faster and more targeted responses to market changes or reduced reaction time
- identifying critical points of vulnerability
- early warning of competitive threats
- identifying blind spots
- synchronising information from all providers
- conducting accurate market-place assessments for tactical moves
- improving quality in strategic and tactical planning
- an increased understanding of customers' current and future need
- increasing enterprise learning and sharing of knowledge.

The benefits of obtaining CI for businesses far outweigh the costs. The four major benefits are as follows (Johns & Van Doren, 2010):

1) *Differentiation:* During poor economic times, excellent CI can be the differentiating factor in the marketplace. When an enterprise is able to accurately assess the competition by gathering competitive information, it is in a better position to build differentiation for the enterprise. It may be that one enterprise in the competitive set is the low-cost provider and the other enterprise has a superior process for providing the service. An enterprise can use this information to accurately assess questions such as: What does the competition provide? How can the enterprise set itself apart

from the competition? Once an enterprise has this information, it can put in place an action plan to enable the enterprise to gain a competitive advantage by having a distinct point of differentiation.

2) *Cohesive marketing communication plans:* Some enterprises scramble to put out a piece of communication in response to strictly anecdotal information about a competitor. This scattered approach can result in an enterprise with a very unfocused and confusing marketing message for the customer. This makes it difficult for the customer to understand just what the enterprise is and what it does, because the enterprise has diluted its brand image and identity. The results of such a scattered approach can be devastating. Customers become unsure about the enterprise's focus and ability to get the job done. Although customers understand that it is impossible for an enterprise to be all things to all people, the marketing of a services enterprise has a cumulative effect over time. An enterprise has to decide if the feedback it gives contains a clear and consistent message or a hodgepodge of information that has no clear meaning to the customer. What the enterprise knows about the competition will provide the information that is needed to build a consistent and cohesive marketing message. As the competition changes, the service enterprise should be able to make appropriate changes to its message based on the needs of the marketplace.
3) *Pre-selling an idea to the target audience:* Knowing competitive strategies and tactics will enable a service enterprise to pre-sell to the target audience how and why they should do business with it instead of the competition. *Building credibility with your customer: Whe*n a service enterprise has a robust CI system in place, it is in a better position to field any questions the customer may have about what is going on in the market and with the competition. The a*bility to answer questions intelligently* builds instant credibility with the customer, demonstrating to the customer that the enterprise will provide significant value to its new customer that is above and beyond the signed service agreement. Credibility and relationships are two strong reasons why an enterprise chooses to do business with a service enterprise. Long-term relationships with the customer often begin with the sales call.

Businesses need both tangible and intangible benefits when investing in resources or systems. They want to know why they must spend their money on CI. If the benefits of a resource or system outweigh its disadvantages, they are more likely to invest in the resource or system. Enterprises that are aware of CI will realise that it offers them many benefits and will invest in it and practice it because it will help them to make quality decisions.

3.3.9 Challenges of competitive intelligence

While CI offers an enterprise a lot of benefits, it also presents some challenges. Some of these challenges include lack of training, lack of resources and an inability to provide compelling evidence (Hesford, 2008). Muller (2007b) identified and briefly discussed the following CI challenges in his study:

- *Creating a participatory environment and awareness of CI:* This is a continual challenge. The CI Foundation's survey found that most CI practitioners created exposure to senior management through the distribution of their deliverables. They presented an excellent opportunity for CI practitioners to demonstrate the value CI provides to the enterprise. As was found in South Africa, although most people in the enterprise knew that CI exists but few participated in or contributed to it.
- *Budgetary constraints:* It seems to be a global reality for CI units, and budgets shrink or grow over time depending on economic factors.
- *Management participation and visibility*: This remains a constant challenge, although most respondents reported regular contact with their senior management through their deliverables and many reported high levels of CI awareness and increased management visibility.
- *Personnel issues*: Finding and retaining the right skills set is another challenge. The outsourcing of research or analysis increased for some of the respondents, while others sourced resources from elsewhere in the enterprise.
- *Showing return on investment/value*: Few enterprises measure the return on investment of CI and showing value on a constant basis remains a challenge to CI units.
- *Identifying critical information needs and the effective and timely gathering of relevant information*: Effectiveness includes the optimal use of internal sources of information and knowledge.
- *Training and education in CI:* This is a global challenge.

To enjoy the benefits of CI, businesses have to find ways of dealing with the above challenges. Because most people in a business may be unaware of CI, they are reluctant to adopt it. Therefore, management must come up with strategies to raise CI awareness in the business. In addition, most educational institutions do not provide CI training and as a result, most people are unaware of CI and do not have the skills to practice it. Businesses should save money to invest in CI so that they can reap its rewards. Managers are responsible for

authorising and releasing funds and they will not authorise and release funds if they do not support CI. It is therefore crucial that they support CI practice.

3.3.10 Competitive intelligence ethics

While enterprises may collect information about their competitors, rooting through dustbins, phone tapping and obtaining stolen documents are unethical (Garret, 2011). Sexton (2007) argues that enterprises must consider ethics when collecting information from their competitors. They should consider the methods they use to acquire the information, the privacy and confidentiality of the information concerned, and the consequences for public interest as a result of the use of the information. According to Sexton (2007), it is generally accepted that methods of questionable intelligence gathering fall into three categories: (1) methods involving deceit or some form of misrepresentation; (2) methods involving attempts to influence the judgment of those entrusted with confidential information, particularly offering inducements to reveal information; and (3) methods involving covert surveillance.

The Society for CI Professionals (SCIP) prescribes to a code of ethics for CI professional which includes the following (Louw & Venter, 2008):

- to strive continually to increase the recognition and respect of the profession
- to comply with all the applicable laws, domestic and international
- to disclose accurately all relevant information, including one's identify and enterprise, prior to all interviews
- to fully respect all requests for confidentiality of information
- to avoid conflicts of interest in fulfilling one's duties
- to provide honest and realistic recommendations and conclusions in the execution of one's duties
- to promote this code of ethics within one's enterprise, with third-party contractors and within the entire profession
- to adhere faithfully to and abide by one's enterprise's policies, objectives and guidelines

3.3.10.1 Factors that strengthen ethical decision making in intelligence gathering situations

Rittenburg et al (2007) list and discuss the following factors:

- *Government regulations/laws:* Governments often regulate business activity and develop laws to protect the interests of both enterprises and consumers. Government might therefore take a leadership role in the identification of unacceptable intelligence gathering activities and the subsequent encouragement of enterprises to publicly disclose corporate misconduct. Evidence suggests that this is already occurring and that governments use different approaches to protect domestic enterprises from foreign entities' unethical conduct.
- *Established societal/industry and business norms:* On a macro-level, businesses operate within a societal and industry framework to provide products to consumers, work to employees and wealth to shareholders. Enterprises are managed and governed overall by the general population via the government and legal system. National sovereignty gives cultures the power to influence what is considered acceptable conduct, and social equity and basic human rights impact this ability. Enterprise autonomy enables enterprises to function according to the law. Perhaps most relevant with respect to competitive intelligence gathering is the value of market integrity, which represents a marketplace that is competitive, honourable and free moving. While these perfect conditions are likely impossible, competition is one of the most important components of market integrity. The free flow of information is therefore valuable when buyers and sellers can easily obtain such knowledge.
- *Professional approaches and standards:* Increased international membership in enterprises such as the SCIP, as well as the adoption of the SCIP's code of ethics, suggests a growing emphasis on the positive management and policing of the competitive intelligence function overall.
- *Enterprise approaches and standards:* For example, the SCIP's ethical standards provide enterprises with a viable framework for developing their own code of ethics and training.
- *Perceived potential for customer backlash:* Enterprises should also develop strategies to combat unethical intelligence gathering, which could increase the costs of doing business and the price customers have to pay for products and services. Furthermore, information that is collected illicitly might disadvantage consumers further if competition is lessened. If ethical standards are overlooked, a lack of trust in the institution or business (or diminished consumer confidence) is likely to follow.

Consequently, intelligence gathering has to be managed institutionally to prompt ethical behaviour.

3.3.10.2 Factors that weaken ethical decision making in intelligence gathering situations

Rittenburg et al (2007) identify the following factors that weaken ethical decision making in intelligence gathering:

- *Technology:* Technological advances make information more accessible, promote globalisation and encourage increased information gathering among enterprises. New technology also facilitates the selection of key indicators for analysis and combining different information sources. Not only are more data obtainable, but the information is available faster and updated more frequently.
- *Corporate collaboration:* Another trend that affects intelligence gathering is competitor collaboration through strategic alliances. Strategic alliances involve cooperative arrangements developed among different enterprises to obtain a competitive advantage. The number of these agreements has risen from a global standpoint for several decades. While this kind of collaboration is beneficial, enterprises should be careful not to give away more than they gain. Even though the growth in competitor collaboration might lead to unethical intelligence gathering as indicated by the SCIP's code of ethics, there is nothing inherently unethical about the collaborations themselves. Therefore, specific unethical actions within the context of these collaborations should be monitored and ultimately decreased with managerial action.
- *Concentrated or high competition:* Increased competition and corporate restructuring characterise the current global environment, which also creates different competitive intelligence gathering challenges. The formation of the World Trade Organisation and the new emphasis on emerging markets continually pressurise enterprises to develop high-quality global products.
- *Inexperience with competitive intelligence gathering:* The increased emphasis on competitive intelligence is further augmented by the growth in new small businesses over the last decades. Many of these new businesses are likely inexperienced with regard to CI, which might increase their use of questionable practices to remain competitive. Indeed, much of the growth in electronically accessible competitive information benefits larger enterprises rather than newly formed small businesses.

- *Varying ethical standards in industries and nations:* Perhaps one of the greatest challenges is identifying appropriate standards for operating in the global environment. Unfortunately, the SCIP's code of ethics provides little guidance with regard to cultural conflicts that prompt ethical inconsistencies. The SCIP's code requires enterprises ''to comply with all applicable laws, domestic and international''. There is no provision for differing laws that reflect divergent national cultures. Following the SCIP's standards could potentially institutionalise unethical practices that exist in different regions and cause conflicts in cultures that reprimand such actions.

3.3.11 Awareness of competitive intelligence

In order for enterprises to make optimal use of CI efforts, there should be appropriate enterprise awareness of CI. Without proper awareness and attitudes that favour both intelligence and information sharing, it is difficult to develop intelligence within an enterprise. CI's growth, however, will depend on the creation of awareness of its benefits and a change in the way that enterprises deal with and view information (Muller, 2007b). In terms of awareness, one has to address knowledge, understanding, perceptions, etc. Smith et al (2010) argue that the antecedent investigation of CI awareness and attitudes in SMEs remains a gap in the literature. According to Muller (2005a), South Africa and its enterprises and industries continue to face a number of competitiveness challenges and CI is one activity that could improve competitiveness. In addition, while awareness of the importance of CI is widespread, it is still not practiced optimally. From a country perspective, the need for creating awareness of the benefits of CI is equally important. Awareness creation has been done with success in other countries through the cooperation between media advocacy groups, workshops, training enterprises, academic courses, and full support of and participation in CI activities by the government. Smith et al (2010) identify the following methods of raising CI awareness:

- *Conferences, seminars, speeches and "breakfasts" are all approaches to creating awareness of CI in SMEs:* These activities are limited to creating awareness or changing attitudes. More structured and customised actions such as training, needs analysis and setting up systems are required to change behaviours.
- *Financial assistance:* If government can provide funds to SMEs for setting up CI units, more awareness will be raised.

- *Education and training:* There are instances where SME managers follow a CI module. More targeted training for using CI tools is often part of a CI programme.
- *Collaborating entities:* Enterprises can join hands in teaching each other about CI.

CI awareness has been mentioned as one of the major challenges of CI. There is therefore a need to raise CI awareness. Although the above ways of raising awareness may not be the only ones, they are the major ones. Because most educational institutions do not provide CI training, most businesses are unaware of CI and do not have people with skills to practice it. CI courses at educational institutions can be used to raise awareness and instil CI skills in graduates. The CI awareness gap must be closed.

3.3.12 Competitive intelligence models

Muller (2009) identifies three basic enterprise structures for the intelligence function: (1) a centralised function that reports to a single corporate entity; (2) a decentralised function that typically incorporates multiple intelligence units serving several enterprise components; and (3) a hybrid function that combines features of both the centralised and the decentralised functions. They are discussed below.

1) *Centralised intelligence units:* In centralised CI units actions such as the collection, interpretation, analysis and communication of CI are assigned to specialised intra-enterprise intelligence or competitor analysis units in order to exploit the synergy created by centralisation. Centralised units typically report to a senior corporate officer who is responsible for providing the necessary guidance and assistance for the intelligent process in terms of budgets, personnel and other resources. Advantages of centralised units include the ease with which data can be assembled and shared, since all divisions transmit their information to a single, organising unit.
2) *Decentralised intelligence units:* These units typically include the distribution of CI professionals throughout the enterprise, where they mainly serve tactical intelligence requirements and seldom provide intelligence to senior management. Any centralised CI unit has the responsibility of coordinating intelligence activities among the other intelligence units. The division's intelligence priorities and information is rarely shared with other business units and this leads to a silo problem. This is often not an economical model since there is duplication of effort. Furthermore, the model does not support the development of a coordinated and informed view about opportunities and threats.

3) *Hybrid intelligence units:* Hybrid units combine attributes of both centralised and decentralised units.

The decentralised intelligence unit poses the following challenges:

- *Unique information needs in each business unit:* Each business unit has a different operational focus and therefore unique information support needs. For example, research and development business units require technical and patent information and sales and support business units require competitor and/or market driven intelligence. This makes decentralising the CI effort a very challenging and resource-intensive undertaking. It often requires hiring dedicated CI support staff with industry and operational experience to support key business units.
- *Decentralised CI requires a grass-roots approach:* CI practitioners are required to "get up close and personal" with the decision-makers and key stakeholders in each business unit. This is best achieved by attending sales and staff meetings held in each business unit to be introduced to the customers, to make them aware of the purpose and value of CI in individual business units, and to define their key information gaps. Often, just being present and visible contributes to a decentralised department's success.
- *Increased need for CI processes and guidelines:* Due to the resource-intensive aspects of CI, business professionals should have access to a clear set of guidelines and resources to become more self-sufficient when searching for information. The guidelines should be created and disseminated by corporate CI professionals and made available across business units. However, it is unusual to find enterprises with a structured CI policy and guidelines strategy that are published and applied enterprise-wide.

Sewell (2007) suggests the following ways to curb the above challenges:

- *Recruit from within:* Hire part-time business professionals who are retiring or have part-time availability to help to produce and disseminate the CI data requested by each business unit.
- *Help business units to help themselves:* Save effort by defining and publishing detailed guidelines, including making processes, information sources and resources available to all business unit professionals who are in need of CI. These might be intranet sites, access to corporate libraries or bibliographies, or building a central CI

database (see the next point) which can be accessed according to business unit interests. Guideline information should cover a wide range of resources that range from ethical CI policies to analytical frameworks and methodology, to internal points of contact and available resources to assist the customers with their respective information needs.

- *Leverage technology across the enterprise:* Keep in mind that "one size fits all" is not an acceptable approach to producing and disseminating effective CI among business units. A CI portal can only add value to each business unit if it can be tailored to display information that is relevant to each business unit. Although it is usually feasible to use a common database and sources of information, you should adopt and deploy a technology framework that can display a unique and relevant set of information sources, news and analyses to each business unit in your enterprise. This can be done by defining and assigning a unique user profile with the login credentials of each business unit professional in your enterprise so that a research and development user who logs in on your portal can be provided with a technology-centric news and information mix while a sales professional can be shown sales/customer-driven intelligence and market trend information.
- *Become an evangelist:* In the end, CI remains a people-focused discipline and your success in implementing a decentralised CI function is directly linked to your ability to establish credibility and reciprocity with professionals in the business units you serve. Attending key staff meetings to promote the role of CI in the enterprise and define the key information requirements of business unit professionals is critical to the development of a decentralised CI function in the enterprise.
- *Leverage enterprise-wide events to create synergy:* Industry conferences, sales meetings and trade shows are examples of events you can leverage to establish intelligence synergy between corporate and business unit stakeholders. This gives you a unique opportunity to share the CI objectives of your entire enterprise while leveraging the contacts and knowledge of business unit professionals during a specific event. Conferences and trade shows are also unique opportunities to reinforce your enterprise's CI code of ethics and guidelines among corporate and business unit stakeholders in your enterprise, and to provide a wealth of CI for both corporate and business unit interests.

Due to a lack of resources, most SMEs only practice CI part-time. They collect CI when there is a need for it and do not have a CI section operating on a daily basis. As a result, they employ people in different sections of the business to gather CI. This kind of

arrangement is labelled “decentralised CI”. Decentralised CI is usually practiced by SMEs because they do not have the resources to setup a centralised, independent CI section. Because they have resources, large businesses can set up a centralised CI section.

3.3.13 Outsourcing competitive intelligence

Although some large enterprises opt to perform in-house CI, others outsource many aspects of CI (most notably gathering data and information and tracking and scanning the competitive environment) (Muller, 2009). According to Muller (2009), outsourcing CI has become a global phenomenon and is also prevalent in South Africa. According to Wunderlin (2007), the key reasons for outsourcing CI include the following: obtaining particular industry expertise; using outside human resources instead of expanding staff; obtaining objective results or checking internal thinking; and ensuring that ethical and legal guidelines are followed in obtaining certain types of information.

Wunderlin (2007) further identifies the following benefits of CI outsourcing:

- Avoiding competitive blind spots.
- Entering new markets where internal managers do not have expertise.
- Checking internal assumptions
- Having access to specialists who often have vast contact and a valuable broader view of the competitive environment.
- They often create a larger strategic context into which the competitive data are placed.
- Outsourcing CI allows for more unique insights being gathered and developed thought contact with external sources.
- Building longer-term CI capability is one of the major advantages of outsourcing. Having a long-term relationship with an external third-party consulting resource means that the resource is available to build larger awareness capability throughout the enterprise that contracts for its services.
- CI researchers can assist with assessing the implications of events.
- Outsourcing can be seen as a tool for improving competitive advantage rather than just a cost-saving measure.

3.3.13.1 Risks associated with competitive intelligence outsourcing

Outsourcing often involves an element of risk and enterprises should be knowledgeable about measures to control risks (Glitman, 2007). The risks associated with outsourcing can be typically categorised under the following (Glitman, 2007; Salonen & Pirttimaki 2005): confidentiality and intellectual property; revealing strategies to the competitor; and relinquishing control over gathering and analysis practices, which can lead to damage associated with unethical or illegal methods used by the contractor.

3.3.13.2 Models for competitive intelligence outsourcing

There are two basic outsourcing models, namely: (1) outsourcing parts of the CI function (e.g. certain projects or gathering primary information, or even training and database management) and (2) comprehensive outsourcing where a dedicated external function or supplier takes care of all the CI functions of an enterprise, with only a single person or small unit in the client enterprise left to fulfil a coordinator role (Muller, 2009). These models are briefly discussed below.

1) *The outsourced CI project model:* Outsourcing elements of CI has become increasingly popular due to various reasons, including the pressure to cut cost. The CI unit is often regarded as a cost centre and becomes a victim to personnel cuts. Yet the intelligence is still required and this leads to CI outsourcing. Pressure on CI units to deliver unique insights and not general information that is available freely on the internet and in other public sources has also increased as a result of financial pressure.
2) *The complete outsourced CI model:* Enterprises are realising that higher grades of CI outsourcing leads to a higher quality service at a lower cost, primarily because of the economies of scale of the external enterprise and the enterprise's significant advantages in hiring and keeping expert employees in the outsource function. The availability of skills is a factor that increasingly leads to enterprises outsourcing CI or aspects of CI. CI specialists are scarce and retaining such talent is costly. Therefore the outsourcing option is lucrative.

Businesses prefer to focus their resources on their core business – that part of the business without which the business cannot exist. As a result, businesses outsource sections which are not core business. CI is one of the sections businesses outsource to enterprises with expertise. People who do not specialise in something usually take longer to do it, so

businesses outsource CI to save time and money and get quality information quickly. Outsourcing can be done partially or fully.

3.3.14 Location of competitive intelligence

Researchers often argue about where to locate CI (Gilad, 2001). Gilad argues that many established enterprises traditionally place the CI unit under other functions and thereby limit its scope to a narrow functional focus. Ideally, it should sit atop line functions which it should regard as building blocks. According to Hesford (2008), some enterprises consider CI to be a high-level function supporting strategic decision making while other enterprises view CI as part of market research, supporting the sales and marketing effort. According to Gilad (2001), CI is usually located in the following areas:

- *Independently:* is the most realistic reaction to the need to coordinate cross-functional responses to structural changes at the industry level, reporting to the unit president or general manager.
- *Strategy department:* The benefits of this include that CI people get to deal with strategic issues.
- *Marketing:* CI that is under a marketing executive's control is too often strictly tracking competitors, focused on tactical information (product, pricing, etc.) and is mostly news reporting
- *Market research:* CI is fundamentally different from market research. Market research focuses on the consumer/customer, uses neutral primary research (behavioural or focus groups), employs sophisticated statistical analysis and is heavily biased towards quantitative results (market-share statistics, cluster analysis and multivariate models). Market research is one of many inputs of CI, since CI focuses on the risks in the industry arena and beyond (alternative technologies, substitutes and potential entry).
- *Knowledge management:* According to Gilad, placing CI under knowledge management is a certain kiss of death".

Although researchers advise that CI should be located independently, enterprises still place CI in different sections. One of the reasons for this is lack of resources to set up an independent CI. The reason why CI is also called "marketing intelligence" is because most enterprises locate CI in the marketing department. The location of CI determines how effective its dissemination will be. The disadvantage of locating CI in different functions is

that functions tend to specialise, leading to CI that is only focused on one function. Therefore, CI should be located independently.

3.3.15 Transforming information into competitive intelligence

Information is the result of the collection of related data. Data is raw facts. Information must be refined to get intelligence. Three elements are involved in the transformation of information into actionable intelligence (Lewis, 2006):

1) *Optimising data acquisition:* Intelligence is the job of everyone in the enterprise. Certain functions have unique access to specialised information in the course of their work. Provision of channels to enable information from such sources to flow within the enterprise, whether through formal project teams or informal networking, can pay dividends in terms of getting the right information to the right people at the right time and satisfying priority business needs. Encouragement of a culture of trust and information sharing to support these channels is also vital.
2) *Adding value to available information:* This involves the deliberate, methodical gathering, collation and appropriate analysis of information – with the analysis being carried out by intelligence analysts or decision-makers, or both. The key to success at this stage is an ordered process which takes account of all relevant information objectively and which includes proactive primary research to acquire human intelligence.
3) *Effective delivery of intelligence to where it is needed in the enterprise:* Delivery of intelligence to nodes of decision making within the enterprise is most important and cannot be over-emphasised. Without effective means to achieve this, neither improved sourcing of data nor primary research and analysis can be translated into real intelligence that can help to confer competitive advantage.

In its raw form, data is meaningless. Data must be processed through information systems to become information. The greatest challenge facing decision-makers is information overload. The internet, for example, carries huge amount of information on almost every topic. Some of the information is not true and can be deceiving to an enterprise that do not analyse information. Intelligence has been introduced to add value to information and to ensure that decision-makers have relevant information. Information is analysed and processed to become intelligence.

3.3.16 Competitive intelligence professionals

Owing to restricted budgets and perhaps an undervaluation of CI, intelligence professionals typically spread their limited resources among the various activity areas of CI, namely: information needs assessments, gathering of relevant information, analysis and interpretation, intelligence communication, and the management of the unit and the intelligence. This is the case in South Africa, where the CI practitioner is often the manager, collector of information, analyst and marketer of CI in an enterprise (Muller, 2007a).

3.3.16.1 Training and education

According to Muller (2007b), intelligence training seems to be a universal challenge for many CI professionals, indicating that they need and want more training (in advanced CI analysis in particular). Furthermore, the areas in which training is required include accessing, integrating and sharing information, and educating themselves and their management better about CI. In South Africa formal training and education in CI remains a challenge, with few higher education institutions offering dedicated CI education programmes.

3.3.16.2 Professional skills

Strauss and Du Toit (2010) point out that potential CI practitioners should develop their skills fully to be able to conduct the CI process efficiently. According to these authors, the following are generally accepted skills of CI professionals:

- *traits:* creativity, persistence, written and oral communication skills, analytical ability, understanding of scientific methodology, independent learning skills and business understanding
- *teachable skills:* strategic thinking, business terminology, market research presentation skills, knowledge of primary information sources and research methods, enhancement of journalistic interviewing and analytical abilities
- *professional experience:* knowledge of corporate power structures and decision-making processes, industry knowledge and enhancement of primary research skills

3.3.16.3 Job description

It is recommended that the following skills are included in the job description of CI professionals in South Africa (Strauss & Du Toit, 2010):

- considerable knowledge of the principles and practices of CI
- the ability to aggregate, analyse and synthesise industry data into communicable deliverables that will help to guide decisions
- the ability to think strategically
- specific industry knowledge
- the ability to express ideas clearly and concisely, orally and in writing
- presentation skills
- technological skills
- networking skills
- research skills
- the ability to multitask
- the ability to work according to deadlines
- an innovative personality

3.3.16.4 10 key types of competitive intelligence analysis

Fleisher and Wright (2010) list and discuss the following types of CI analysis:

- *Creative/Scientific:* CI analysts should be skilled in the application of both creative and scientific techniques.
- *Deduction/Abduction/Induction:* This continuum examines the sequence of analysis arising between assumptions, facts and conclusions. It is important because many CI analysts begin their tasks with a plethora of data, facts and rumour, while others start with nothing. Analysts deduce inferences by reasoning from the general to the specific. Deductive reasoning works best in so-called closed systems, which rarely exist in the competitive business arena. Induction typically happens when a CI analyst is able to postulate causality among related phenomena.
- *Individual/Group/Enterprise:* CI analysts work on tasks across three generic levels of their enterprises: individual, group and enterprise. As with many problem-solving and decision-making endeavours, achieving success at all three levels involves more

than just the added burden of having to integrate more people into a task. At the enterprise level, a CI analyst's own group – and other groups in the enterprise – will generate insights decision-makers can use.

- *Intuition/Intellect:* Analysts will have a "hunch" or a sense of something they cannot readily express in writing. What makes intuition so important in a CI analytical context is that not only will the analyst use it to some degree in data processing, but the decision-maker will almost always use a similar skill in assessing the recommendations of the analyst. The use of intellect is where the CI analyst operates in a well-thought-out, calculated and rational manner. Intellect is driven by a data gathering plan and a strategy which is subject to time, social and other performance pressures that can impair it. Intellect and intuition may converge eventually in an analyst's recommendation, but the intellectual portion of the recommendation can be more easily communicated to recipients in the form of rules, concepts and/or techniques.
- *Precision/Perspective:* While the perspective view can sometimes be valuable, this does not mean that there is no room for precision in coming to the view. It all boils down to what is reported and how it is done. CI analysts should always seek to attain a reasonable level of precision without spending more time than is necessary to produce a recommendation with an agreed level of confidence.
- *Qualitative/Quantitative:* Qualitative analysis methods are typically associated with interpretative approaches rather than measuring discrete, observable events. Qualitative methods are most helpful in areas that have been identified as potential weaknesses within the quantitative approach. The use of interviews and observations provide deeper, rather than broader, data about a particular phenomenon. Quantitative methods are more commonly used to examine a context at a single point in time
- *Automation/Human process:* One aspect that every CI analyst should assess is the desire to automate processes. Many business processes have benefited greatly from the systems approach and it certainly has its place (Bose, 2008).
- *Written/Spoken visualisation:* The issue of clearly communicating analytical processes and outcomes is ever present. In volume terms, the written/spoken word is arguably the most frequent form of delivery that is used. Unfortunately not all spoken or written words are meaningful, because of poor delivery, poor language skills and/or overuse of codes or acronyms which do not translate or travel across divisions or strategic business units.

- *Objectivity/Subjectivity:* Subjectivity in CI analysis requires the same justification as any other form of objective measure. It must be properly clarified so that decision-makers can make their own judgements about the quality of the analysis and the recommendations presented. Analysts should always enter an assignment with an open mind; try to see things through the perspective of their data gatherers, decision-makers and market competitors in order to be empathetic to better understanding their own preconceived notions.

CI analyses require a unique and differentiated form of pragmatic thinking. Most individuals have not been formally trained, nor do they have the natural ability to perform this type of activity (Fleisher & Wright, 2010). A CI professional should possess the above skills to be competent in his or her work.

3.3.17 Competitive intelligence system

According to Ting, Xiao and Weiping (2009), a competitive intelligence system (CIS) is the competition strategy decision and consultation system of a man–machine combination established by enterprises to enhance competition by taking human intelligence as leadership, the information network as means and enhancing the competition as an object. Moreover, a CIS collects, arranges, classifies, processes, releases and analyses unstructured information from the interior and exterior of enterprises through intelligent technology means such as information depth mining, intelligent information clusters, personalised information customisation, intelligent full-text searches and information pushes. Thus it realises real-time monitoring for the enterprise's own competition power, competitors and competitive environment. Liu and Oppenheim (2006) point out that an excellent CIS possesses the traits of applicability, timeliness, objectivity, completeness and economy. A CIS is composed of three parts, which are depicted in figure 3.7 below: (1) a subsystem for the collection of CI; (2) a subsystem for the analysis and processing of CI; and (3) a subsystem for servicing the CIS.

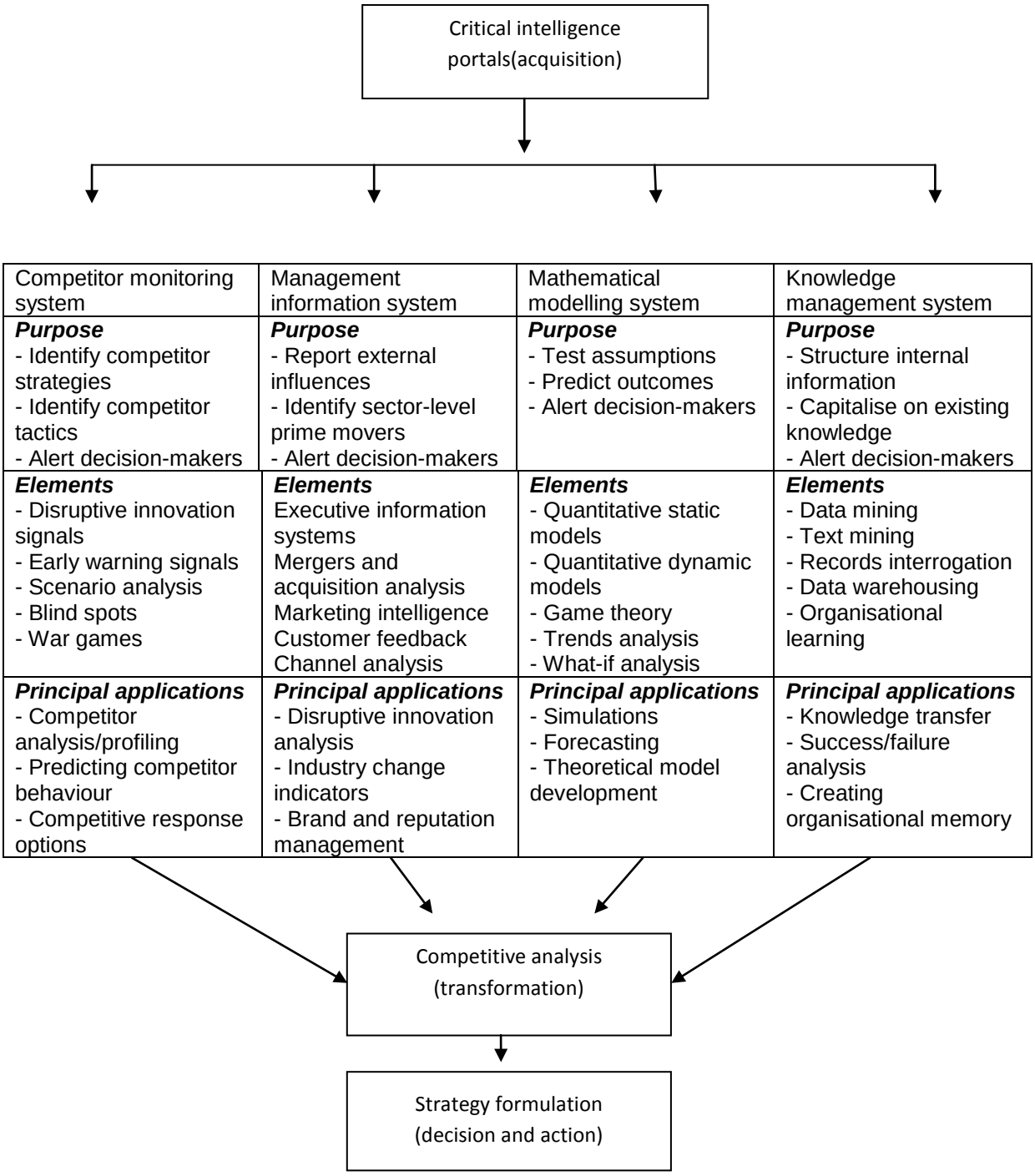

Figure 3.7: The competitive intelligence system: principal components (source: Wright, 2010)

3.3.18 Competitive intelligence performance measurement

Investment and resource-allocation decisions in enterprises are frequently challenged by shareholder and board-pressured executives who expect bottom-line or at least top-line performance to be demonstrated. Questions such as the following are asked: Just what is CI's contribution to the enterprise's profitability? Has CI increased sales? Is CI associated with any significant expense reductions? What is the CI unit's share of the gain from particular decisions or market movements? (Blenkhorn & Fleisher, 2007)? According to Hesford (2008), there is a possibility that enterprise performance may influence enterprise support for CI. Moreover, better performing enterprises will have greater capability to invest more resources in CI. According to Blenkhorn and Fleisher (2007), enterprises do CI assessments for the purposes depicted in table 3.1.

Table 3.1: The purpose of competitive intelligence assessment performance (source: Blenkhorn & Fleisher, 2007)

Purpose	**Related questions**
To evaluate	How well is our CI department, group, manager, task force or unit performing?
To control	How can CI managers ensure that their reports do the right things?
To budget	To what CI programmes, people, projects, consultants, vendors or information sources should resources be allocated?
To motivate	How can CI executives motivate their reports and other functional stakeholders to do the things necessary to improve both CI and the enterprise's performance?
To promote	How can CI managers convince their superiors and other relevant stakeholders that their function is doing a good job?
To celebrate	What CI accomplishments are worthy of the important organisational ritual of celebrating success?
To learn	What CI activities or efforts are working and not working, and why?
To improve	What should be done differently to improve CI performance, and by whom?

3.3.17.1 Reasons for competitive intelligence performance assessment

Blenkhorn and Fleisher (2007) list the following reasons for performing CI performance assessment: demonstrating CI performance in financial terms; justifying that the unit/function needs to acquire new resources; increasing business and the resources associated with it, for the CI function and the enterprise; and moving CI from being viewed as a cost centre toward it acting akin to a profit centre. Shareholders want to know the value that is added by the resources they invest their money on. CI performance assessment provides management and shareholders with the return on CI investment and the tangible and intangible benefits thereof.

3.4 CONCLUSION

The mere fact that a business exists means that decisions have to be taken. Decision making is part of the daily routine of a business. One of the reasons businesses make decisions is to deal with competition. Information technology has made globalisation possible. As a result of globalisation, businesses have to compete in a global market instead of competing only with their local rivals. Also, businesses have to come up with strategies to outwit their rivals. The latter is done through strategic management processes which consist of four steps, namely: (1) strategic analysis, (2) strategic development, (3) strategic implementation and (4) strategic monitoring. During strategic analysis, the internal and external environments must be scanned. After scanning the internal environment, businesses get to know their weaknesses and strength and by scanning the external environment, they discover opportunities and threats.

CI is a strategic management tool that is used by businesses to gain competitive advantage over their rivals. It provides knowledge of competitors and their marketing strategies, objectives, research activity, and strengths and weaknesses. Although there are many definitions of CI, Brody's (2008) definition is adopted for this study: "[T]he process by which enterprises gather actionable information about competitors and the competitive environment and, ideally, apply it to their planning processes and decision-making in order to improve their enterprise's performance." Although businesses adopt CI for many reasons, most do so to gain competitive advantage over their rivals. There are many sources from which business can gather intelligence. CI is a process that is made up of seven steps, namely: (1) identifying intelligence needs and determining key intelligence topics, (2) planning and directing, (3) collecting information, (4) information processing, (5) information analysis, (6) dissemination of information, and (7) intelligence users and decision-makers.

While CI presents some challenges to the business, most researches have revealed that CI offer many benefits. While businesses can collect information about their competitors, they have to do so with ethics in mind. For optimal use of CI, awareness must be raised. Smith et al (2010:525) argue that the antecedent investigation of CI awareness and attitudes in SMEs remains a gap in the literature. Three models of CI have been identified, namely the centralised model, the decentralised model and the hybrid model. The decentralised model has some challenges. While there are businesses that perform their CI activities, most outsource them. Though there are some risks involved in CI outsourcing, there are also many benefits. CI is located in different levels of a business and there are questions about

where it should be located in a business. In most businesses, CI is located in the marketing department. Those who want to invest in CI worry about its worthiness. As a result, businesses resort to CI performance measurement. In the next chapter the research methodology of this research is reviewed.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 INTRODUCTION

Research is a scientific and systematic search for pertinent information on a specific topic. It involves defining and redefining problems; formulating hypotheses or suggested solutions; collecting, organising and evaluating data; making deductions and reaching conclusions; and carefully testing the conclusions to determine whether they fit the formulated hypotheses (Dhawan, 2010). Rugg and Petre (2007) say that research involves finding something new, while Dhawan (2010) points out that each research has a purpose.

After having outlined the literature in the previous chapters, in this chapter the research design, research method, population sample, research instrument, data collection, reliability and validity of the research are discussed. Lastly, the ethical considerations of the research are discussed.

4.2 TYPES OF RESEARCH

There are different types of research. Dhawan (2010) identifies and discusses the following approaches to research:

- *Descriptive versus analytical research:* Descriptive research includes surveys and fact-finding enquiries of different kinds. The major purpose of descriptive research is to describe the state of affairs as it exists at present. The research methods that are in descriptive research are survey methods of all kinds, including comparative and co-relational methods. In analytical research, the researcher has to use facts or information that is already available and analyse these to make a critical evaluation of the material.
- *Applied versus fundamental research:* Research can either be applied or fundamental. Applied research is aimed at finding a solution for an immediate problem in a society or an industrial business enterprise; whereas fundamental research is mainly concerned with generalisations and with the formulation of a theory. Research about a natural phenomenon or research relating to pure mathematics are examples of fundamental research.
- *Quantitative versus qualitative research:* Quantitative research is based on the measurement of a quantity or amount. It is applicable to phenomena that can be

expressed in terms of quantity. Qualitative research is concerned with qualitative phenomenon (i.e., phenomena relating to or involving a quality or kind).

- *Conceptual versus empirical research:* Conceptual research relates to an abstract idea or theory. It is generally used by philosophers and thinkers to develop new concepts or to reinterpret existing ones. Empirical research relies on experience or observation alone, often without due regard for system and theory.
- *Other approaches to research:* All other types of research are variations of one or more of the above approaches, based on either the purpose of the research, the time required to do the research, the environment in which the research is done or some other similar factor.

This research is intended to describe the current status of CI awareness and practice in SMEs. Accordingly, this research is descriptive, quantitative, empirical and applied. As a result, the mean, median, standard deviation and variance will be used to summarise and explain the results of this study.

4.3 RESEARCH PURPOSES

The purposes of this study are to (1) establish the level and extent of awareness and practices of CI in SMEs (2) identify the challenges SMEs face in implementing CI and (3) equip SMEs for decision making in order to help SMEs to gain competitive advantage in a turbulent global market and to enhance their economic growth (see section 1.5 of chapter 1 of this dissertation).

The following aims are derived from the purposes: to establish the level and extent of awareness and the practice of CI in SMEs, to establish the position of CI in enterprises and to establish whether it provides these enterprises with competitive advantage.

These lead to the following primary research questions (see section 1.6 of chapter 1 of this dissertation):

1) How aware are the SMEs of CI?
2) How do SMEs practice CI?
3) How does CI affect the competitiveness of SMEs?

The following secondary research questions are formulated from the primary research questions (see section 1.6 of chapter 1 of this dissertation):

1) To what extent are SMEs aware of and practicing CI?
2) How do SMEs become aware of CI?
3) How do SMEs create CI?
4) Where is CI positioned in SMEs?
5) Do SMEs perform strategic planning and what is the role of CI in the process?
6) What is the extent of competition among SMEs?
7) Does the practice of CI provide SMEs with competitive advantage?

The following objectives are formulated from the research questions outlined above (see section 1.7 of chapter 1).

Primary objectives:

1) to establish the extent to which SMEs are aware of CI
2) to ascertain to what extent SMEs practice CI
3) to determine the impact of CI on the competitive advantage of SMEs

Secondary objectives:

1) to establish the level of awareness and CI practices in SMEs
2) to establish how SMEs become aware of CI
3) to determine how SMEs create CI
4) to establish the positioning of CI in SMEs
5) to determine whether SMEs perform strategic planning and the role of CI in the process
6) to establish the level of competition among SMEs
7) to establish the impact of CI on the competitive advantage of SMEs

4.4 TIME DIMENSION

The time dimension is the time in which a particular investigation is undertaken or data becomes available to researchers (Anderson, 2006). According to Cooper and Schindler (2001), there are two types of time dimension research designs: cross-sectional studies and longitudinal studies. A cross-sectional study is undertaken once and information is gathered about an area of interest at a particular point in time (Indupalli & Sirwar, 2011). A longitudinal study is any type of research that is undertaken over a long period of time (Paul, Elam &

Verhulst, 2007; Morphy, Dunn, Lewis, Boardman & Croft, 2007). Because the purpose of this study is to investigate the awareness and practice of CI in SMEs in the CTMM at this point in time, a cross-sectional study is appropriate.

4.5 POPULATION AND SAMPLE

The target population is the entire group of items in which the researcher has an interest (Cooper & Schindler, 2006). Tustin et al (2005) state that the population includes all the people or establishments whose opinions, behaviour, preferences and attitudes will yield information to answer the research questions. Put differently, Saunders et al (2000) define a population as the full set of cases from which data can be sourced.

For the purpose of this study, SMEs in the CTMM were selected as the population. The CTMM is the largest municipality in South Africa (after the Metsweding District Municipality has been incorporated). The CTMM comprises an area of 6368km^{2}and has a population of over 2.5 million people. Moreover, the CTMM supports and develops small business. It has a vibrant and diverse economy, which enables it to contribute at least 26.9% of Gauteng province's GDP and 9.2% of the national economy. The CTMM's economy is service-based, with government and financial services being the most prominent. The CTMM also has a well-established manufacturing sector, of which the automotive industry represents the biggest share. The CTMM's economy has, over the past decade, enjoyed above-average growth rates compared to the national average and Gauteng province's average. It is expected to maintain the same momentum in the foreseeable future. There are over 4000 small businesses in the CTMM (http://www.tshwane.gov.za).

Because it is not always possible to collect data from a universe or population, a researcher must select a manageable sample from the population (Kruger, 2010; Burns, Duffett, Kho, Meade, Adhikari, Sinuff & Cook, 2008). According to Tustinet al (2005), a sample is a subset of a population (or universe). Lohr (1999) defines sampling as the process of selecting a proportion of the population to represent the entire population; it is a critical aspect of design in quantitative research, and especially in survey research. There are two categories of sampling: probability sampling and non-probability sampling (Pasek & Krosnick, 2010; Gillespie, Chaboyer & Wallis, 2010; Piper, 2010; Kakinami & Conner, 2010; Dennis, Osborn & Semans, 2009; Draugalis & Plaza, 2009; Tansey, 2007; Tustinet al, 2005).

A probability sample is a sample where everyone in the target population has a known probability of being randomly selected in the survey sample (Tustinet al, 2005). Kakinami

and Conner (2010) state that, with the properties of random selection and a known probability of selection, probability samples are theoretically unbiased estimates of the population. Sadler, Lee, Lim and Fullerton (2010) explain that the use of probability sampling methods is considered to be the gold standard for recruiting participants who are most likely to be representative of the larger population from which they are drawn. According to Tustin, et al (2005), the main probability sampling strategies include (1) simple random sampling, (2) systematic sampling, (3) stratified sampling, (4) cluster sampling and (5) multi-stage sampling. These are briefly described below.

1) *Simple random sampling:* The probability of being selected in the sample is known and equal for all members of the population.
2) *Systematic sampling:* Sample members are chosen at regular intervals after a random start.
3) *Stratified sampling:* The population is divided into different subgroups (strata) and then random samples are selected from each subgroup.
4) *Cluster sampling:* The population is divided into subgroups (called clusters), each of which represents the entire population, and a sample of clusters is drawn.
5) *Multi-stage sampling:* The final sample members are chosen by means of one of the other probability methods, but a number of stages precede the final selection.

A non-probability sample is a sample where the probability of selecting members from the population in the sample is unknown (Tustin et al, 2005). Because no sampling frame is used, non-probability strategies can be less costly and more efficient in recruiting participants than using probability sampling strategies (Kakinami & Conner, 2010). Moreover, non-probability sampling is useful for obtaining participants from hard-to-reach populations or when the population is widely dispersed. However, validity and reliability are more difficult to evaluate with this method, and non-probability sampling can be vulnerable to bias because the researcher may have no firm guidelines for selecting participants. In addition, without the information on the probabilities of selection, sampling errors and the sampling distribution cannot be calculated. According to Cooper and Schindler (2008), the main non-probability sampling methods are the following:

- *Convenience sampling:* This is a non-probability sample that is unrestricted. It is the least reliable design, but normally the cheapest and easiest to conduct. Researchers or field workers have the freedom to choose whomever they find, thus the name “convenience sampling”.

- *Purposive sampling:* A non-probability sample that conforms to certain criteria is called a purposive sample. There are two major types of purposive sampling: judgment sampling and quota sampling. Judgement sampling occurs when a researcher selects sample members to conform to some criterion. Quota sampling is used to improve representivity. The logic behind quota sampling is that certain characteristics describe the dimensions of the population. If a sample has the same distribution of these characteristics, then it is likely representative of the population regarding other variables over which there is no control.
- *Snowball sampling:* Individuals are discovered and may or may not be selected through probability methods. The selected group is then used to locate others who similar characteristics and who, in turn, identify others.

For the purpose of this study, the quota sampling technique was chosen to select the population sample. The quota sample of 100 was decided upon due to financial and time constraints. In order to cover all types of areas in the CTMM, areas were selected for inclusion in the survey. These were: Mabobane, Mamelodi, Soshanguve, Ga-Rankuwa, Eersterust, Atteridgeville, Winterveld, Silverton/Pretoria East, the Pretoria CBD and Rosslyn. Areas were chosen to ensure coverage of both urban and rural SMEs. Table 4.1 below clearly shows the different locations in the sample and the number of SMEs that was selected. For the purpose of this study, the size of the population is assumed to be unknown and its elements infinite.

Table 4.1: Sampling of small and medium-sized enterprises in the City of Tshwane Metropolitan Municipality (source: http://www.saweb.co.za/townships/township/tshwane)

Location	**Description**	**Rural/Urban**	**Number of SMEs**
Atteridgeville	This township was originally named Motsemogolo (large town). It was established in 1939 and later named after a former city council member, Mrs. M.P. Atteridge in 1940. The population is approximately200 000.	Urban	9
Mamelodi	This township was established in 1953 and is situated about 20 km east of the Pretoria CBD. The name "Mamelodi", which means "mother of melodies", is derived from the name given to President Paul Kruger by black people because of	Urban	8

	his unusual ability to whistle and imitate birds. The population is approximately one million.		
Winterveld	Winterveld (Winter Fields) is an under-developed rural area located approximately 40 km northwest of the Pretoria CBD and the township was established in 1950. The population is approximately750 000.	Rural	7
Eesterust	This township was established between 1905 and 1906 on the farm Vlakfontein, Eersterust (meaning "first rest") is situated east of the Pretoria CBD (approximately 15 km from the city centre). The population is approximately40 000.	Rural	7
Pretoria CBD	The Pretoria CBD is situated in the northern part of the Gauteng province and hosts the Union Buildings. It includes areas such as Pretoria Central, Berea Park, Arcadia, Hatfield, Muckleneuk, Sunnyside, Groenkloof, Brooklyn, Gezina and Centurion. The population is approximately 530 000.	Urban	34
Ga-rankuwa	This township was established in 1965 and is located 37 km north of the Pretoria CBD. It used to belong to the Northwest province because it had belonged to Bophuthatswana, which was ruled by Locus Mangope during the apartheid years. The population is approximately 120 000.	Rural	6
Rosslyn	Rosslyn is an industrial area situated north of the Pretoria CBD. The population is 30 000.	Urban	6
Mabopane	Situated in the Northwest province of South Africa, Mabopane is a poor and industrialised township and was established in 1977. The population is approximately 200 000.	Rural	6
Silverton/Pretoria East	Silverton is a suburb situated on the eastern side of the Pretoria CBD. Pretoria East covers suburbs such as Lynnwood, Menlyn, Moreleta Park and Mooikloof. The population is approximately70 000.	Urban	17

Thus, the sample consisted of 74% urban and 26% rural SMEs in the CTMM.

4.6 RESEARCH METHOD

Research methods are all the methods or techniques that are used to conduct research (Dhawan, 2010). For the purpose of this research, a survey was used. According to Rugg and Petre (2007), surveys are used to find out how widespread things are. Dhawan (2010) states that surveys are popularly used in descriptive research. Rubin and Babbie (2011) point out that survey research is a very old research technique. According to Dhawan (2010), there are several methods of collecting data, particularly in surveys and descriptive research. These include observation, interviews, questionnaires, schedules, warranty cards, distributor audits, pantry audits, consumer panels, mechanical devices, projective techniques, in-depth interviews and content analysis. For the purpose of this research, a questionnaire was used to collect the primary data.

4.7 RESEARCH DESIGN

According to Tustin et al (2005), the research design is the plan to be followed to realise the research objectives or hypotheses. In addition, it represents the master plan that specifies the methods and procedures for collecting and analysing the required information. According to Rugg and Petre (2007), research design is something you use to answer a research question rather than something that exists in splendid isolation. Tustin et al (2005) list three types of research design. These are:

1) *Exploratory research (qualitative research/observation/online qualitative surveys):* In this kind of research in-depth interviews, focus groups, online chat rooms and e-focus groups are used.
2) *Descriptive research (quantitative research/online quantitative surveys):* In this kind of research personal interviews, mall intercepts, telephone interviews, mail surveys, facsimile surveys, panels, web-based surveys, e-mail surveys and online panels are sued.
3) *Causal research:* This kind of research involves experimentation.

This study is descriptive research and a survey was conducted to collect the primary data from the respondents. Tustin et al (2005) state that descriptive research is conducted to answer who, what, when, where and how questions. According to Polit and Beck (2006), in a quantitative study any number of strategies can be adopted when collecting data and these can include interviews, questionnaires, attitude scales or observational tools. Moreover, questionnaires are the most commonly used data gathering instruments and consist mainly

of closed questions with a choice of fixed answers. Questionnaires can also be administered in face-to-face interviews or in some instances over the telephone (Polit & Beck, 2006). For the purpose of this study, a questionnaire was designed to collect the primary data from the respondents. According to Dhawan (2010), this method of data collection is quite popular. Moreover, it is mostly used by private individuals, research workers, private and public enterprises, and even governments. Questionnaires have the following advantages and disadvantages (Dhawan, 2010):

Advantages:

- It is free from the bias of the interviewer; answers are in the respondents' own words.
- The respondents have adequate time to give well-thought-out answers.
- The respondents, who are not easily approachable, can also be reached conveniently.
- Large samples can be used and therefore the results can be more dependable and reliable.

Disadvantages:

- A low rate of return and resultant bias due to no-response is often indeterminate.
- It can be used only when respondents are educated and cooperate.
- The control over the questionnaire may be lost once it is sent.
- There is built-in inflexibility because of the difficulty of amending the approach once the questionnaires have been despatched.
- There is the possibility of ambiguous replies or omission of replies to certain question; interpretation of omissions is difficult.
- It is difficult to know whether willing respondents are truly representative.

Before using this method, it is always advisable to conduct a pilot survey to test the questionnaires. A pilot survey is the replica and rehearsal of the main survey. Such a survey brings to light the weaknesses of the questionnaires and the survey techniques. From the experience gained in this way, improvement can be effected (Dhawan, 2010). A pilot study among CI specialists in SMEs ensured that the questionnaire was valid.

4.8 RESEARCH INSTRUMENT

Because most SMEs fail within their first five years, it was important for this study to verify the existence and availability of SMEs. For this reason, and to ensure response, a combination of drop-and-collect and e-mail methods were used to distribute the questionnaires. Some questionnaires were e-mailed to the SMEs that confirmed that they have e-mail facilities; others were dropped off at the SMEs' premises and collected the same day or on the date agreed upon. The questionnaire (see appendix A) was designed and divided into three parts as follows:

- Part 1 outlined the purpose of the questionnaire and defined the terminology based on the existing literature.
- Part 2 was designed to collect information about the characteristics of each enterprise that participated in the survey.
- Part 3 consisted of two sections, namely strategic management and CI. Each section had questions specifically designed for the topic.

The questionnaire consisted of both open-ended questions and closed-ended questions. A Likert scale was used for the closed-ended questions. According to Cooper and Schindler (2008), a Likert scale is the most frequently used variation of summated rating scales. These authors explain that a summated scale consists of statements that express either a favourable or unfavourable attitude toward the object of interest. The respondents were asked to rate variables based on a Likert scale (see appendix A) ranging from "Strongly disagree" to "Strongly agree". The measurement scale therefore leads to ordinal scale data that does not lead to more than descriptive statistics. Table 4.1 shows the different types of questions covered in parts 2 and 3 of the questionnaire.

Table 4.2: Types of survey questions

Types of questions	**List of questions**	**Objectives of the questions**
Open-ended questions: space was provided so that the respondents could fill in their answers.	*Part 2*: 2.8	• To establish the level of awareness and CI practices in SMEs.
Closed-ended or structured questions		
List questions: A list of options was provided from which the respondents could choose.	*Section 2*: 3.2.19, 3.2.20, 3.2.21, 3.2.22 and 3.2.24.	• To establish how SMEs create CI.
Category questions: The respondents were given options from which they could choose	*Section 2*: 3.2.18 and 3.2.23	• To establish the level of awareness and CI practices in SMEs.

one.		• To establish the positioning of CI in SMEs.
Rating questions: The respondents were asked to rate variables based on a Likert scale from "Strongly disagree" to "Strongly agree".	*Section 1*: 3.1.1 to 3.1.10 *Section 2*: 3.2.1 to 3.2.17	• To determine whether SMEs do strategic planning and the role of CI in the process. • To establish the level of awareness and CI practices in SMEs. • To establish the level of competition among SMEs. • To establish the impact of CI on the competitive advantage of SMEs.

The necessary instructions for each question were provided above the question. The estimated time to complete the questionnaire was 15 minutes. This time was estimated based on the feedback provided by the participants in the pilot study. The purpose of a pilot study is to pre-test the questionnaire before it is distributed to the primary participants (Cone & Foster, 2006). Only 13 individuals participated in the pilot study. They were to check for any error, spelling, problem, confusion and misunderstanding. Most of their comments related to spelling and grammar. After receiving feedback from them, changes were made and the questionnaire was ready for distribution.

4.9 DATA COLLECTION

The data collection process began by contacting SMEs whose contact details were available. The SMEs were contacted either by e-mail or by phone. This was done to find out if the SMEs were willing to participate in the survey. Questionnaires were sent via e-mail to the SMEs that had access to e-mail; questionnaires were printed and delivered by hand to the SMEs that did not have access to e-mail or any other means of contact. The questionnaires that were delivered by hand were completed and returned the same day or on an agreed upon date. Since only the owners/CEOs/managers of the SMEs were identified as the appropriate candidates to complete the questionnaires, whoever received the questionnaire was asked to forward it to the relevant person. Although some SMEs indicated they were too busy to complete the questionnaire, others were very keen to participate in the survey. It was easier to collect data from SMEs in the Pretoria CBD than those in other locations. The SMEs in the CBD were easily accessible and most had access to e-mail. Moreover, travelling costs were cheaper in the CBD.

The data collection was conducted over a period of two months, towards the end of 2011. The hand-delivery strategy required a lot of travelling to and from the SMEs' premises.

Questionnaires that were sent via e-mail were followed up either by e-mail or by phone. Once the required number of questionnaires was collected, the data collection was completed. This was followed by coding and the data was captured in an Excel document, cleaned up and exported to SPSS for analysis. The capturing, cleaning and analysis of the data were done over a period of one month, in early 2012.

4.10 RESPONSE RATE

The response rate is a measure of the extent of the representation of the sample respondents (Rubin & Babbie, 2011). Moreover, if a high response rate is achieved, then there is less chance of significant response bias than if a low rate is achieved. Accordingly, Rubin and Babbie (2011) state that a response rate of at least 50% is usually considered adequate for analysis and reporting. Also, a response rate of at least 60% is good while a response rate of 70% is very good.

SMEs in the CTMM were the focus of this study. It was decided that 100 SMEs would be sufficient to fulfil the purpose of this study. With this in mind, 150 questionnaires were distributed to the respondents with the hope that at least 100 -would be returned by the cut-off date. Indeed, 100 usable questionnaires were received by the cut-off date. E-mails and phone calls were used to follow up on the distributed questionnaires. This ensured that the required 100 questionnaires were returned. The response rate was 66.67%.

4.11 RELIABILITY OF THE DATA

Joppe (2000) defines reliability as the extent to which the results are consistent over time; an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced with a similar methodology, the research instrument is considered reliable. Broadly defined, reliability is (1) the stability of measures administered at different times to the same individuals or using the same standard (test–retest reliability), or (2) the equivalence of sets of items from the same test (internal consistency) or of different observers scoring a behaviour or event using the same instrument (inter-rater reliability) (Kimberlin & Winterstein, 2008). Babbie (2007) defines reliability as the quality of the measurement method which suggests that the same results will be reached each time in repeated data collections. Kirk and Miller (1986) identify three types of reliability in quantitative research which relate to: (1) the degree to which a measurement, given repeatedly, remains the same; (2) the stability of a measurement over time; and (3) the similarity of measurements within a given time period.

The most common method of assessing internal consistency reliability estimates is by using the coefficient alpha. Although there are three different measures of coefficient alpha, the most widely used measure is Cronbach's coefficient alpha. Cronbach's coefficient alpha is actually an average of all the possible split-half reliability estimates of an instrument (Henson, 2001; Gregory, 1992; DeVellis, 2006; Crocker & Algina, 1986). It is a reliability coefficient that measures inter-item reliability or the degree of internal consistency or homogeneity between variables measuring one construct or concept (i.e. the degree to which different items measuring the same variable attain consistent results). This coefficient varies from 0 to 1 and a value of 0.6 or less generally indicates unsatisfactory internal consistency reliability (Malhotra, 2004).

To ensure reliability in this study, a Cronbach's coefficient alpha analysis was done. According to O'Leary-Kelly & Vokurka, 1998), coefficients equal to or greater than 0.70 indicate high reliability of the measuring instrument.

4.12 VALIDITY OF THE DATA

Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are (Bashir, Afzal & Azeem, 2008). Furthermore, Kimberlin and Winterstein (2008) argue that validity is the extent to which the interpretations of the results of a test are warranted, which depend on the test's intended use (i.e. measurement of the underlying construct). Joppe (2000) states that researchers generally determine validity by asking a series of questions, and will often look for the answers in the research of others. Moreover, Bashir, Afzal and Azeem (2008) state that researchers rely upon experience and literature to address the issue of validity.

For the purpose of this study, a pilot study was conducted to test the research instrument for validity. The questionnaire was sent to selected individuals for scrutiny. These individuals were asked to look at each question to determine if it measured what it was intended for. These individuals also scrutinised the questionnaire for accuracy of questions.

4.13 ETHICAL CONSIDERATIONS

When conducting research, researchers must do so in as ethically sensitive a manner as possible (Cone & Foster, 2006). Anastas and MacDonald (1994) define research ethics as a special set of principles and rules, written and unwritten, that place particular parameters on the relationship between the researcher and the people who participate in or who may be affected by the research. Moreover, these people include those who are being studied, fellow researchers, and those who may encounter or make use of the products of the research. Cone and Foster (2006) provide the following ethical principles and standards:

- Evaluate the ethical acceptability of the research.
- Asses the degree of risk involved for participants.
- Ensure the ethical conduct of the research by you and others involved in it.
- Obtain a clear, fair, informed and voluntary agreement by participants to participate.
- Avoid deception and concealment unless absolutely necessary and justifiable.
- Respect the participant's right to decline or withdraw from participation at any time.
- Protect the participant from any physical harm, danger or discomfort possibly associated with the research procedures.
- Protect the participant from any emotional harm, danger or discomfort possibly associated with the research procedures.
- Debrief the participant after the data collection has been completed.
- Correct any undesirable consequences to individual participants that result from them participating in the study.
- Maintain strict confidentiality of any information collected about a participant during the research in accordance with agreements reached with the participant while obtaining informed consent.

It is therefore the researcher's responsibility to ensure that the research that is undertaken is ethically acceptable. For the purpose of this research, the above principles and standards were observed throughout the research process. Special attention was given to confidentiality; anonymity; fairness; honesty; protection from emotional and physical harm, danger or discomfort; and avoidance of deception and concealment (see questionnaire in appendix A).

4.14 CONCLUSION

The research methodology should be non-technical and easy for everyone to understand (Tustin et al, 2005). This is because the research methodology should provide sufficient background to appraise the quality of the data and the findings of the research. With this in mind, in this chapter possible approaches to research and the research methodology used in this study were discussed.

Due to the descriptive nature of the research, a survey was conducted using a questionnaire. The questionnaire was designed bearing in mind research ethics and reliability and validity issues. A pilot study was conducted to test the questionnaire. The questionnaire was sent to selected individuals for scrutiny. After gathering comments and suggestions from the individuals who participated in the pilot study, the questionnaire was finalised and sent to SMEs in selected areas of the CTMM. The CTMM was selected for this study not only because it is the capital city of South Africa, but also because it houses over 4000 SMEs.

Moreover, an estimated 85 to 90% of all research in South Africa is conducted in the CTMM (http://www.tshwane.gov.za/AboutTshwane/Pages/City-of-Tshwane-in-a-Nutshell.aspx). To ensure a response rate of 66.67, follow up was done by e-mail and by phone. The received questionnaires were scrutinised to ensure completeness. All the questionnaires that were received were complete. Before the data on the questionnaires were captured, they were coded. Microsoft Excel 2007 was used to capture and clean up the data. The data was then exported to SPSS for analysis.

This chapter started with a brief background to research, after which the purposes of the current study was outlined. Thereafter, the population sample was discussed, followed by the research method, research design and research instrument. The data collection, response rate, reliability and validity of the study were also discussed in this chapter. The chapter concluded with a discussion on ethical considerations. In the next chapter the research results are discussed.

CHAPTER 5: ANALYSIS OF THE RESEARCH RESULTS

5.1 INTRODUCTION

While the research methods were discussed in the previous chapter, the purpose of this chapter is to provide and discuss the analysis of the research results. The primary data for this study was collected by means of a self-administered questionnaire. 100 respondents were drawn using a quota sample. The quota sample was undertaken due to financial and time constraints.

The respondents were drawn from nine different locations in the CTMM: (1) Silverton/Pretoria East, (2) Mabopane, (3) Rosslyn, (4) Garankuwa, (5) the Pretoria CBD, (6) Eesterust, (7) Winterveld, (8) Mamelodi and (9) Atteridgeville (see Table 4.1 in chapter 4 of this dissertation). These areas were chosen to cover both urban and rural SMEs in the CTMM. The urban: rural ratio of the sample was 76:24. The respondents operated in different industrial sectors or subsectors. Due to low travelling cost and SMEs' access to e-mail, it was easier to collect data from the SMEs in the CBD than from the SMEs in other areas. The data was collected from a sample of 100 SMEs. After the data was collected by means of questionnaires, it was coded before it was captured on an MS Excel 2010 program. It was then cleaned up to ensure that there were no irregularities and transferred to the SPSS program.

As indicated in the methodology chapter (chapter 4), descriptive statistics (mean, median, standard deviation and variance) were used for this study. Frequency analyses and distributions (frequency tables and bar charts) were also used. Furthermore, cross-tabulations and correlations were performed. Since a quota (non-probability) sample was used, it was not possible to generalise or to use inferential statistical techniques. The reliability of the data was tested using the Cronbach coefficient alpha.

The discussion begins with an explanation of the results on enterprise characteristics. This is followed by an explanation of the results on strategic management and the results on CI. Thereafter, cross-tabulations and correlations are discussed. Lastly, the reliability of the data is discussed.

5.2 ENTERPRISE INFORMATION

The aim of this section is to describe the characteristics of the SMEs that participated in this research. For the purpose of this study, 10 characteristics were deemed valuable. These were: (1) form of business enterprise; (2) business sector or subsector; (3) number of employees; (4) location of the business; (5) years of business operation; (6) total annual turnover (sales); (7) global market exposure; (8) the position of the person who responded on behalf of the enterprise; (9) his or her educational level; and (10) his or her years of working experience.

The purpose of question 2.1 (see appendix A) was to discover the form of enterprise that participated in the survey. Four forms of enterprises were identified from the literature and listed as options on the questionnaire. These were (1) sole proprietorship, (2) partnership, (3) close corporation and (4) company. From all the respondents, only one respondent (1%) was a sole proprietorship; 14 respondents (14%) were partnerships; 55 (55%) were close corporations; and 30 (30%) were companies. This information is depicted in figure 5.1 below.

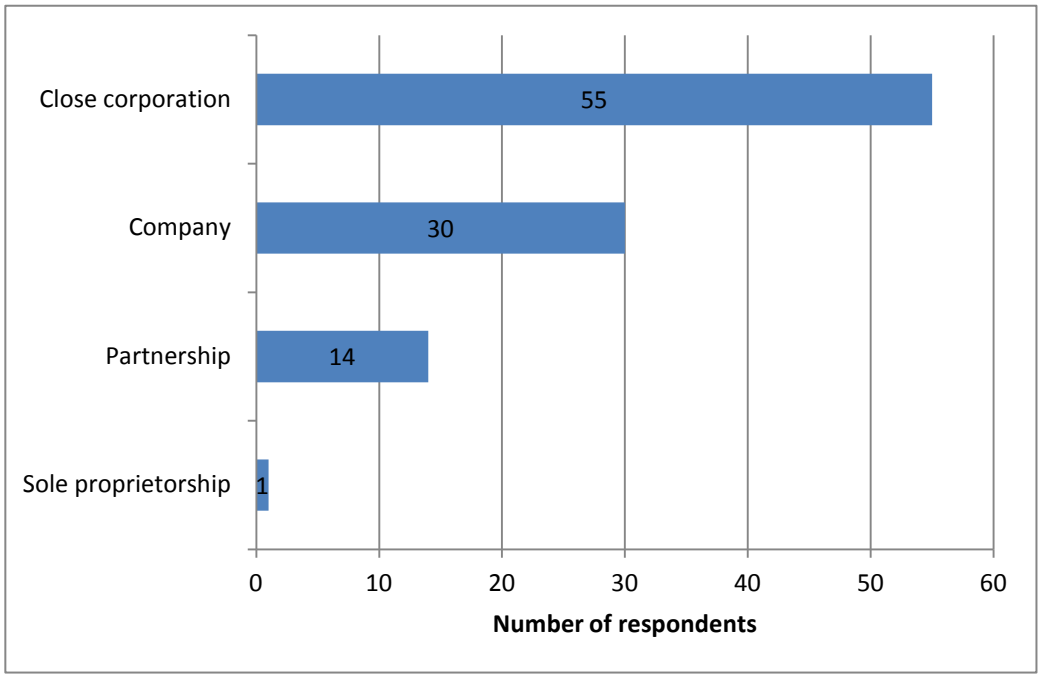

Figure 5.1: Form of business enterprise

Question 2.2 related to the business sector or subsector in which the respondents operated. 11 business sectors or subsectors were identified from the literature. Only two additional industries were added by respondents as others: the cleaning industry (1%) and the media and marketing industry (1%). The remainder of the respondents were spread as follows: finance and business services (8%); catering, accommodation and other trade (19%); retail and motor trade, and repair services (23%); electricity, gas and water (2%); community, social and personal services (18%); wholesale trade, commercial agents and allied services (5%); construction (8%); and manufacturing (12%). The average spread of respondents (mean response in figure 5.2) in different industries was calculated as 9.09. The mean response in the different industries is represented by a dotted line in figure 5.2. Four industries had a higher than average response: (1) retail and motor trade, and repair services; (2) catering, accommodation and other trade; (3) transport, storage and communications; and (4) manufacturing. None of the respondents were in mining and quarrying and in agriculture. The information on the business sectors or sectors is depicted in figure 5.2 below.

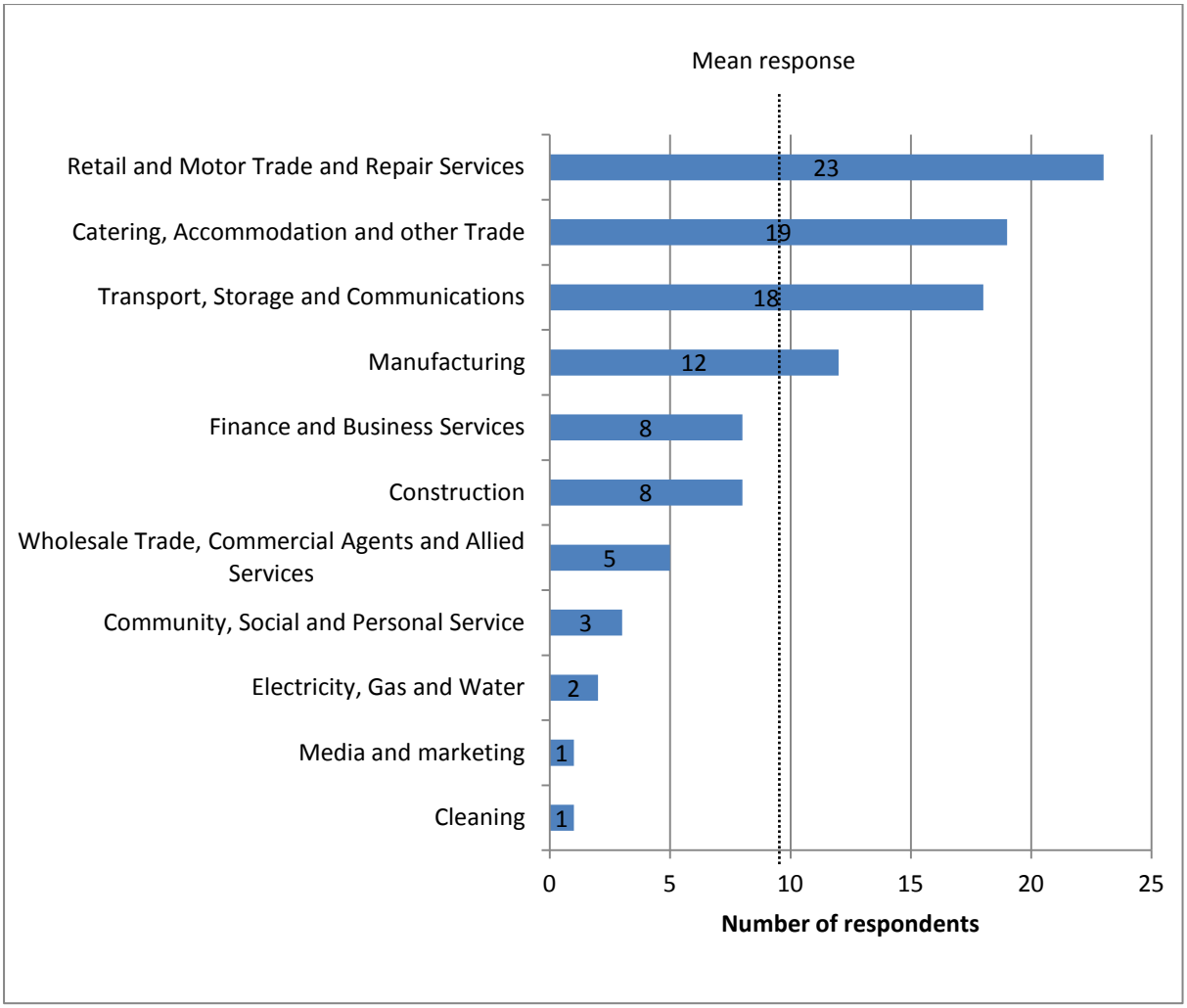

Figure 5.2: Business sector or subsector

Question 2.3 related to the number of employees each respondent had. This question had five scales: 1 to 5 employees; 6 to 10 employees; 11 to 20 employees; 21 to 50 employees and 51 to 500 employees. None of the respondents had 51 to 500 employees, 15 (15%) of the respondents had 21 to 50 employees, 30 (30%) of the respondents had 11 to 20 employees, 36 (36%) of the respondents had 6 to 10 employees and 19 (19%) had 1 to 5 employees. This means that most of the respondents were very small businesses. Figure 5.3 shows the business sectors or subsectors.

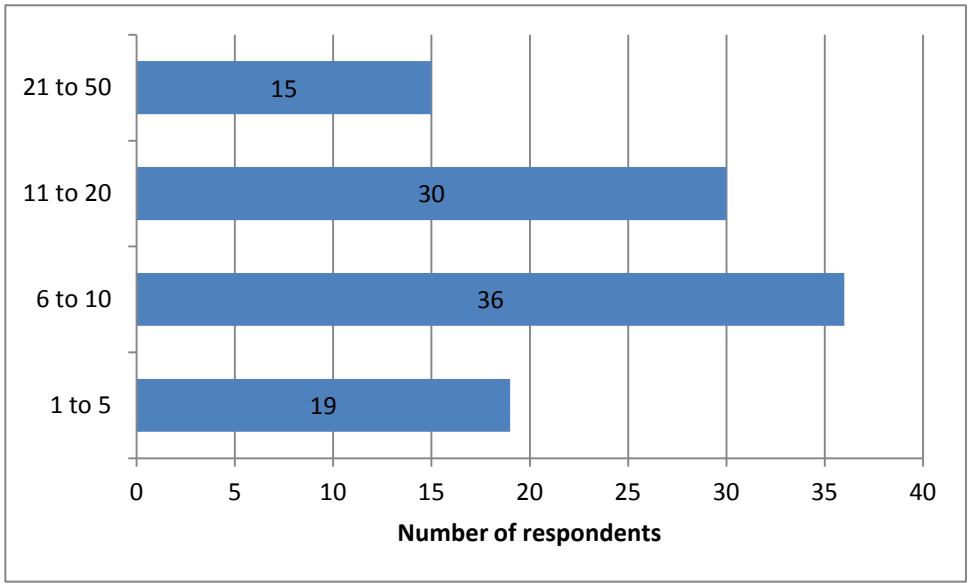

Figure 5.3: Number of employees

The aim of question 2.4 (see appendix A) was to establish the location from which the respondents operated their businesses. For the purpose of this study, nine locations were identified. The spread of the respondents in the different locations was as follows: Silverton/Pretoria East (17%); Mabopane (6%); Rosslyn (6%); Garankuwa (6%); the Pretoria CBD (34%); Eesterust (7%); Winterveld (7%); Mamelodi (8%); and Atteridgeville (9%). It is therefore clear that the majority of the respondents operated their businesses in the Pretoria CBD. The urban locations are denoted in blue (Pretoria, Silverton/Pretoria East, Atteridgeville, Mamelodi and Rosslyn) and the rural ones in yellow (Eesterust, Winterveld, Mabopane and Ga-rankuwa) in figure 5.4 below.

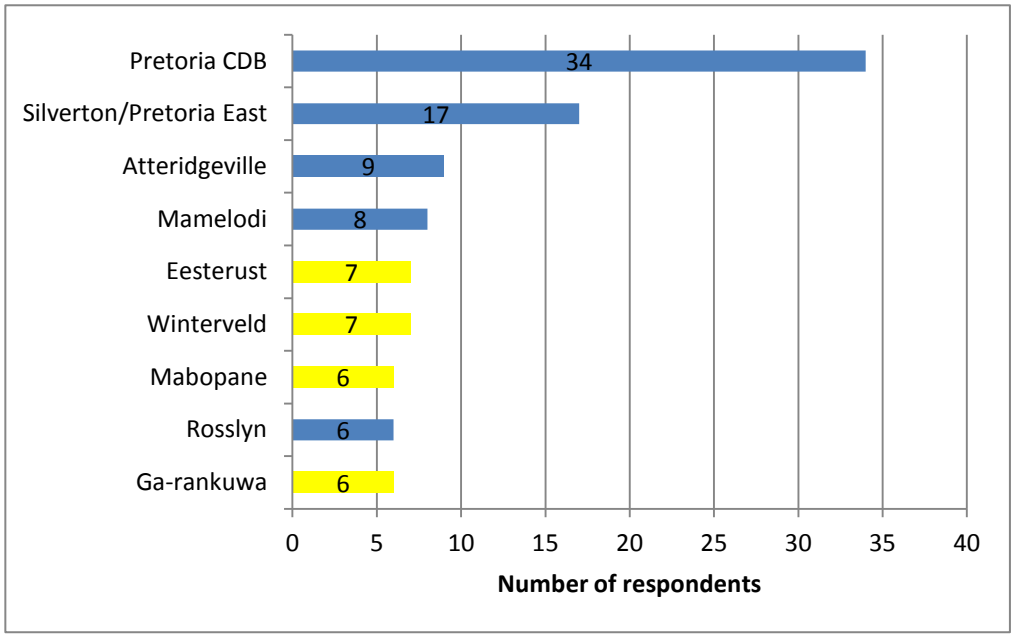

Figure 5.4: Business location

Question 2.5 related to the number of years the respondents had been in operation. Four scales were used: less than 1 year, 1 to 2 years, 3 to 5 years and 6 or more years. 50 (50%) operated for 6 or more years, 39 (39%) operated for 3 to 5 years and only 11 (11%) operated for 1 to 2 years. None of the respondents operated for less than 1 year. The majority of the respondents operated for many years. Figure 2.5 shows the information on the businesses' years of operation.

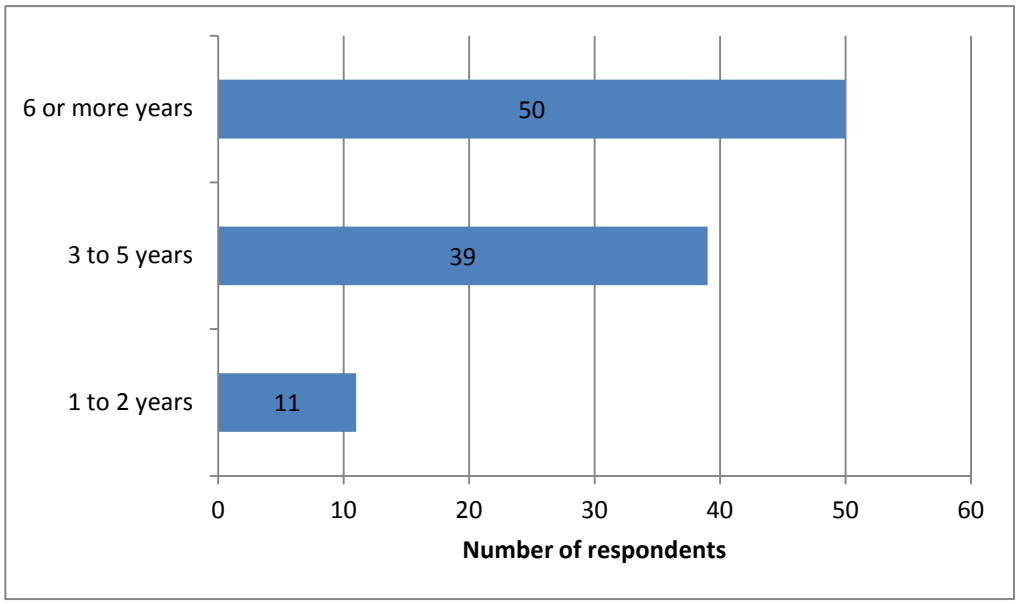

Figure 5.5: Years of business operation

Question 2.6 was aimed at establishing the total annual turnover each respondent made. Seven scales were used, ranging from less than R1m to R64m. Only two (2%) of the respondents made a turnover from R6m to R10m, 48 (48%) made a turnover between R1m and R5m, and the rest (50%) made a turnover of less than R1m. The information on turnover is shown in figure 5.6 below.

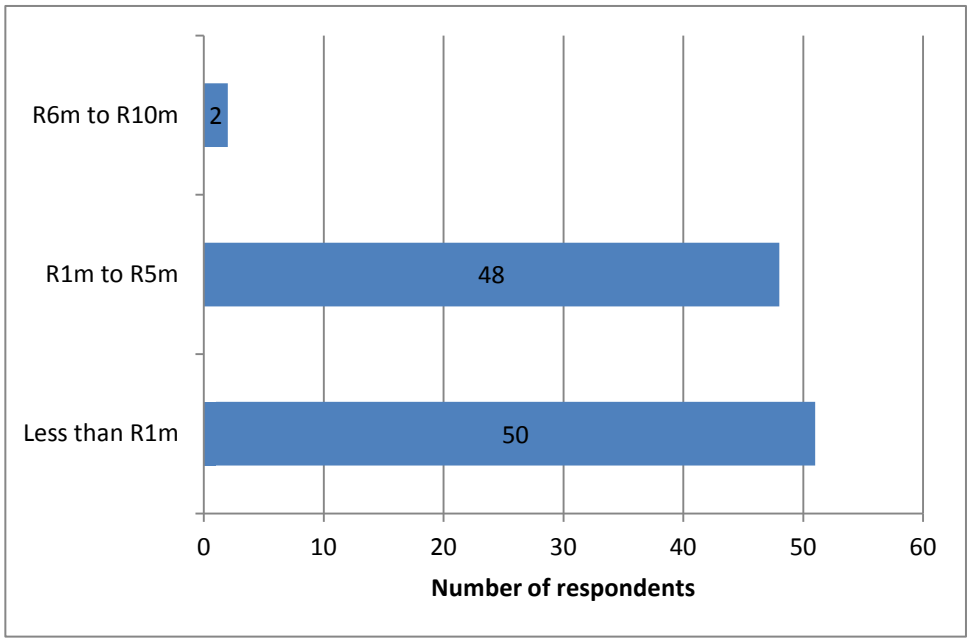

Figure 5.6: Total annual turnover

The purpose of question 2.7 was to find out the global exposure of the respondents. 10 global markets were identified for the purpose of this study. All the respondents were exposed to the African market. Only two respondents were exposed to other global markets: one respondent was exposed to all the markets while, the other was only exposed to India, Asia, South America and North America. The later was in the transport, storage and communications business sector; whereas the former was in the catering, accommodation and other trade business sector. Figure 5.7 shows the global market exposure of the respondents.

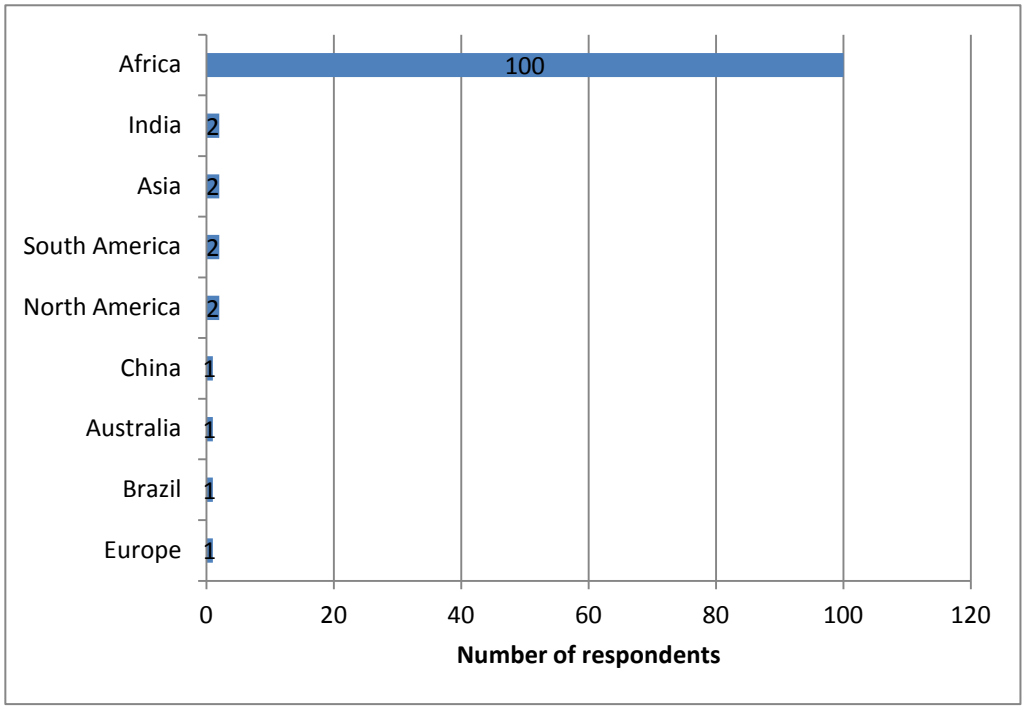

Figure 5.7: Global market exposure

The aim of question 2.8 was to discover the position of the person who completed the questionnaire on behalf of the enterprise. For the purpose of this study, only people in management positions were asked to complete the questionnaire. 14 positions were identified by the respondents: sales manager (6%); purchasing manager (1%); owner (29%); operation manager (6%); marketing manager (8%); managing director (12%); manager (15); human resource manager (10%); director (1%); creative director (1%); chairperson (1%); CEO (7%); and accounts manager (1%). The average spread of respondents (mean response in figure 5.8) in the different industries was calculated as 7.14. The mean response of the different positions is represented by a dotted line in figure 5.8. Five positions had a higher than average response: owner, manager, managing director, general manager and marketing manager. This information is shown in figure 5.8 below.

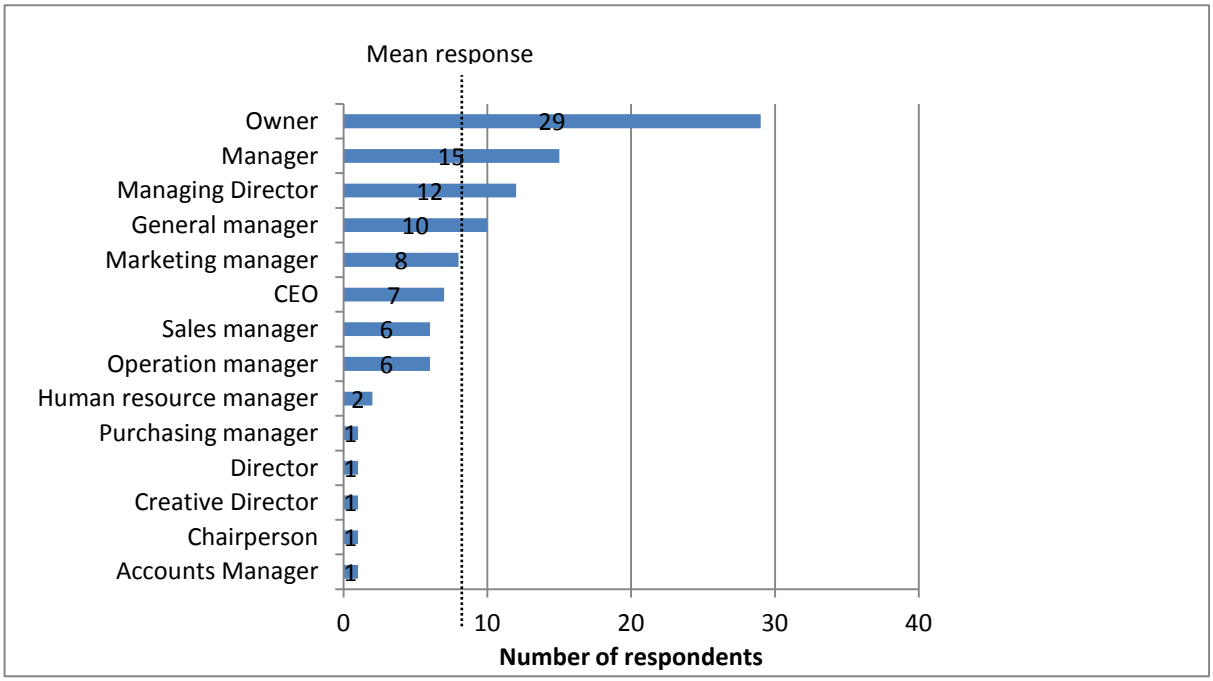

Figure 5.8: Respondent's position in the enterprise

Question 2.9 was intended to establish the level of education of the person who completed the questionnaire. Five scales were identified: grade 8 to 10, grade 11 to 12, undergraduate diploma or degree, honours degree, and master's or doctoral degree. Only five (5%) of the respondents had a master's or doctoral degree, 21 (21%) had an honours degree, 47% had an undergraduate diploma or degree, and 27 (27%) had completed grade 11 or 12. Figure 5.9 shows the information on their education levels.

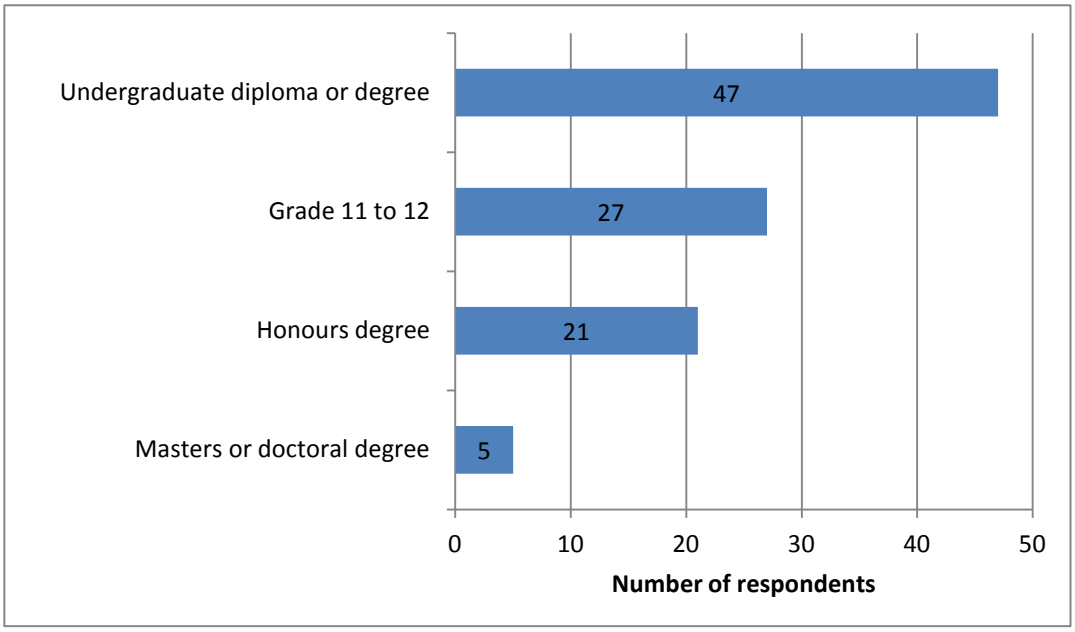

Figure 5.9: Respondents' educational level

The purpose of question 2.10 was to verify the number of years of working experience of the person who completed the questionnaire. Four scales were used: less than 1 year, 1 to 2 years, 3 to 5 years, and 6 or more years. Only one (1%) of the respondents had less than one year working experience, four (4%) had 1 to 2 years working experience, 50 (50%) had 3 to 5 years working experience, and 40 (45%) had 6 or more years working experience. The information on the respondents' years of working experience is shown in figure 5.10 below.

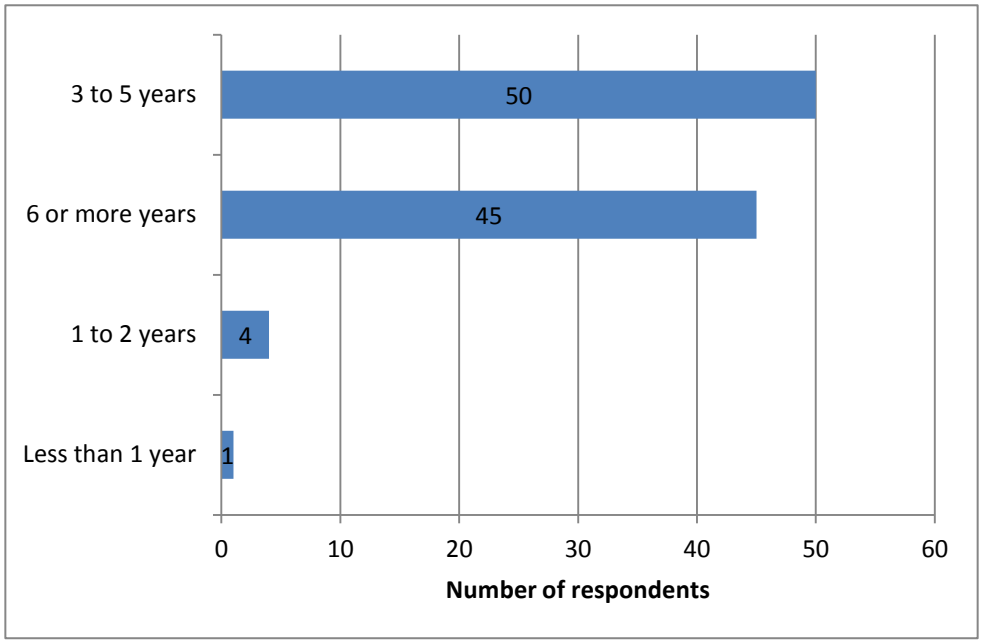

Figure 5.10: Respondents' years of working experience

5.3 STRATEGIC MANAGEMENT

Section 3.1 of part 3 (see appendix A) was to establish an understanding of the strategic management activities that happen in the enterprises. Specifically, section 3.1 of part 3 of the questionnaire was designed to determine the extent to which SMEs performed strategic planning.

5.3.1 Discussion of the results

The purpose of question 3.1.1 was to establish whether the respondents had a formal strategic plan in place. The mean for this question was 3.93 and the standard deviation was 0.832. According to Kruger (2010:181), the standard deviation identifies the extent to which respondents provide similar responses to a question. The greater the standard deviation, the greater the spread of responses and the less agreement there is among the respondents. The lower standard deviation for this question indicates that the respondents agreed with the mean response. Therefore, most of the respondents agreed that they had a formal strategic plan. This information is depicted in figure 5.11.

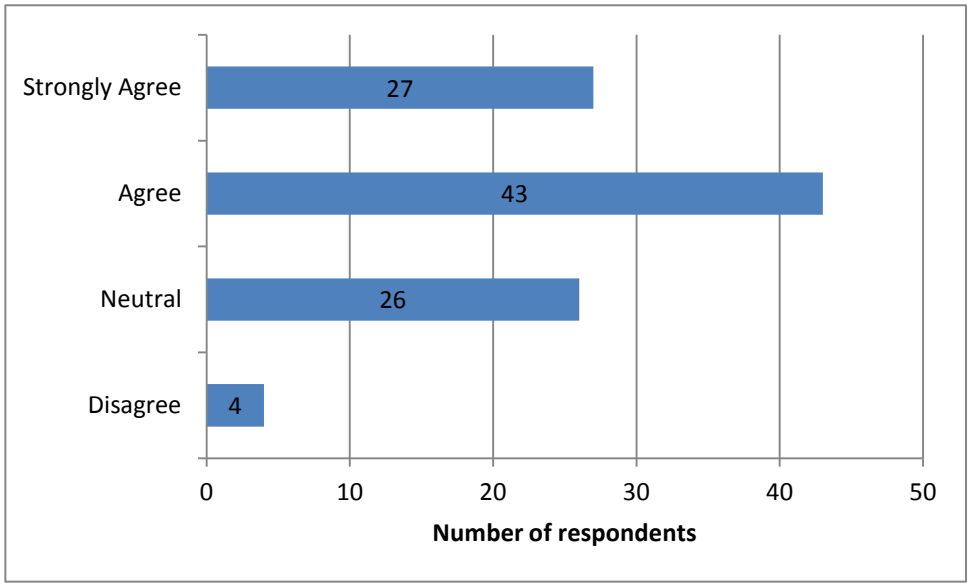

Figure 5.11: The use of a formal strategic plan

Question 3.1.2 was intended to find out whether the respondents' strategic management process was formalised. The mean and standard deviation for this question were 3.35 and 0.989 respectively. The lower standard deviation indicates that most of the respondents' responses coincided with the mean. Although 36 (36%) respondents opted to be neutral, 44 (44%) respondents agreed that they had a formalised strategic management process. However, 20 (20%) respondents disagreed. Accordingly, the majority of the respondents agreed that they had a formal strategic management process. This is shown in figure 5.12.

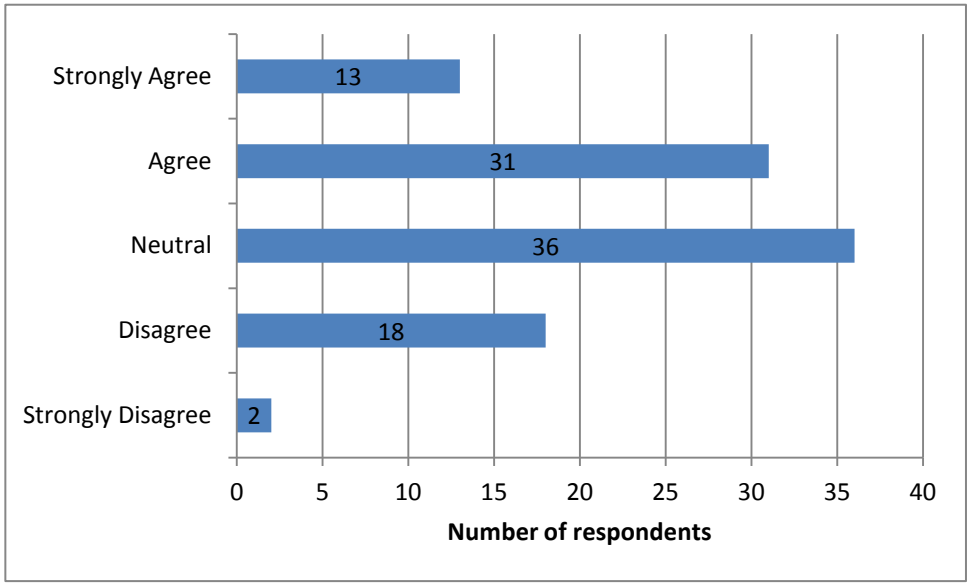

Figure 5.12: The use of a strategic management process

The aim of question 3.1.3 was to ascertain whether information was valuable for decision making. The mean for this question was 4.84 and the standard deviation was 0.368. The relatively low standard deviation indicates that there was less spread of responses. Furthermore, this means that the majority of the respondents strongly agreed that information was valuable for decision making. Figure 5.13 clearly shows that all the respondents either agreed or strongly agreed that information was valuable for decision making.

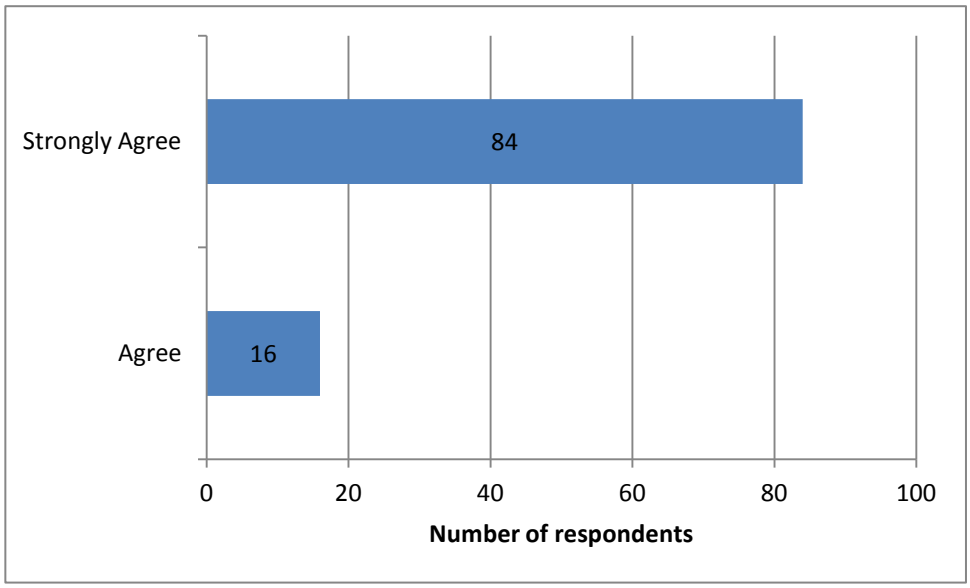

Figure 5.13: The value of information in decision making

The purpose of question 3.1.4 was to determine whether the respondents were aware of the weaknesses and strengths of their enterprises. The mean and standard deviation for this question were 4.59 and 0.552 respectively. The lower standard deviation indicates that the majority of the respondents' responses coincided with the mean. This means that almost all the respondents agreed with the statement. Figure 5.14 clearly shows that the majority of the respondents agreed with the statement.

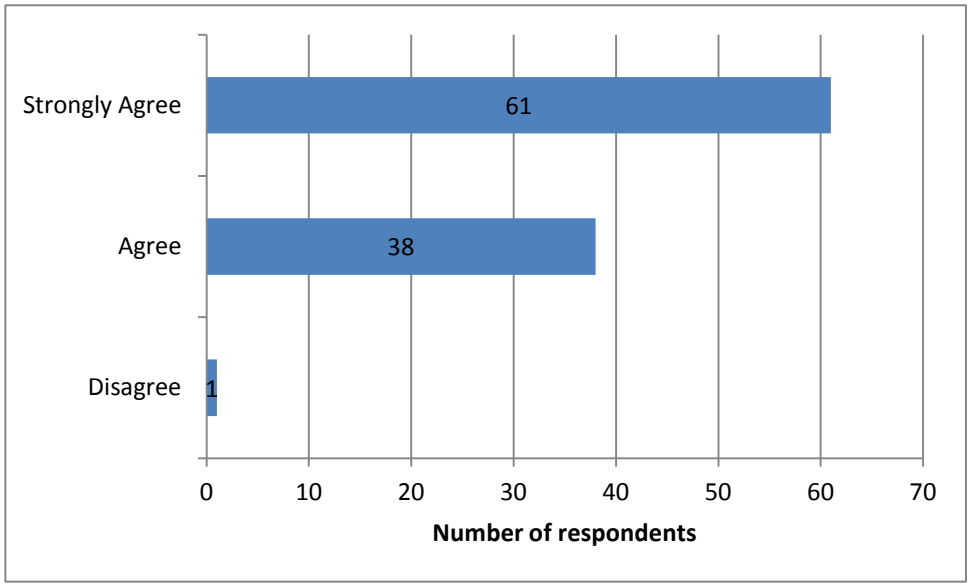

Figure 5.14: Awareness of the enterprise's weaknesses and strengths

Question 3.1.5 was meant to find out whether the respondents were aware of their opportunities and threats. The mean for this question was 4.63 and the standard deviation was 0.485. The lower standard deviation indicates that there was less spread of the responses to this question. Also, it means that the majority of the respondents concurred with the mean, which in turn means that they strongly agreed with the statement. Figure 5.15 clearly shows that the respondents either agreed or strongly agreed that they were aware of their opportunities and threats.

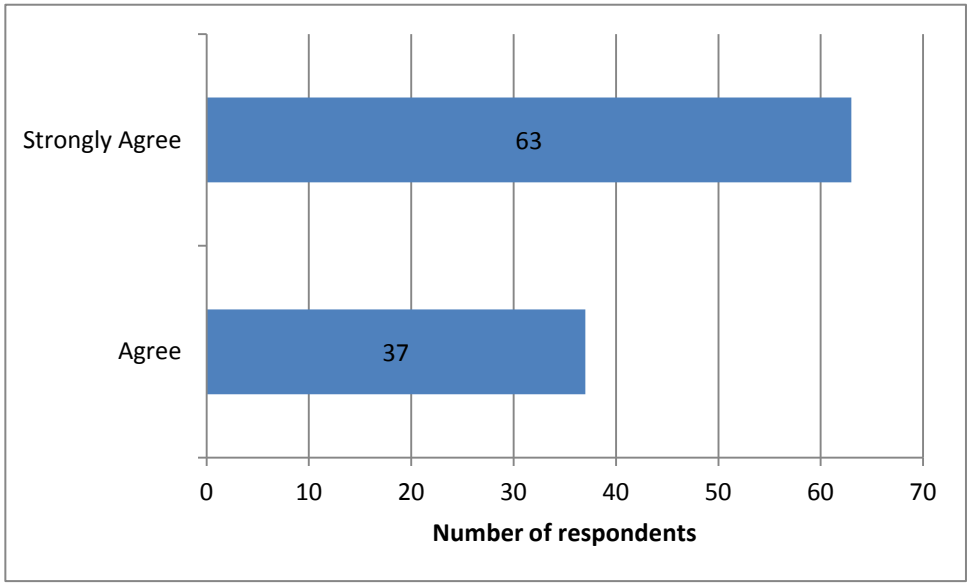

Figure 5.15: Awareness of opportunities and threats

Question 3.1.6 was intended to ascertain whether the respondents analysed their competitors. The mean and standard deviation of 4.61 and 0.584 respectively indicate that most of the respondents strongly agreed with the statement. This means that almost all the respondents analysed their competitors. The results of this question are shown in figure 5.16 below.

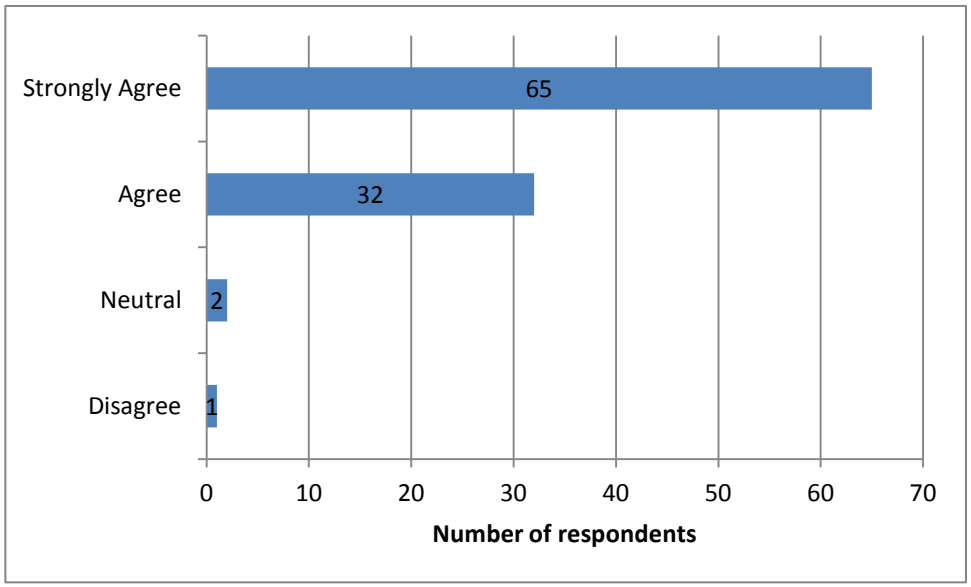

Figure 5.16: Analysis of competitors

The objective of question 3.1.7 was to ascertain whether the respondents performed planning, organising, leading and control. There was less spread of responses for this question and it is therefore no wonder that the standard deviation was 0.645. Moreover, the lower standard deviation indicates that the majority of the respondents concurred with the mean of 4.26. This means that they agreed that they performed planning, organising, leading and control. Figure 5.17 shows the results for this question.

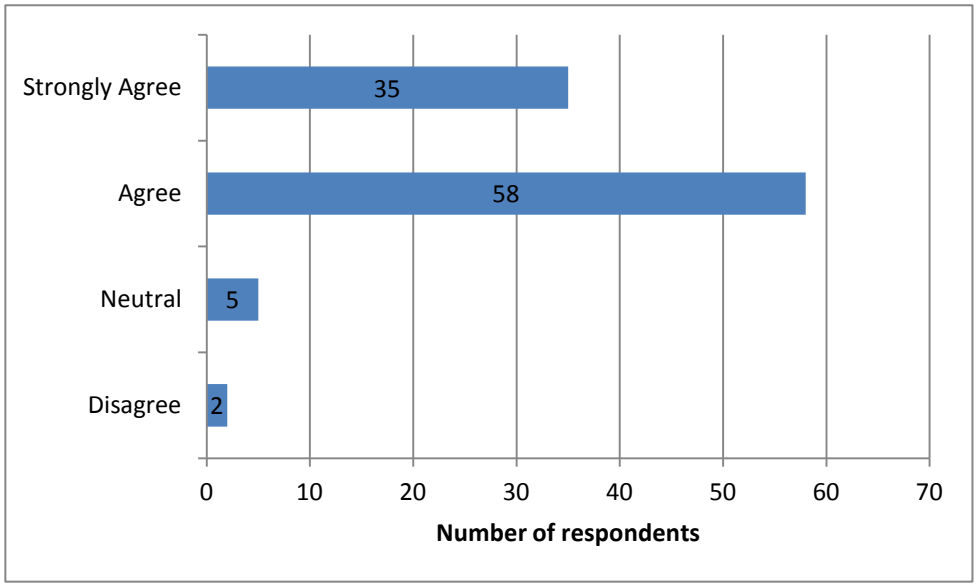

Figure 5.17: Performance of planning, organising, leading and control

The reason for question 3.1.8 was to determine whether the respondents had a formalised decision-making process. The high standard deviation of 1.226 indicates that there was more spread of the responses to this question. Furthermore, it indicates that few respondents concurred with the mean of 3.47. Although several respondents (19%) chose to be neutral, 24 (24%) respondents disagreed with this statement. However, the majority of the respondents (57%) indicated that they had a formalised decision-making process. Accordingly, most of the respondents had a formalised decision-making process. This is shown in figure 5.18.

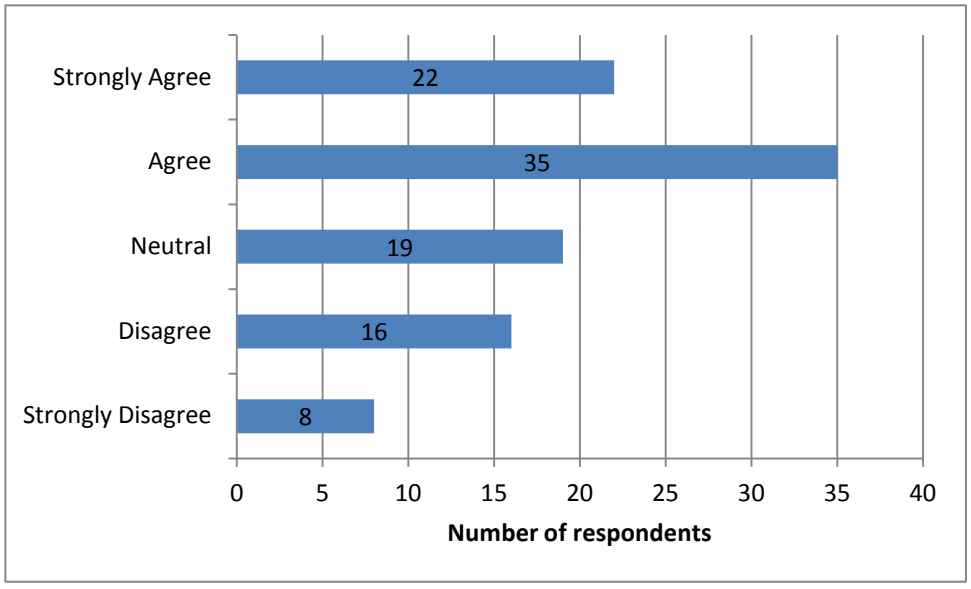

Figure 5.18: Use of a formalised decision-making process

Question 3.1.9 was meant to establish whether the respondents had implemented their chosen strategies. The lower standard deviation of 0.584 indicates that there was less spread of the responses to this question. Moreover, it shows that majority of the respondents' responses coincided with the mean of 4.27. This means that nearly all the respondents agreed that they had implemented their chosen strategies. This information is shown in figure 5.19.

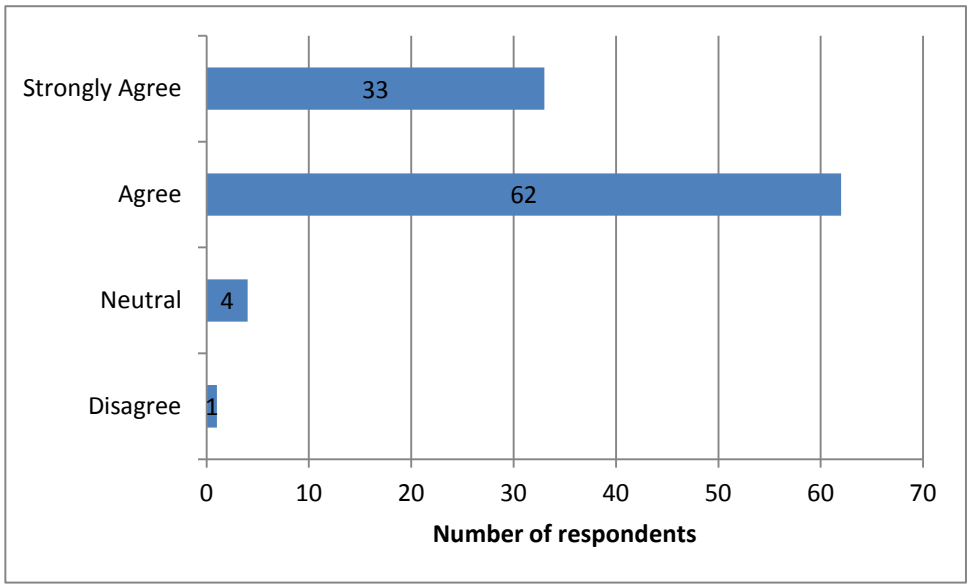

Figure 5.19: Implementation of chosen strategies

Question 3.1.10 was aimed at finding out if the respondents monitored the performance of their strategies. With the standard deviation of 0.672, there was less spread of the responses to this question. This means that most of the respondents agreed with the mean of 4.15. Therefore, the majority of the respondents agreed that they monitored the performance of their strategies. This is depicted in figure 5.20.

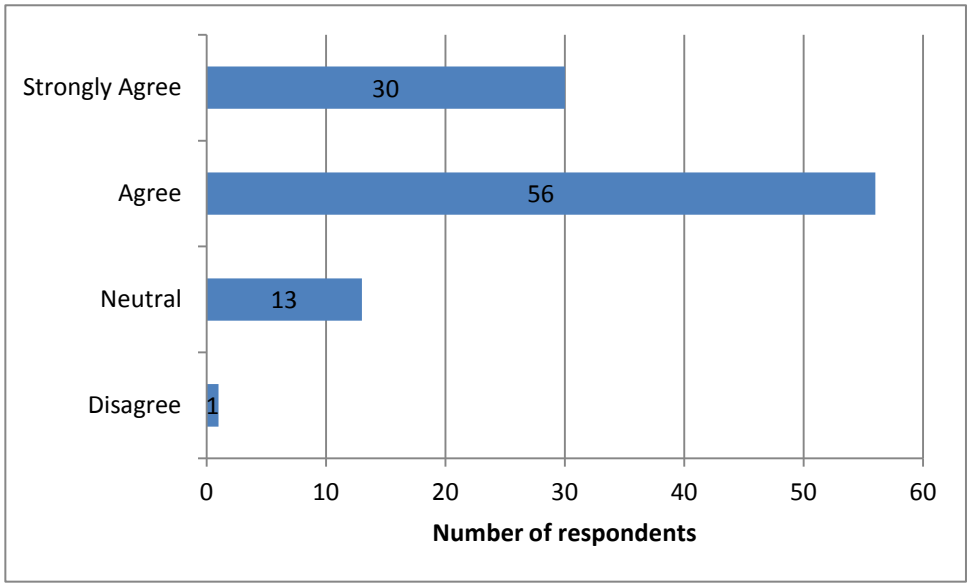

Figure 5.20: Monitoring the performance of strategies

5.3.2 Ranking the variables

The aim with section 3.1 was to establish the respondents' understanding of strategic management and its practice. 10 variables were identified to help in ascertaining the respondents' understanding and practice of strategic management. Tables 5.1 and 5.2 show the variables which the respondents considered less and more valuable.

The variables are sorted according to the mean scores in table 5.1. The table clearly shows that the respondents agreed that information was valuable for decision making. Furthermore, the table shows that the respondents agreed that they were aware of their opportunities and threats. They also confirmed that they analysed their competitors. The table indicates that the respondents were unsure whether they had a formalised strategic management process and decision-making process.

Table 5.1: Variables sorted by mean

SECTION 1: STRATEGIC MANAGEMENT			
Variable	**Question**	**Mean**	**Standard deviation**
3.1.3	Information is valuable for decision making.	4.84	0.368
3.1.5	We are aware of our opportunities and threats.	4.63	0.485
3.1.6	We analyse our competitors.	4.61	0.584
3.1.4	We are aware of our weaknesses and strengths.	4.59	0.552
3.1.9	We implement our chosen strategies.	4.27	0.584
3.1.7	We perform planning, organising, leading and control.	4.26	0.645
3.1.10	We monitor the performance of our strategies.	4.15	0.672
3.1.1	We have a formal strategic plan.	3.93	0.832
3.1.8	We have a formalised decision-making process.	3.47	1.226
3.1.2	Our strategic management process is formalised.	3.35	0.989

In table 5.2 the variables are sorted by standard deviation scores which indicate the spread of the responses to the questions and the respondents' level of agreement. The table clearly shows that there was a high spread of responses to question 3.1.8 and the majority of the respondents was unsure whether they had a formalised decision-making process. The table also shows that there was less spread of responses to question 3.1.3 and that nearly all the

respondents agreed that information was valuable for decision making. It is worth mentioning that nine out of 10 (90%) questions had less spread of responses and that seven out of 10 (70%) questions had a mean of more than four. Moreover, the average mean and standard deviations were 4.21 and 0.6937 respectively. This means that there was less spread of responses to most of the questions and that the majority of the respondents agreed with most of the statements in this section.

Table 5.2: Variables sorted by standard deviation

SECTION 1: STRATEGIC MANAGEMENT			
Variable	**Question**	**Mean**	**Standard deviation**
3.1.8	We have a formalised decision-making process.	3.47	1.226
3.1.2	Our strategic management process is formalised.	3.35	0.989
3.1.1	We have a formal strategic plan.	3.93	0.832
3.1.10	We monitor the performance of our strategies.	4.15	0.672
3.1.7	We perform planning, organising, leading and control.	4.26	0.645
3.1.6	We analyse our competitors.	4.61	0.584
3.1.9	We implement our chosen strategies.	4.27	0.584
3.1.4	We are aware of our weaknesses and strengths.	4.59	0.552
3.1.5	We are aware of our opportunities and threats.	4.63	0.485
3.1.3	Information is valuable for decision making.	4.84	0.368

5.4 COMPETITIVE INTELLIGENCE

Section 3.1 of part 3 (see appendix A) of the questionnaire was designed to establish the SMEs' understanding of CI and their CI awareness and practice. Moreover, the questions in this section were specifically designed to determine the extent to which the SMEs practiced CI, created CI, the level of competition and whether CI gave the SMEs a competitive advantage.

5.4.1 Discussion of the results

The aim of question 3.2.1 (see appendix A) was to determine whether the respondents were aware of CI. The mean was calculated as 4.12 and the standard deviation was 0.671. The lower standard deviation indicates that there was less spread of responses to this question. This means that most of the respondents concurred with the mean. The mean of 4.12 indicates that nearly all of the respondents indicated that they were aware of CI. This is clearly shown in figure 5.21.

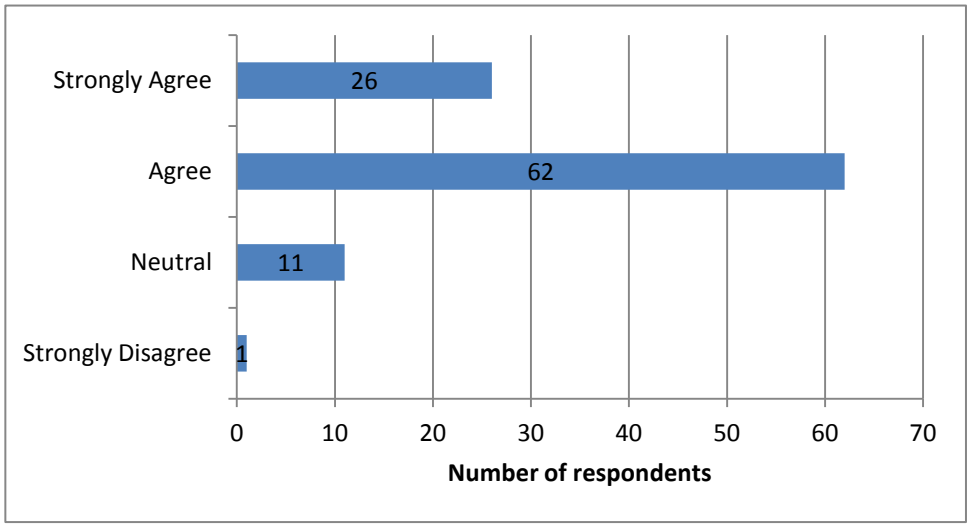

Figure 5.21: Awareness of competitive intelligence

The purpose of question 3.2.2 was to establish whether the respondents' employees understood what CI is. The standard deviation of 0.779 indicates that there was less spread of responses to this question and that most of the respondents concurred with the mean of 3.14. Although 50 (50%) of the respondents opted to be neutral, 18 (18%) disagreed with the statement. However, 32 (32%) of the respondents agreed that their employees understood what CI is. Therefore, the mean of 3.14 signifies that most respondents' employees understand what CI is. Figure 5.22 shows the results for this question.

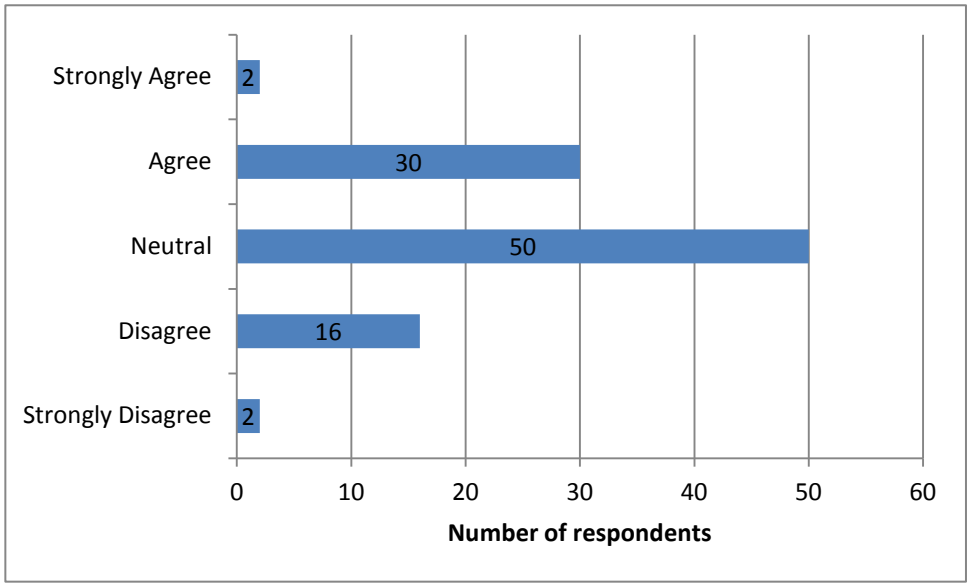

Figure 5.22: Employees' understanding of competitive intelligence

Question 3.2.3 was intended to determine whether the respondents practiced CI in their businesses. The standard deviation of 0.687 reveals that there was less spread of responses to the question. Moreover, it indicates that more respondents concurred with the mean of 4.45. The mean reveals that the majority of the respondents agreed that they practice CI in their enterprises. This is clearly shown in figure 5.23.

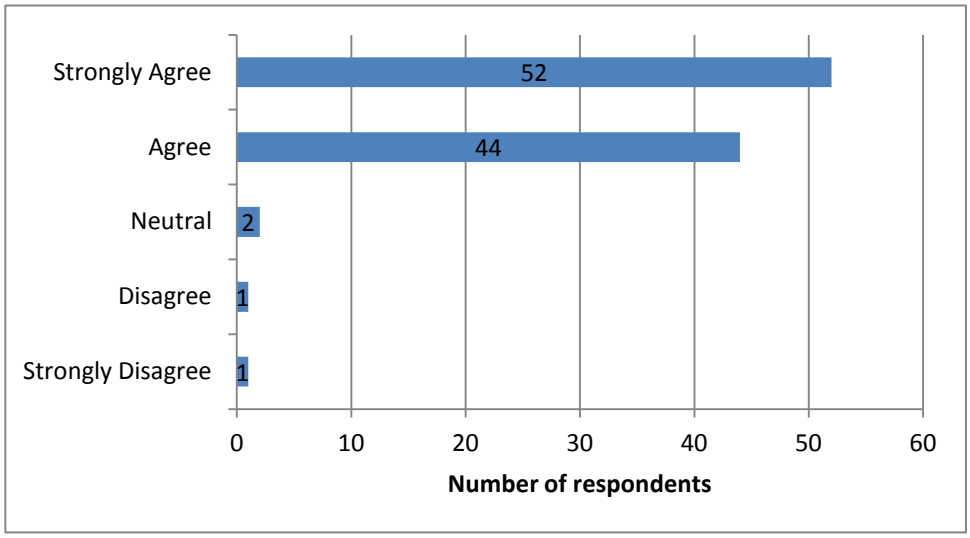

Figure 5.23: Practicing competitive intelligence within the enterprise

The reason behind question 3.2.4 was to ascertain whether the respondents' managers supported CI practices. The mean and standard deviation for this question were 3.63 and 0.761 respectively. The standard deviation indicates that there was less spread of responses to this question. Also, it indicates that most of the respondents concurred with the mean. The mean indicates that most of the respondents had their managers' support for CI practice. This is shown clearly in figure 5.24.

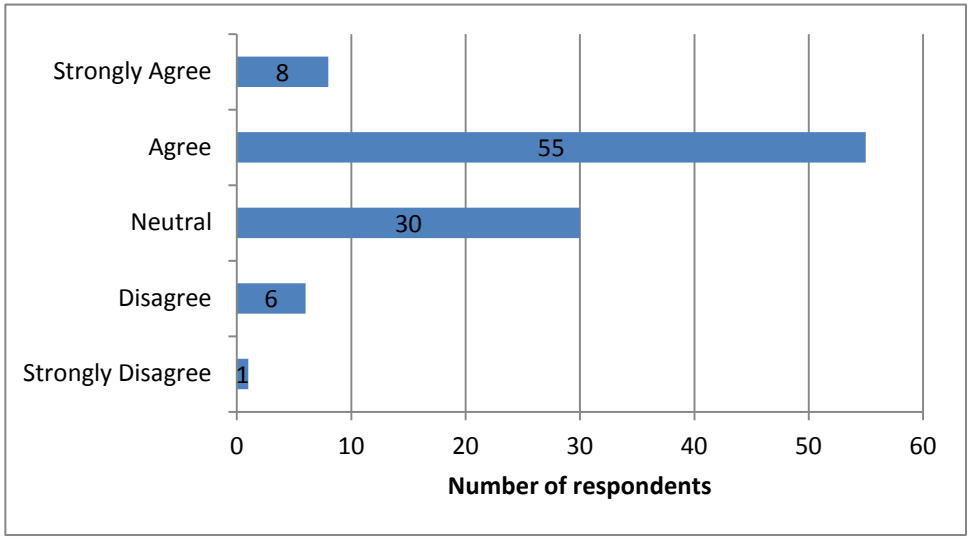

Figure 5.24: Managerial support of competitive intelligence practice

Question 3.2.5 was designed to determine whether the respondents had a formalised CI function. The higher standard deviation of 1.143 indicates that there was more spread of responses to this question. Also, it points out that fewer respondents concurred with the mean. The mean of 2.16 indicates that most of the respondents disagreed with the statement. This means that most of the respondents did not have a formalised CI function. This is shown in figure 5.25.

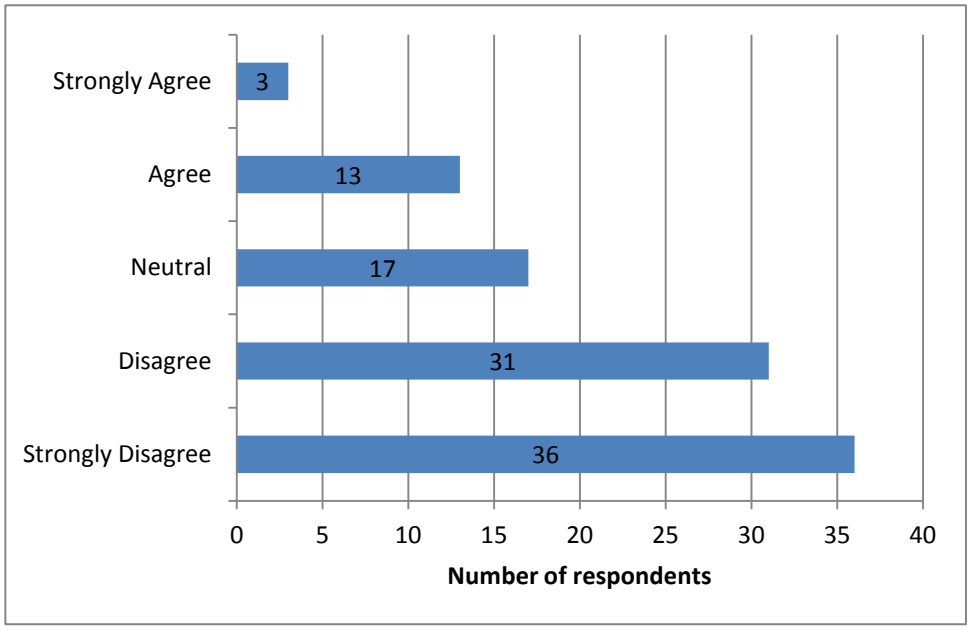

Figure 5.25: A formal competitive intelligence function within the enterprise

Question 3.2.6 was aimed at discovering whether the respondents collected information about their competitors and analysed it. The low standard deviation of 0.659 reveals that there was less spread of responses to this question. Also, it points out that most of the respondents agreed with the mean. The mean of 4.64 indicates that the majority of the respondents agree that they collected information about their competitors and analysed it. Figure 5.26 clearly shows the results for this question.

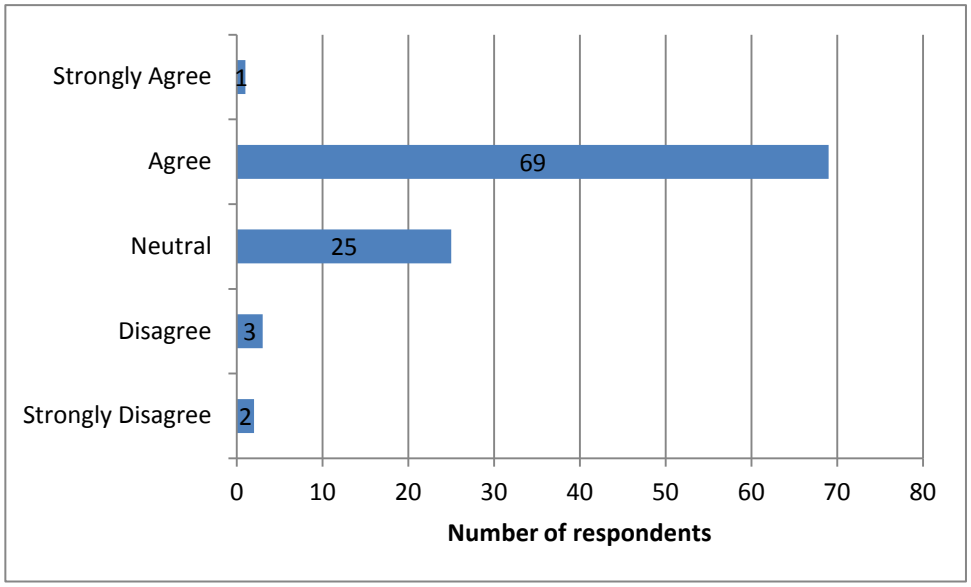

Figure 5.26: Collection and analysis of competitors' information

The reason behind question 3.2.7 was to ascertain whether the respondents had a formalised CI process. The slightly higher standard deviation of 1.078 indicates that there was more spread of responses to this question. Moreover, it reveals that fewer respondents concurred with the mean. The mean of 2.01 indicates that most of the respondents disagreed with the statement, which means that they did not have a formalised CI process. This is revealed in figure 5.27.

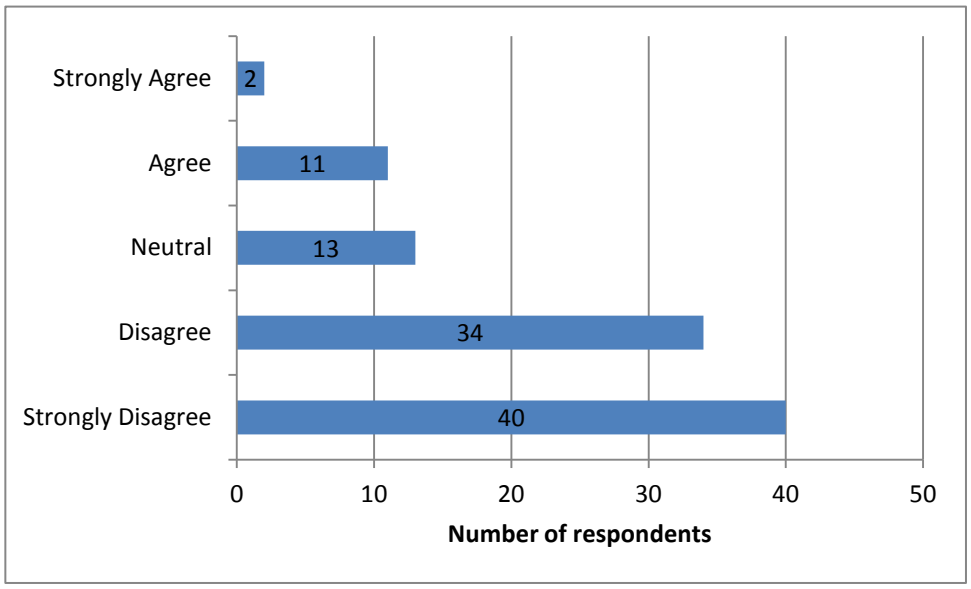

Figure 5.27: A formalised competitive intelligence process

The purpose of question 3.2.8 was to establish if the respondents gathered CI for decision making. The low standard deviation of 0.716 indicates that there was less spread of responses to this question and that more respondents concurred with the mean. The mean of 4.65 signifies that nearly everyone agreed with the statement. This means that they gathered CI for decision making. This is shown in figure 5.28 below.

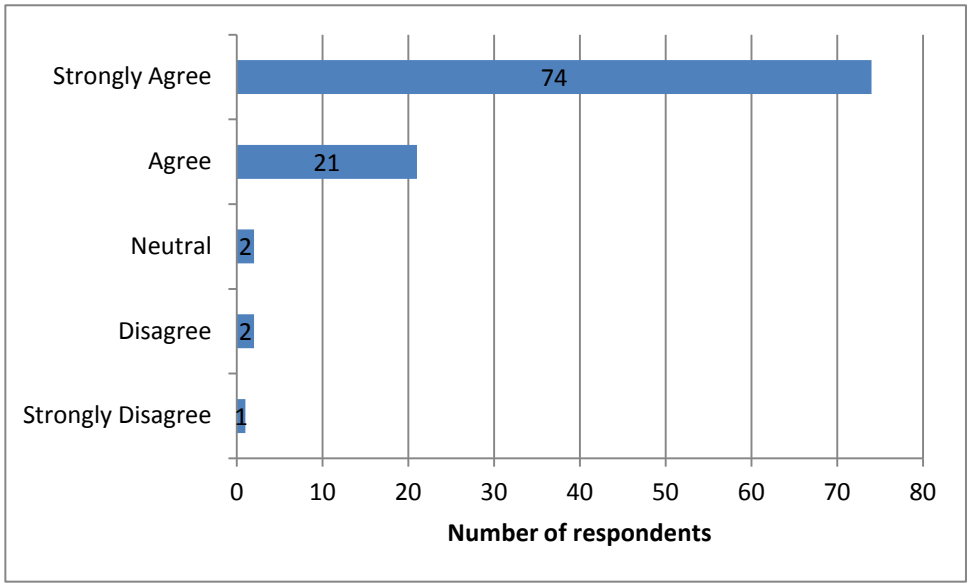

Figure 5.28: Gathering of competitive intelligence for decision making

Question 3.2.9 was designed to ascertain whether the respondents knew the prices of their competitors' products or services. The mean and the standard deviation for this question were 4.48 and 0.522 respectively. The low standard deviation indicates that there was less spread of responses to this question and that most of the respondents' responses coincided with the mean. The mean shows that nearly all of the respondents agreed that they knew the prices of their competitors' products or services. This is displayed in figure 5.29.

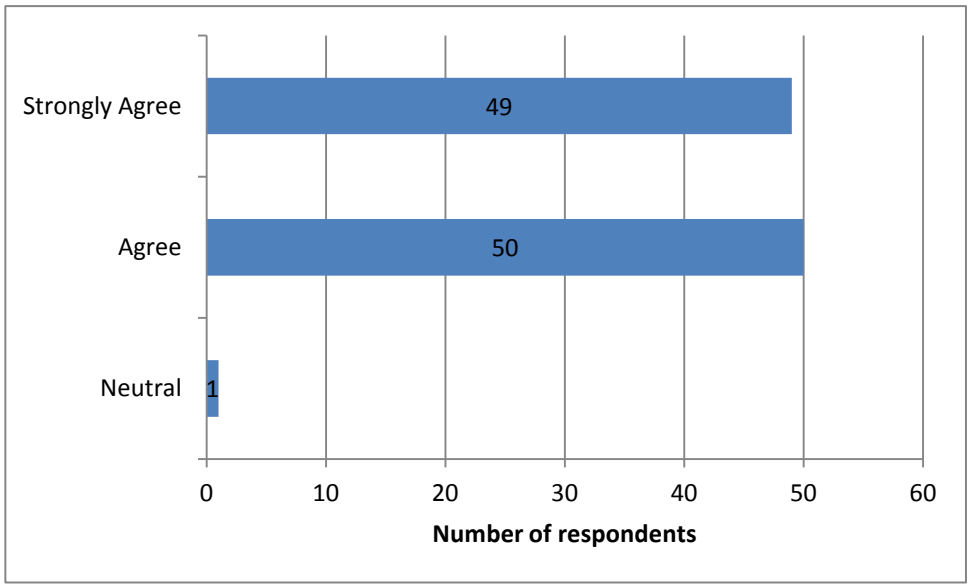

Figure 5.29: Knowledge of competitors' prices of products or services

The reason behind question 3.2.10 was to determine whether the respondents knew their competitors' customers. The mean and standard deviation for this question were 4.26 and 0.579 respectively. The standard deviation signifies that there was less spread of responses to the question and that many of the respondents agreed with the mean. The mean indicates that most of the respondents agreed with the statement. This means that they knew who their competitors' customers were. This is shown in figure 5.30.

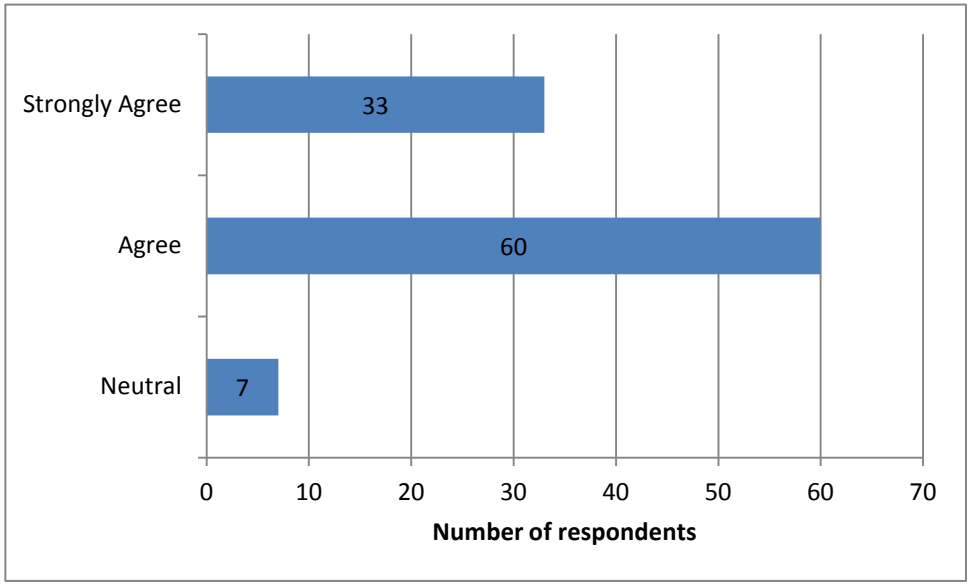

Figure 5.30: Knowledge of competitors' customers

Question 3.2.11 was aimed at establishing whether the respondents knew their competitors' strengths and weaknesses. The mean and standard deviation for this question were 3.43 and 0.856 respectively. The low standard deviation indicates that there was less spread of answers to this question. In addition, it reveals that most of the respondents agreed with the mean. While 42% of the respondents chose to be neutral, 45% of them indicated that they knew the strengths and weaknesses of their competitors. Therefore the mean of 3.43 signifies that the respondents were aware of the strengths and weaknesses of their competitors. This information is clearly shown in figure 5.31 below.

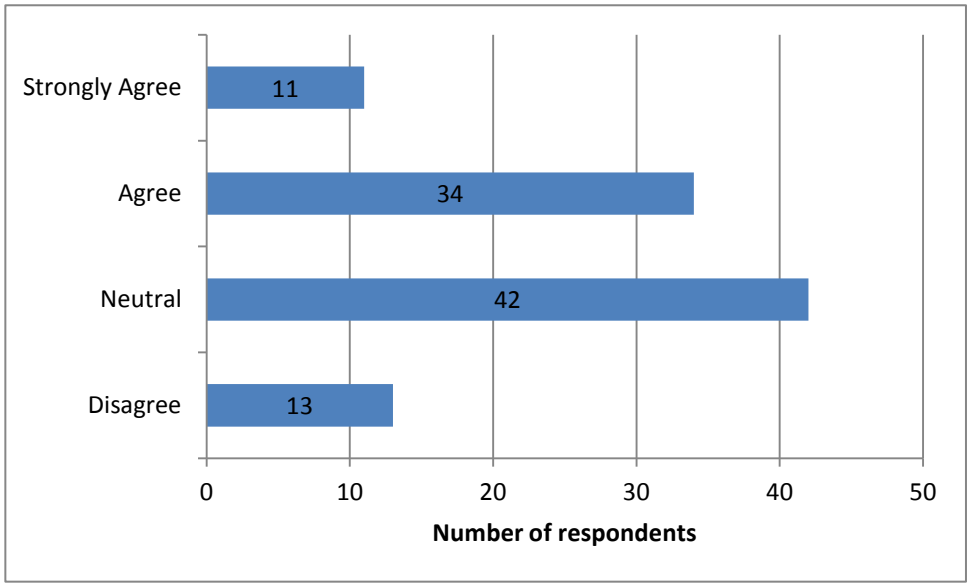

Figure 5.31: Knowledge of competitors' strengths and weaknesses

Question 3.2.12 was meant to determine if the respondents knew their competitors' suppliers. The low standard deviation of 0.996 indicates that there was less spread of responses to this question and that most of the respondents concurred with the mean. While 42% of the respondents remained neutral, 42% agreed with the statement. Therefore, the mean of 3.41 signifies that most of the respondents knew who their competitors' suppliers were. This is depicted in figure 5.32.

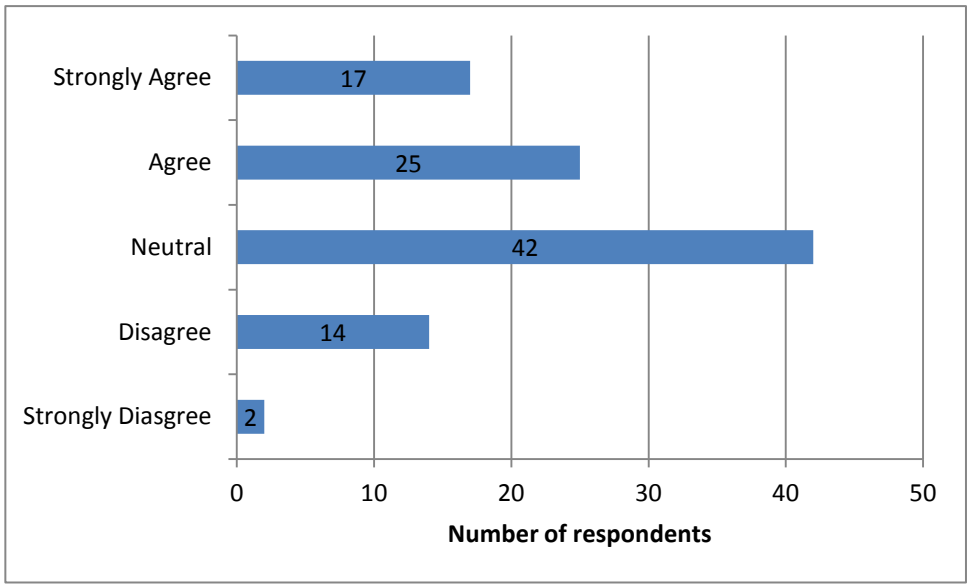

Figure 5.32: Knowledge of competitors' suppliers

The purpose of question 3.2.13 was to ascertain whether the respondents hired people or other businesses to collect information on their behalf. The mean and standard deviation were 3.10 and 1.202 respectively. The high standard deviation indicates that there was more spread of responses to this question. Likewise, it means that fewer respondents coincided with the mean. Also, 57 (57%) of the respondents agreed with the statement. The mean of 3.10 signifies that more respondents hired people or other businesses to collect information on their behalf. This is clearly shown in figure 5.33.

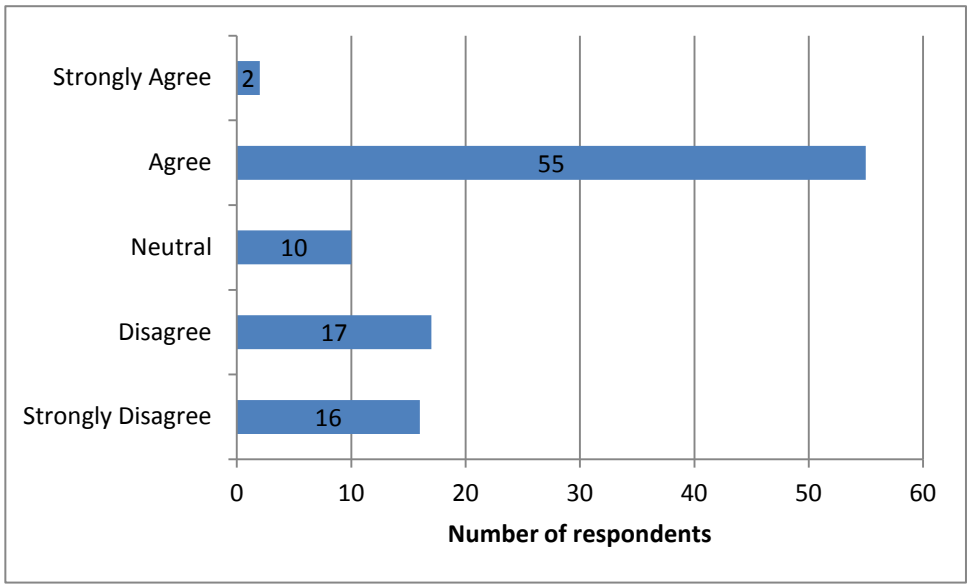

Figure 5.33: Outsourcing competitive intelligence

The rationale for question 3.2.14 was to find out whether the respondents had CI professionals in their businesses. The mean and the standard deviation for this question were 1.83 and 0.943 respectively. The low standard deviation reveals that there was low spread of answers to this question and that most of the respondents agreed with the mean. The mean shows that the majority of the respondents strongly disagreed with the statement. This means that they did not have CI professionals in their businesses. Figure 5.34 shows the result for this question.

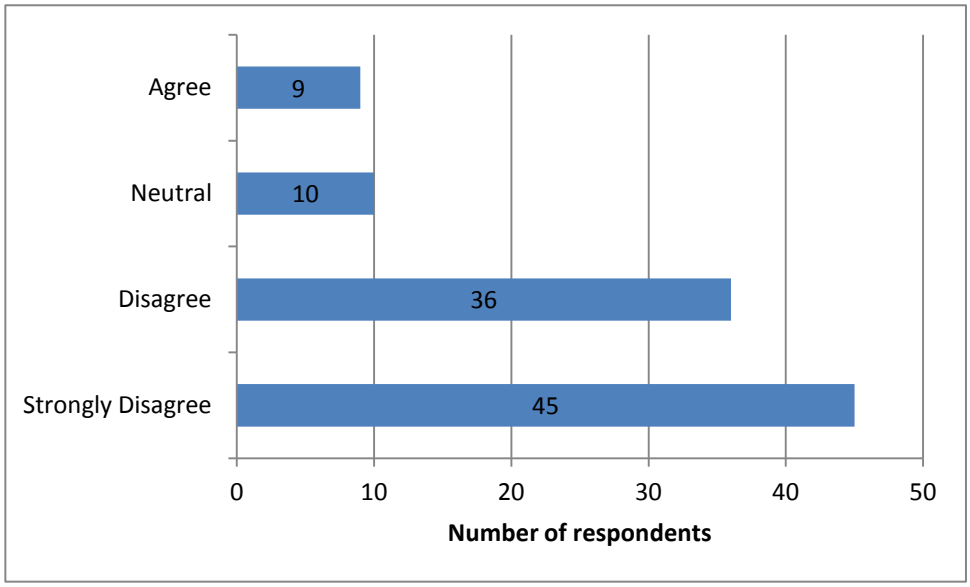

Figure 5.34: Hiring competitive intelligence professionals

Question 3.2.15 was intended to establish whether the respondents had a computerised CI system. The high standard deviation of 2.436 indicates that there was more spread of responses to this question. The mean of 1.84 indicates that more respondents strongly disagreed with the statement. This means that most of the respondents did not have a computerised CI system. This is shown in figure 5.35.

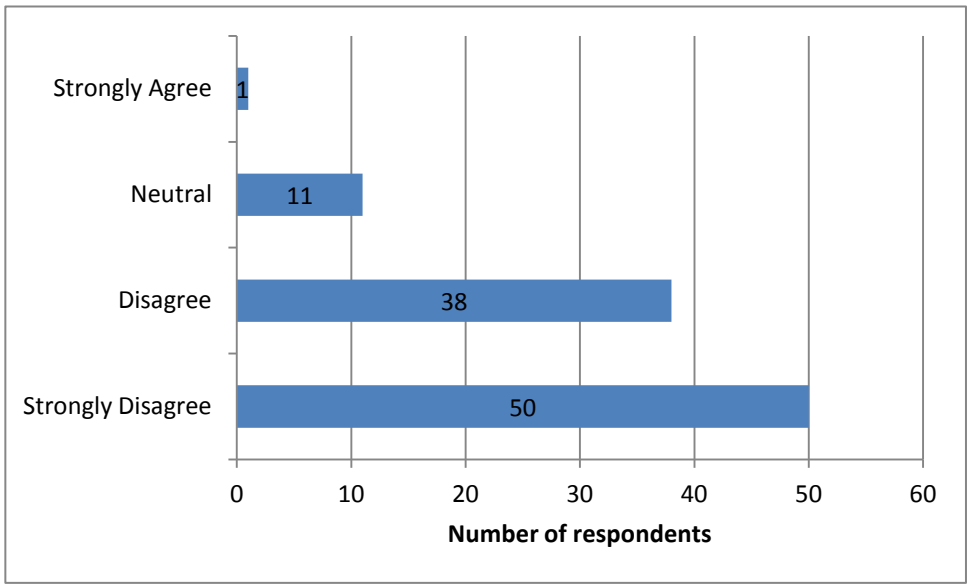

Figure 5.35: Computerisation of competitive intelligence

Question 3.2.16 was meant to find out whether competition was too high in the business sectors of the respondents. The mean and standard deviation for this question were 4.69 and 0.506 respectively. The low standard deviation indicates that there was less spread of responses to this question and that most of the respondents concurred with the mean. The mean shows that the majority of the respondents agreed with the statement. This means that most of the respondents agreed that competition was too high in their business sectors. This is clearly shown in figure 5.36 below.

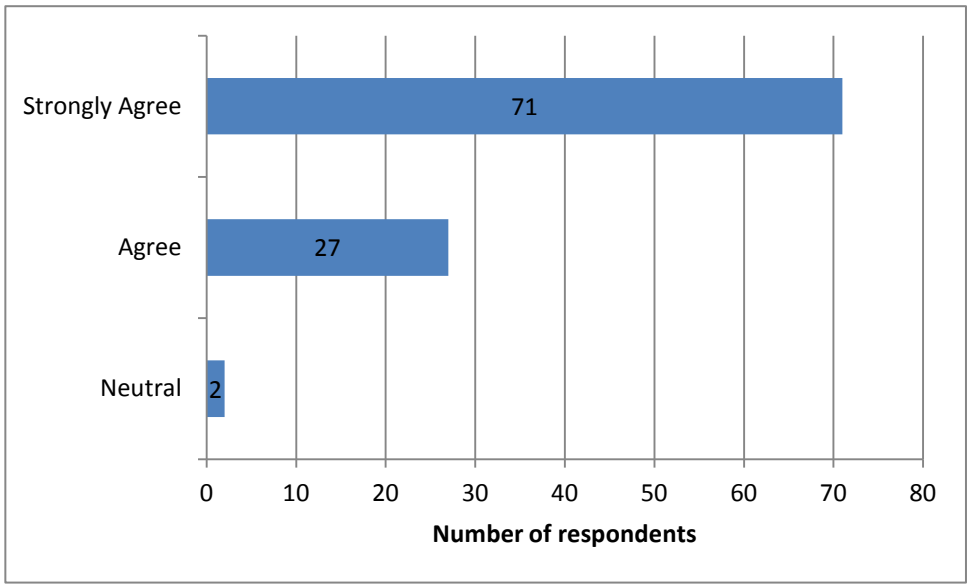

Figure 5.36: The level of competition in the market

The aim of question 3.2.17 was to ascertain whether CI gave the respondents competitive advantage over their rivals. A low standard deviation of 0.767 indicates that there was less spread of answers to this question and that most of the respondents' responses coincided with the mean. The mean of 4.41 signifies that most of the respondents agreed with the statement, which means that they agreed that CI gave them competitive advantage over their rivals. Figure 5.37 shows the results for this question.

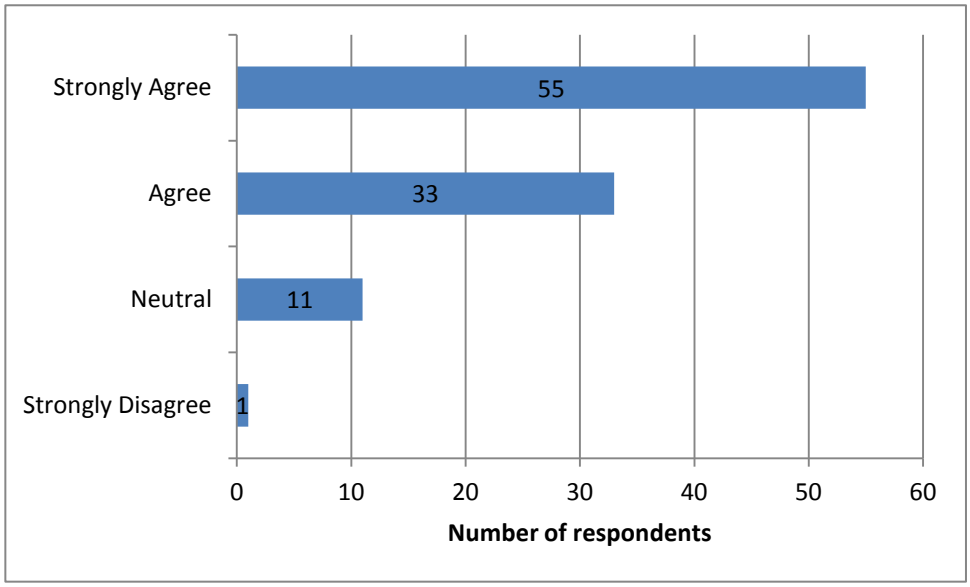

Figure 5.37: The impact of competitive intelligence on competitive advantage

Question 3.2.18 was aimed at establishing how long the respondents had practiced CI. The question had the following scales: less than 1 year, 1 to 2 years, 3 to 5 years, and 6 or more years. Only three respondents (3%) indicated that they had practiced CI for less than a year and 17 (17%) indicated that they had practiced CI for 1 to 2 years. The rest of the respondents had practiced CI for 3 to 5 years (50%), or 6 or more years (30%). This is shown in figure 5.38.

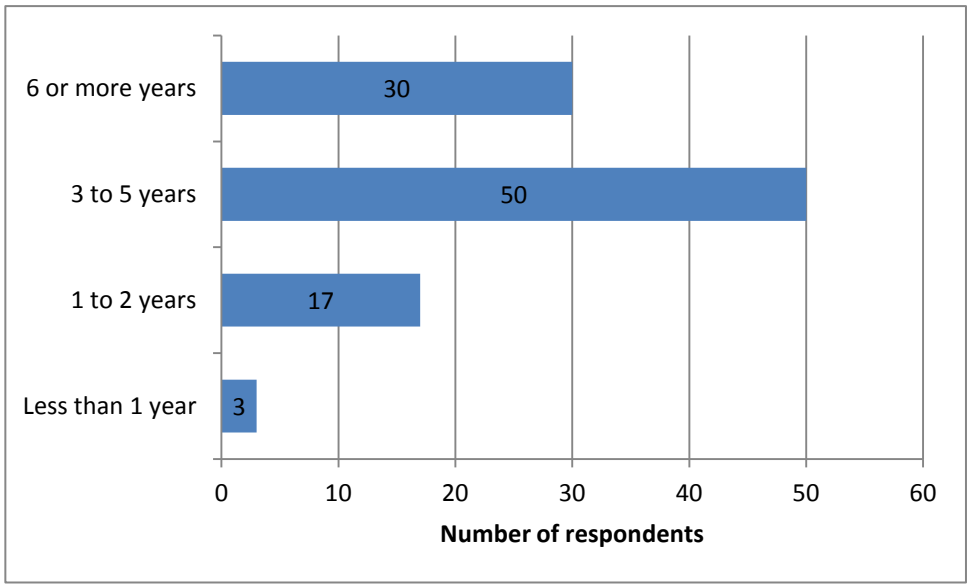

Figure 5.38: Years of competitive intelligence practice

The purpose of question 3.2.19 was to establish the sources of information on CI the respondents used. It is remarkable that all (100%) the respondents used their customers as a source of information for CI. Also, it is fascinating to learn that 88% of the respondents got their information CI from their suppliers. 74 (74%) of the respondents got their information on CI from the internet and intranets and 60 (60%) of the respondents got their CI information from their peer colleagues and subordinates. 50 (50%) of the respondents got information from newspapers and business associates. The sources of information for CI are shown in figure 5.39 below.

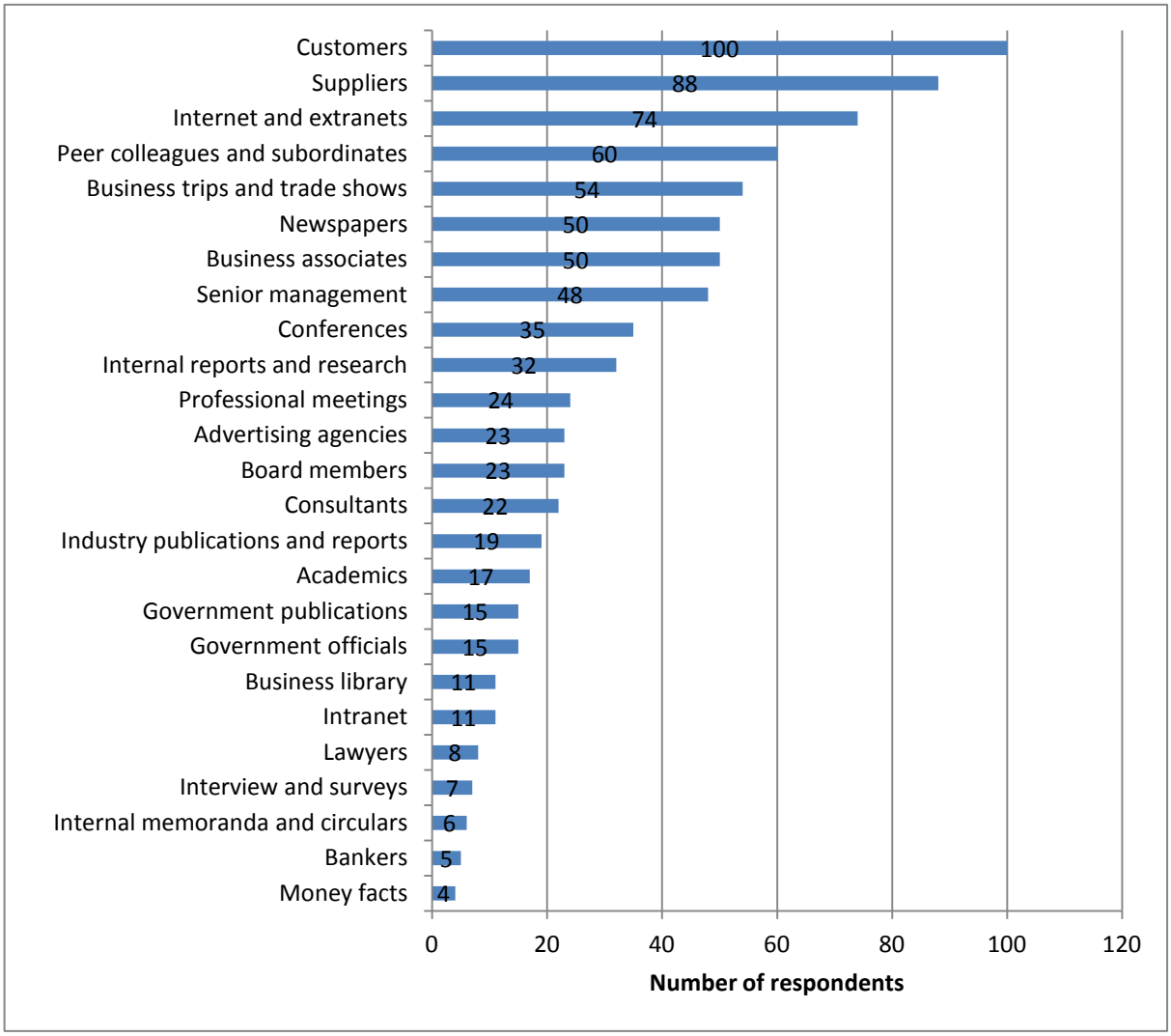

Figure 5.39: Sources of information for competitive intelligence

Question 3.2.20 was intended to determine the analytical tools the respondents used during the CI process. It is fascinating to see that 93 (93%) of the respondents used teamwork and brainstorming as analytical tools for CI; 82 (82%) of the respondents used SWOT analysis and 73 (73%) used macro-environment analysis as analytical tools for CI. Value chain analysis was used by 53 (53%) respondents and PESTE factors by 36 (36%) respondents. Furthermore, 16 (16%) respondents used financial ratios and five (5%) used valuation techniques for CI analysis. Moreover, it is interesting to discover that only one respondent used statistical programs as an analytical tool for CI. This information is shown in figure 5.40.

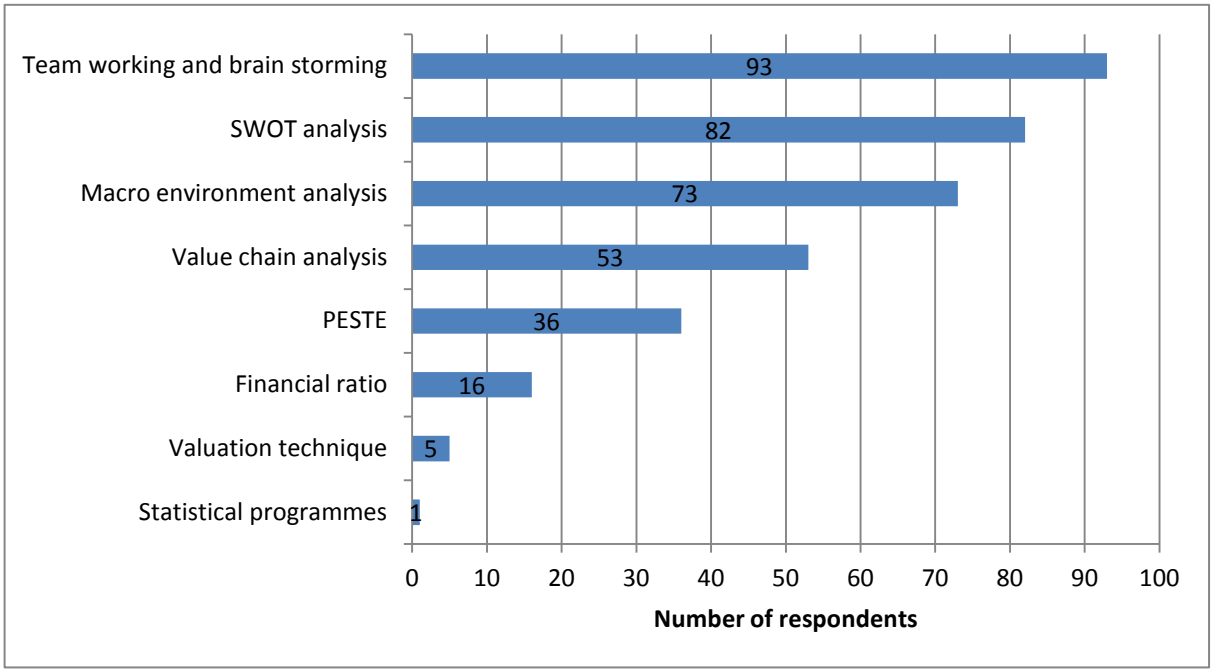

Figure 5.40: Competitive intelligence analytical tools

The motive behind question 3.2.21 was to discover what dissemination tools the respondents used in the CI processes. Again, it is remarkable that all the respondents (100%) used face-to-face meetings to disseminate CI. It is also worth noting that 86 (86%) of the respondents used e-mail to disseminate CI. 79 (79%) respondents used written reports and 61 (61%) used presentations. The data is shown in figure 5.41 below.

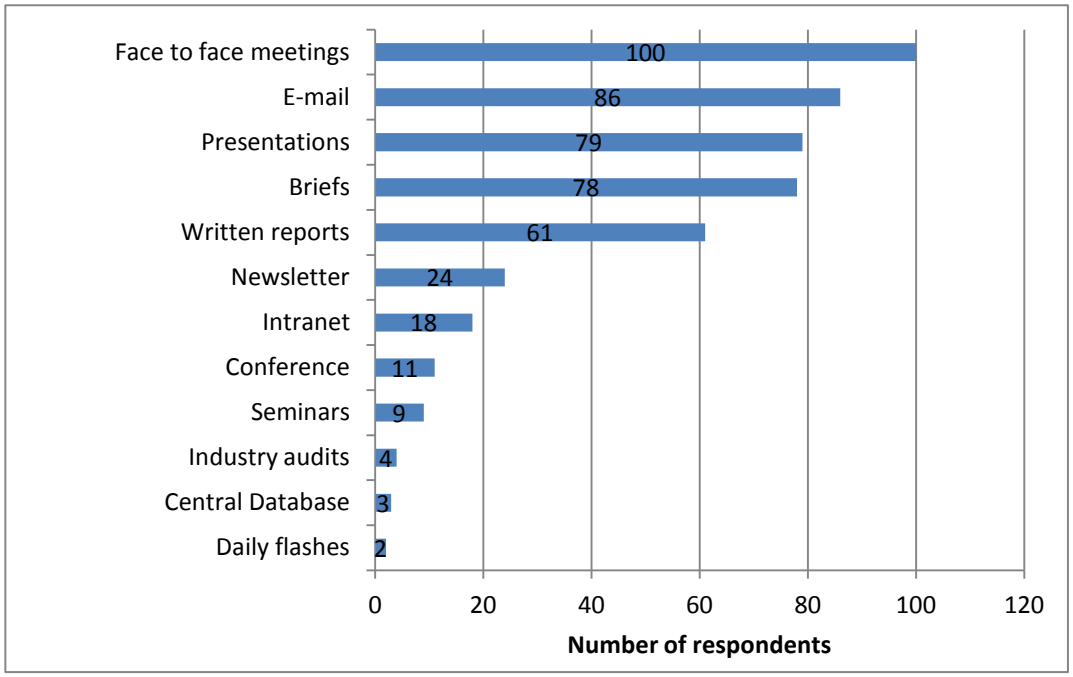

Figure 5.41: Competitive intelligence dissemination methods

The aim of question 3.2.22 was to determine the challenges the respondents experienced in practicing CI. It is worth noting that 99 (99%) of the respondents indicated lack of time was their greatest challenge. It is also worth noting that 97 (97%) of the respondents pointed out that budgetary constraints and lack of human resources were their challenges. Moreover, 64 (64%) of the respondents revealed that creating a participatory environment and awareness of CI were challenges. Figure 5.42 shows the challenges the respondents experienced with regard to CI.

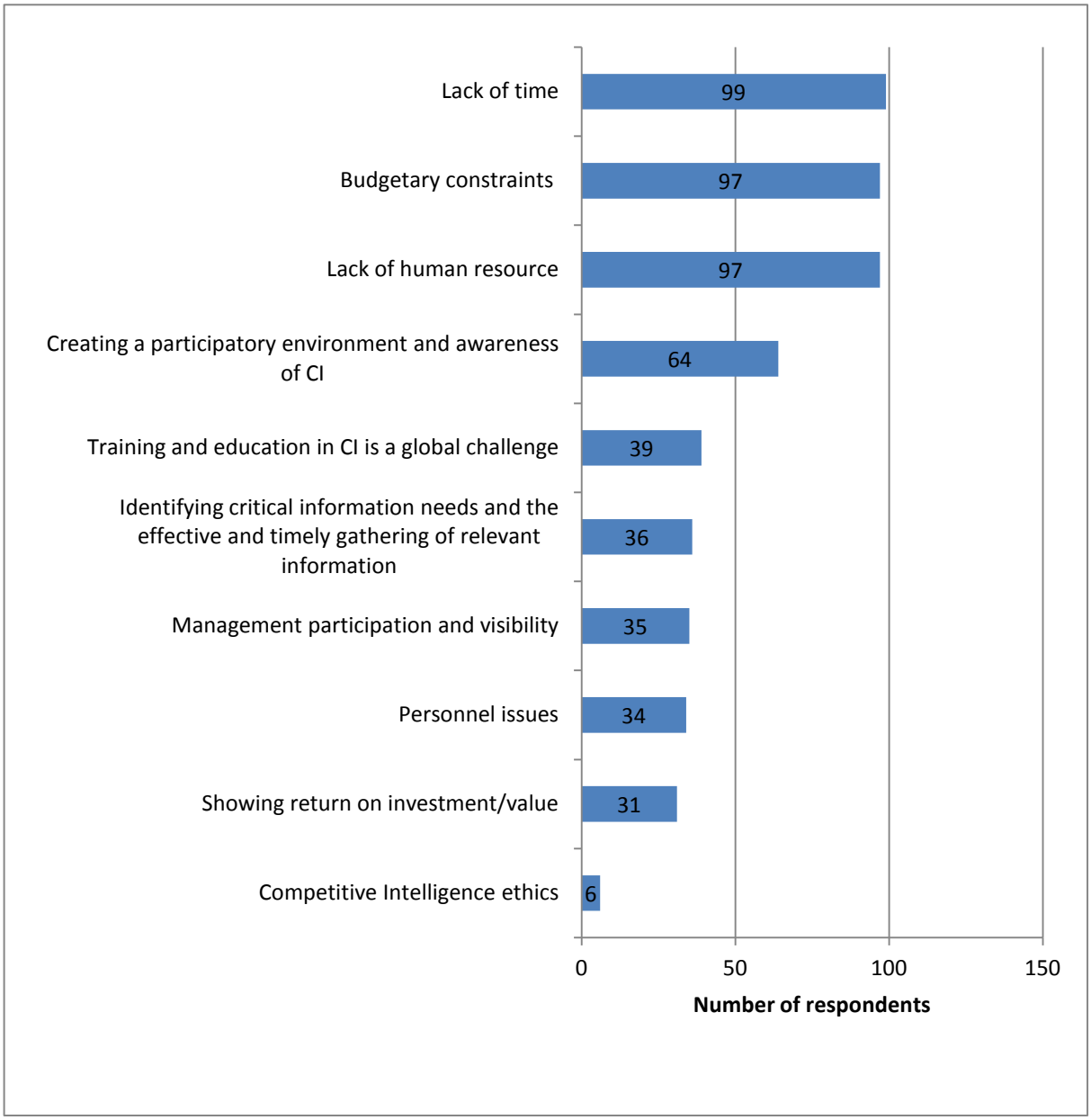

Figure 5.42: Challenges experienced in practicing competitive intelligence

Question 3.2.23 was aimed at determining the location of CI in the respondents' enterprises. 43 (43%) of the respondents indicated that their CI was located independently. The rest of the respondents' CI was spread as follows: market research (29%); marketing department (25%); knowledge management (1%); strategy management department (1%); and public relations (1%). Figure 5.43 shows the different locations of CI.

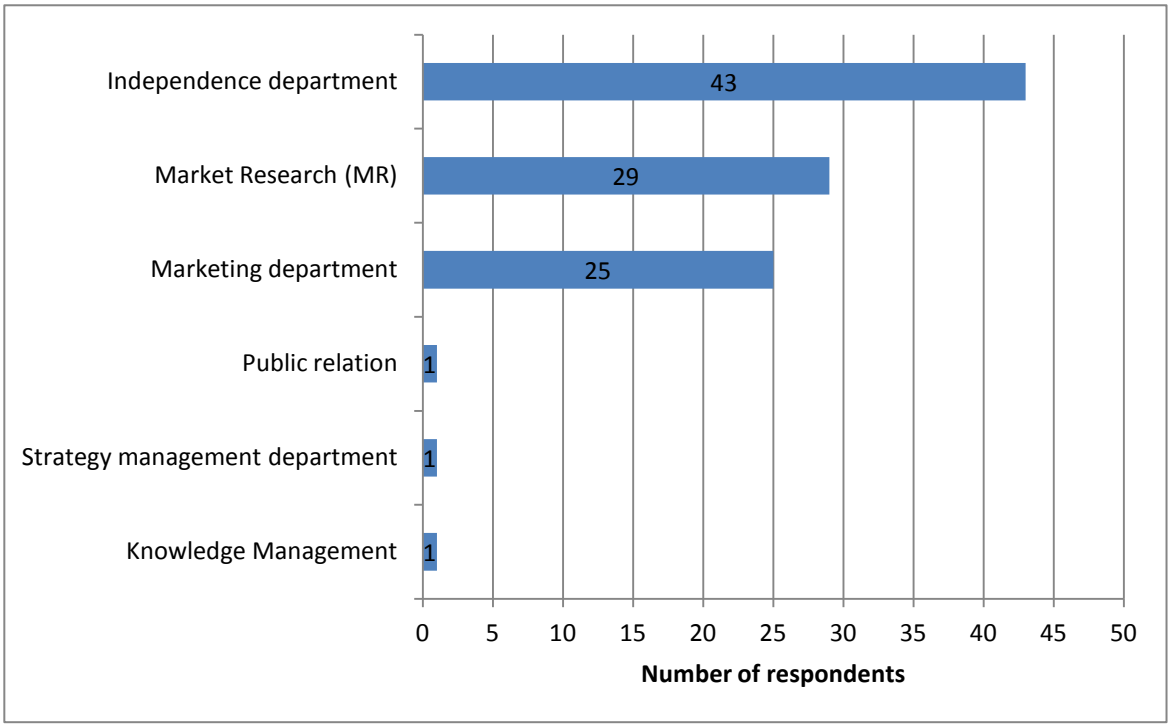

Figure 5.43: Location of competitive intelligence

The reason for question 3.2.24 was to establish the methods whereby the respondents became aware of CI. It is worth noting that 91 (91%) of the respondents became aware of CI through education and training. Also, it is fascinating that 88 (88%) of them became aware of CI through social networks. The respondents also became aware of CI through the following methods: family and friends (80%); the internet (79%); newspapers (67%); business associates (62%); conferences (62%); business meetings (60%); competitors (54%); seminars (51%); speeches (44%); magazines (39%); television (34%); workshops (33%); blogs (23%); trade shows (16%); collaborating entities (14%); and government finance (8%). This information is shown in figure 5.44.

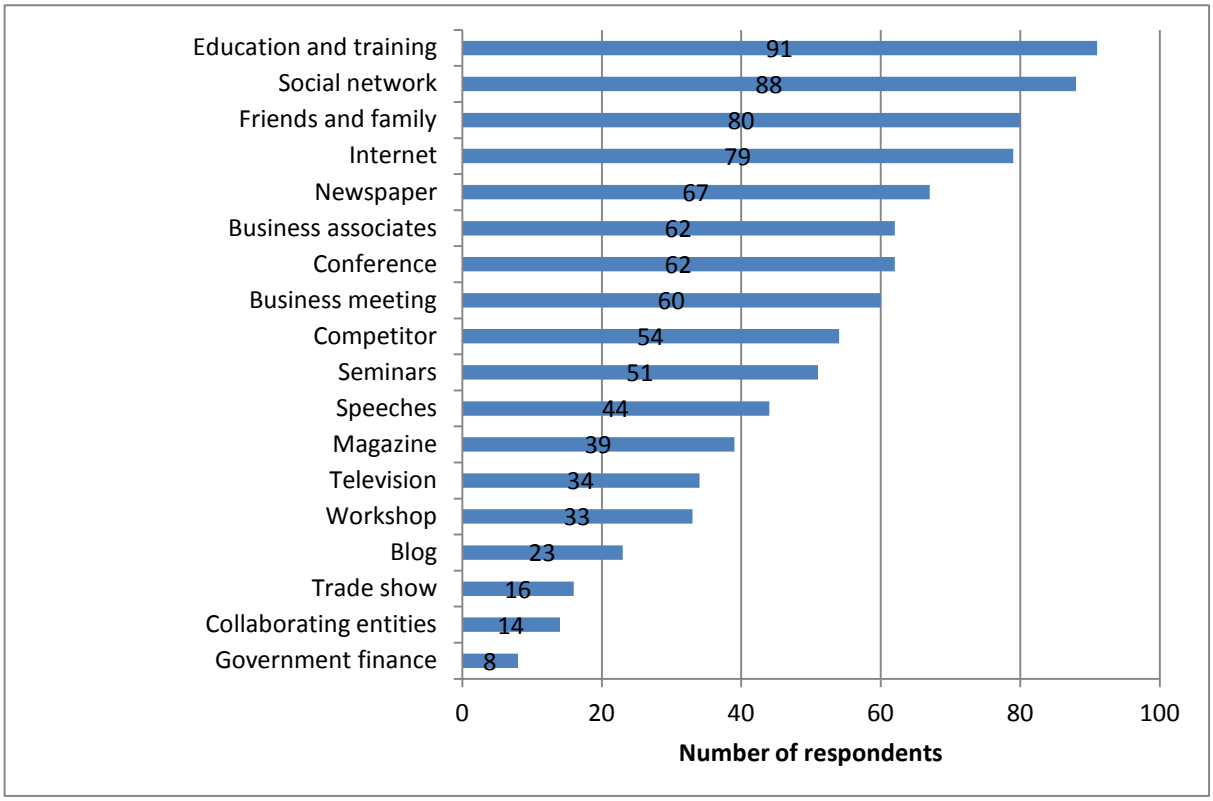

Figure 5.44: Competitive intelligence awareness methods

5.4.2 Ranking the variables

The aim of section 3.2 was to establish the respondents' understanding of CI and their awareness and practice of CI. Compared to section 3.1 of the questionnaire, the mean of section 3.2 is lower. The highest mean in section 3.1 was 4.84; whereas the highest mean in this section was 4.69. However, most of the respondents agreed with most of the statements in this section. It is worth noting that most of the respondents agreed that competition was high in their business sectors. Moreover, they agreed that they gathered CI for decision making. It is worth noting that the respondents indicated that they collected information about their competitors and analysed it. Tables 5.3 and 5.4 below show the overall means and standard deviations for section 3.2. These tables list the less valuable variables and the most valuable variables according to the number of respondents.

The variables are sorted according to mean in table 5.3. This clearly shows the highest and the lowest mean. This table indicates that most of the respondents had high competition in their sectors. It also shows that the respondents did not have CI professionals in their enterprises. Also, the respondents indicated that they did not have computerised CI in their enterprises.

Table 5.3: Variables sorted by mean

SECTION 2: COMPETITIVE INTELLIGENCE			
Variable	**Question**	**Mean**	**Standard deviation**
3.2.16	Competition is too high in our business sector.	4.69	0.506
3.2.8	We gather competitive intelligence for decision making.	4.65	0.716
3.2.6	We collect information about our competitors and analyse it.	4.64	0.659
3.2.9	We know the prices of our competitors' products or services.	4.48	0.522
3.2.3	We practice competitive intelligence in our business.	4.45	0.687
3.2.17	Competitive intelligence gives us competitive advantage over our rivals.	4.41	0.767
3.2.10	We know who our competitors' customers are.	4.26	0.579
3.2.1	We are aware of competitive intelligence.	4.12	0.671
3.2.4	Our managers support competitive intelligence practice.	3.63	0.761
3.2.11	We know our competitors' strengths and weaknesses.	3.43	0.856
3.2.12	We know who our competitors' suppliers are.	3.41	0.996
3.2.2	Our employees understand what competitive intelligence is.	3.14	0.779
3.2.13	We hire people or other businesses to collect information on our behalf.	3.10	1.202
3.2.5	Our business has a formalised competitive intelligence function.	2.16	1.143
3.2.7	We have a formalised competitive intelligence process.	2.01	1.078
3.2.15	We have a computerised competitive intelligence system.	1.84	2.436
3.2.14	We have competitive intelligence professionals in our business.	1.83	0.943

In table 5.4 the variables are sorted by standard deviation, which indicates the spread of the responses and the level of agreement between the respondents. It is clear that there was high spread of responses on the computerisation of CI, but the majority of the respondents disagreed with the statement. The table also indicates that there was less spread of responses with regard to the level of competition in the different sectors and that the majority of the respondents agreed with this statement. The average mean and standard deviation was calculated as 3.54 and 0.900 respectively. Accordingly, there was less spread of

responses to questions in this section and most of the respondents agreed with most of the statements.

Table 5.4: Variables sorted by standard deviation

SECTION 2: COMPETITIVE INTELLIGENCE			
Variable	**Question**	**Mean**	**Standard deviation**
3.2.15	We have a computerised competitive intelligence system.	1.84	2.436
3.2.13	We hire people or other businesses to collect information on our behalf.	3.10	1.202
3.2.5	Our business has a formalised competitive intelligence function.	2.16	1.143
3.2.7	We have a formalised competitive intelligence process.	2.01	1.078
3.2.12	We know who our competitors' suppliers are.	3.41	0.996
3.2.14	We have competitive intelligence professionals in our business.	1.83	0.943
3.2.11	We know our competitors' strengths and weaknesses.	3.43	0.856
3.2.2	Our employees understand what competitive intelligence is.	3.14	0.779
3.2.17	Competitive intelligence gives us competitive advantage over our rivals.	4.41	0.767
3.2.4	Our managers support competitive intelligence practice.	3.63	0.761
3.2.8	We gather competitive intelligence for decision making.	4.65	0.716
3.2.3	We practice competitive intelligence in our business.	4.45	0.687
3.2.1	We are aware of competitive intelligence.	4.12	0.671
3.2.6	We collect information about our competitors and analyse it.	4.64	0.659
3.2.10	We know who our competitors' customers are.	4.26	0.579
3.2.9	We know the prices of our competitors' products or services.	4.48	0.522
3.2.16	Competition is too high in our business sector.	4.69	0.506

5.5 CROSS-TABULATIONS AND CORRELATIONS

The purpose of this section was to establish whether there were correlations between any two variables in the study. Cross-tabulation was conducted to summarise the data from two or more variables into one table. Only cross-tabulation of variables for which Pearson's correlation coefficient (r) was between 0.7 and +1 will be discussed here and listed in appendix D. According to Pellissier (2007), the correlation coefficient measures the strength of a linear relationship between two variables. Croux and Dehon (2010) reveal that there are several correlation estimators. These include Pearson, Spearman, Kendall, Quadrant and the minimum covariance determinant. For the purpose of this study, Pearson's estimator was used. According to Croux and Dehon (2010), Pearson's correlation estimator is widely used because it is robust and resistant to outlying observations. Zimmermann, Premraj and Zeller (2007) point out that the correlation coefficient varies between -1 to +1. Moreover, if it is zero or negative, it means that the variables are not negatively linearly related; whereas if it is positive, it means that there is a positive linear relationship between the two variables. In addition, Pellissier (2007) has devised the following scales to judge the significance of variable relationships:

- -1.0 to -0.7 indicate a strong (linear) negative association.
- -0.7 to -0.3 indicate a weak (linear) negative association.
- -0.3 to +0.3 indicate little or no (linear) association.
- +0.3 to +0.7 indicate a weak (linear) positive association.
- +0.7 to +1.0 indicate a strong (linear) positive association

For the purpose of this study, only linear relationships with a strong positive association (+0.7 to +1.0) will be discussed. The correlation matrix for the relationships discussed below is displayed in appendix D. No strong positive (linear) associations were found between variables in sections 3.1 and 3.2, but the following strong positive associations were established in each of the two sections.

Variables 2.1 and 3.2.10 had a strong positive linear association. Pearson's r for these two variables was 0.719 (see appendix D). The cross-tabulation (see appendix D) shows that 51 out of 55 (92.73%) close corporations, 28 out of 30 (93.33%) companies, 13 out of 14 (92.86%) partnerships and one out of one (100%) of sole proprietorships agreed that they were aware who their competitors' customers were. Thus, companies monitored their competitors' customers more than close corporations, partnerships and proprietorships.

There was a strong positive linear association between variables 2.1 and 3.2.14. Pearson's r for these two variables was 0.816 (see appendix D). The cross-tabulation (see appendix D) shows that 47 out of 55 (85.45%) close corporations, 22 out of 30 (73.33%) companies, 11 out of 14 (78.57%) partnerships and one out of one (100%) sole proprietorship did not have CI professionals in their businesses. Thus, most of the close corporations did not appoint CI professionals compared to companies, partnerships and sole proprietorships.

Variables 2.2 and 3.1.8 had a strong positive linear association. Pearson's r for this correlation was 0.738 (see appendix D). The cross-tabulation (see appendix D) shows that eight out of 12 (66.67%) manufacturing enterprises; four out of eight (50%) construction enterprises; four out of five (80%) wholesale trade, commercial agents and allied services enterprises; eight out of 18 (44.44%) transport, storage and communications enterprises; one out of three (33.33%) community, social and personal services enterprises; 16 out of 23 (69.56) retail and motor trade, and repair services enterprises; 10 out of 19 (52.63%) catering, accommodation and other trade enterprises; and four out of eight (50%) finance and business services enterprises agreed that they had a formalised decision-making process. Thus, the retail and motor trade, and repair services sector and the wholesale trade, commercial agents and allied services sector scored higher than the other sectors.

Pearson's r for variables 2.2 and 3.2.9 was 0.944 (see appendix D). Thus, there was a very strong positive linear association between these two variables. The cross-tabulation (see appendix D) shows that almost all the enterprises in different sectors knew the prices of their competitors' products or services. Thus, enterprises in all the sectors compared prices.

Variables 2.2 and 3.2.11 had a strong positive linear association. Pearson's r for these variables was 0.752 (see appendix D). The cross-tabulation (see appendix D) shows that although 41 (41%) of the enterprises in the different sectors opted to be neutral, three out of 12 (25%) manufacturing enterprises; three out of eight (37.50%) construction enterprises; three out of five (60%) wholesale trade, commercial agents and allied services enterprises; 11 out of 18 (61.11%) transport, storage and communications enterprises; one out of three (33.33%) community, social and personal service enterprises; nine out of 23 (39.13%) retail and motor trade, and repair services enterprises; 10 out of 19 (52.63%) catering, accommodation and other trade enterprises; and four out of eight (50%) finance and business services enterprises knew their competitors' strengths and weaknesses. Thus, the enterprises in the wholesale trade, commercial agents and allied services sector analysed their competitors' strengths and weaknesses more than the enterprises in the other sectors.

Pearson's r for variables 2.2 and 3.2.15 was 0.841 (see appendix D). Thus, there was a very strong positive linear association between these two variables. The cross-tabulation (see appendix D) shows that 11 out of 12 (91.67%) manufacturing enterprises; seven out of eight (87.50%) construction enterprises; three out of five (60%) wholesale trade, commercial agents and allied services enterprises; 17 out of 18 (94.44%) transport, storage and communications enterprises; two out of three (66.67%) community, social and personal service enterprises; two out of two (100%) electricity, gas and water enterprises; 21 out of 23 (91.30%) retail and motor trade, and repair services enterprises; 18 out of 19 (94.74%) catering, accommodation and other trade enterprises; and seven out of eight (87.50%) finance and business services enterprises did not have computerised CI. Thus, the electricity, gas and water sector only had two enterprises with computerised CI and enterprises in the catering, accommodation and other trade sector did not have computerised CI.

There was a very strong positive linear association between variables 2.4 and 3.2.8. Pearson's r for this correlation was 0.854 (see appendix D). The cross-tabulation (see appendix D) shows that almost all the enterprises in different locations gathered CI for decision making. Thus, almost all the enterprises valued CI for decision making irrespective of their location.

Variables 2.4 and 3.2.13 had a very strong positive linear association. Pearson's r for these two variables was 0.823 (see appendix D). The cross-tabulation (see appendix D) shows that six out of nine (66.67%) enterprises in Atteridgeville; four out eight (50%) enterprises in Mamelodi; four out seven (57.14%) enterprises in Winterveld; two out of seven (28.57%) enterprises in Eesterust; 20 out of 34 (58.82%) enterprises in the Pretoria CBD; two out six (33.33%) enterprises in Ga-rankuwa; four out of six (66.67%) enterprises in Rosslyn; five out six (83.33%) enterprises in Mabopane; and 10 out 17 (58.82%) enterprises in Silverton/Pretoria East hired people or other businesses to collect information on their behalf. Thus, the enterprises in Mabopane outsourced CI more than the enterprises in other locations.

Pearson's r for variables 2.5 and 3.2.9 was 0.721 (see appendix D). Thus, there was a strong positive linear association between these two variables. The cross-tabulation (see appendix D) shows that 39 out of 39 (100%) enterprises with 3 to 5 years; 11 out of 11 (100%) enterprises with 1 to 2 years; and 49 out of 50 (98%) enterprises with 6 or more years of business operation knew the prices of their competitors' products or services. Thus,

enterprises with 3 to 5 years and 1 to 2 years of business operation compared prices more than those with 6 or more years of business operation.

There was a very strong positive linear association between variables 2.6 and 3.2.12. Pearson's r for this correlation was 0.827 (see appendix D). The cross-tabulation (see appendix D) shows that although 42 enterprises opted to be neutral, 18 out of 50 (36%) enterprises with less than R1m; 23 out of 48 (47.92%) enterprises with R1m to R5m; and one out of two (50%) enterprises with R6m to R10m annual turnover know who the competitor's suppliers are. Thus, enterprises with higher annual turnover analysed their competitors more than those with a lower annual turnover.

Variables 2.9 and 3.1.6 had a strong positive linear association. Pearson's r for these two variables was 0.733 (see appendix D). The cross-tabulation (see appendix D) shows that 26 out of 27 (96.29%) respondents with a grade 11 to 12 education; 46 out of 47 (97.87%) respondents with an undergraduate degree or diploma; 20 out of 21 (95.24%) respondents with an honours degree; and five out of five (100%) respondents with a master's or doctoral degree analysed their competitors. Thus, the respondents with higher qualifications analysed their competitors more than those with lower qualifications.

Pearson's r for variables 2.9 and 3.1.8 was 0.732 (see appendix D). Thus, there was a strong positive linear association between these two variables. The cross-tabulation (see appendix D) shows that 13 out of 27 (48.15%) respondents with a grade 11 to 12 education; 29 out of 47 (61.70%) respondents with an undergraduate degree or diploma; 12 out of 21 (57.14%) respondents with an honours degree; and three out of five (60%) respondents with a master's or doctoral degree had a formalised decision-making process. Thus, the respondents with higher qualifications formalised their decision-making process more than those with lower qualifications.

There was a very strong positive linear association between variables 2.10 and 3.1.3. Pearson's r for this correlation was 0.845 (see appendix D). The cross-tabulation (see appendix D) shows that all the respondents, irrespective of their number of years of working experience, agreed that information is valuable for decision making. Thus, all the enterprises valued information for decision making.

Variables 2.10 and 3.1.8 had a strong positive linear association. Pearson's r for this correlation was 0.808 (see appendix D). The cross-tabulation (see appendix D) shows that the respondent (100%) with less than 1 year, one out of four (25%) respondents with 1 to 2

years, 28 out of 50 (56%) respondents with 3 to 5 years and 27 out of 45 (60%) respondents with 6 or more years of working experience had a formalised decision-making process. Thus, more respondents with more years of working experience had a formalised decision-making process than those with few years of experience.

Pearson's r for variables 2.10 and 3.2.1 was 0.746 (see appendix D). Thus, there was a strong positive linear association between these two variables. The cross-tabulation (see appendix D) shows that all the respondents (100%) with less than 1 year, three out of four (75%) respondents with 1 to 2 years, 44 out of 50 (88%) respondents with 3 to 5 years, and 40 out of 45 (88.89%) respondents with 6 or more years of working experience were aware of CI. Thus, the respondents with more years of working experience were more aware of CI than those with fewer years of working experience.

There was a very strong positive linear association between variables 2.10 and 3.2.2. Pearson's r for this correlation was 0.920 (see appendix D). The cross-tabulation (see appendix D) shows that although 50 of the respondents opted to be neutral, one out of four (25%) respondents with 1 to 2 years, 17 out of 50 (34%) respondents with 3 to 5 years, and 14 out of 45 (31.11%) respondents with 6 or more years of working experience agreed that their employees understood CI. Thus, the employees of respondents with more years of working experience understood CI.

Variables 2.10 and 3.2.3 had a very strong positive linear association. Pearson's r for these two variables was 0.953 (see appendix D). The cross-tabulation (see appendix D) reveals that almost all the respondents with any number of years of working experience agree that they practiced CI. Thus, almost all the enterprises were practicing CI.

Pearson's r for variables 2.10 and 3.2.4 was 0.943 (see appendix D). Thus, there was a very strong positive linear association between the two variables. The cross-tabulation (see appendix D) shows that all the respondent (100%) with less than 1 year, two out of four (50%) respondents with 1 to 2 years, 34 out of 50 (68%) respondents with 3 to 5 years, and 26 out of 45 (57.78%) respondents with 6 or more years of working experience agreed that their managers supported CI practice. Thus, the managers of the respondents with many years of experience supported CI practice.

There was a very strong positive linear association between variables 2.10 and 3.2.6. Pearson's r for this correlation was 0.997 (see appendix D). The cross-tabulation (see appendix D) shows that all the respondent (100%) with less than 1 year, all the respondents

(100%) with 1 to 2 years, 48 out of 50 (96%) respondents with 3 to 5 years and 42 out of 45 (93.33%) respondents with 6 or more years of working experience collected information about their competitors and analysed it. Thus, the respondents with any number of years of working experience collected information about their competitors and analysed it.

Variables 2.10 and 3.2.7 had a very strong positive linear association. Pearson's r for this correlation was 0.926 (see appendix D). The cross-tabulation (see appendix D) shows that all the respondent (100%) with less than 1 year, two out of four (50%) respondents with 1 to 2 years, 38 out of 50 (76%) respondents with 3 to 5 years and 33 out of 45 (73.33%) respondents with 6 or more years of working experience did not have a formalised CI process. Thus, most of the respondents with 3 to 5 years did not have a formalised CI process.

Pearson's r for variables 2.10 and 3.29 was 0.768 (see appendix D). Thus, there was a strong positive linear association between these variables. The cross-tabulation (see appendix D) shows that almost all the respondents with any number of years of experience knew the prices of their competitors' products or services. Thus, almost all the respondents compared their prices with that of their competitors.

There was a very strong positive linear association between variables 2.10 and 3.2.10. Pearson's r for this correlation was 0.820 (see appendix D). The cross-tabulation (see appendix D) shows that all the respondent (100%) with less than 1 year, all the respondents (100%) with 1 to 2 years, 46 out of 50 (92%) respondents with 3 to 5 years and 42 out of 45 (93.33%) respondents with 6 or more years of working experience knew their competitors' customers. Thus, most respondents with 6 or more years of working experience were aware of their competitors' customers more than those with fewer years of working experience.

Variables 2.10 and 3.2.12 had a very strong positive linear association. Pearson's r for this correlation was 0.817 (see appendix D). The cross-tabulation (see appendix D) shows that although 42 respondents opted to be neutral, all the respondents (100%) with less than 1 year, two out of four (50%) respondents with 1 to 2 years, 19 out of 50 (38%) respondents with 3 to 5 years and 20 out of 45 (93.33%) respondents with 6 or more years of working experience agreed that they knew their competitors' suppliers. Thus, most of the respondents with 6 or more years of working experience knew who their competitors' suppliers more than the respondents with fewer years of working experience.

Pearson's r for variable 2.10 and 3.2.13 was 0.803 (see appendix D). Thus, there was a very strong positive linear association between these variables. The cross-tabulation (see appendix D) shows that all the respondent (100%) with less than 1 year, two out of four (50%) respondents with 1 to 2 years, 26 out of 50 (52%) respondents with 3 to 5 years, and 28 out of 45 (62.22%) respondents with 6 or more years of working experience agreed that they hired people or other businesses to collect information on their behalf. Thus, more respondents with 6 or more years of experience outsourced CI than those with fewer years of working experience.

There was a very strong positive linear association between variables 2.10 and 3.2.15. Pearson's r for this correlation was 0.913 (see appendix D). The cross-tabulation (see appendix D) shows that all the respondent (100%) with less than 1 year, all the respondents (100%) with 1 to 2 years, 46 out of 50 (92%) respondents with 3 to 5 years and 28 out of 45 (62.22%) respondents with 6 or more years of working experience did not have computerised CI. Thus, most respondents with 3 to 5 years working experience did not have computerised CI.

Variables 2.10 and 3.2.16 had a very strong positive linear association. Pearson's r for this correlation was 0.955 (see appendix D). The cross-tabulation (see appendix D) shows that almost all the respondents, regardless of their years working experience, agreed that the competition was too high in their business sectors. Thus, regardless of their years of working experience, the respondents were operating in highly competitive sectors.

There was a strong positive linear association between variables 3.1.1 and 3.1.2. Pearson's r for this correlation was 0.755 (see appendix D). The cross-tabulation (see appendix D) shows that 42 (42%) respondents agreed to both these variables. The remaining 58% of the respondents were either neutral or disagreed with the two variables. Thus, those who had a formal strategic plan also had a formal strategic process.

Variables 3.1.4 and 3.1.5 had a very strong positive linear association. Pearson's r for these two variables was 0.823 (see appendix D). The cross-tabulation (see appendix D) reveals that 99 (99%) of the respondents agreed to both variables 3.1.4 and 3.1.5. Therefore, the respondents who were aware of their opportunities and threats also analysed their competitors.

There was a strong positive linear relationship between variable 3.1.2 and 3.1.8. This was indicated by Pearson's r which is 0.721 (see appendix D). The cross-tabulation (see

appendix D) indicates that 42 (42%) respondents agreed to both these variables. Accordingly, the respondents who had a formal strategic process also had a formalised decision-making process.

Variables 3.1.9 and 3.1.10 had a very strong positive linear relationship. Pearson's r for this correlation was 0.823 (see appendix D). The cross-tabulation (see appendix D) reveals that 86 (86%) of the respondents agreed to both these variables. In view of this, it is clear that the respondents who implemented their chosen strategies also monitored the performance of their chosen strategies.

Pearson's r for variables 3.2.5 and 3.2.7 was 0.736 (see appendix D). Thus, there was a strong positive linear association between these variables. The cross-tabulation shows that 63 (63%) of the respondents disagreed to both these variables. Thus, the respondents who did not have a formal CI function also did not have a formal CI process.

5.6 RELIABILITY OF THE DATA

Reliability is the extent to which results are consistent over time and an accurate representation of the total population that is being studied is referred to as reliability. If the results of a study can be reproduced with a similar methodology, the research instrument is considered reliable (Joppe, 2000). For the purpose of this study, Cronbach's alpha was used to test the reliability of the research. According to Kruger (2010), the Cronbach's alpha reliability coefficient is a measure of internal consistency which measures the mean inter-correlation weighted by variances. Kruger further indicates that the Cronbach's alpha coefficient ranges between 0 and 1; the closer the result is to 1, the greater the internal consistency of the variables on the scale. According to Kruger (2010), a result that is greater than 0.8 is a good results; whereas a result that is greater than 0.9 is an excellent result. Table 5.5 shows the internal consistency test results for sections 3.1 and 3.2.

Table 5.5: Reliability of the data

Section	Cronbach's alpha	Number of items	Evaluation
3.1	0.863	10	Good
3.2	0.806	17	Good

5.7 CONCLUSION

The purpose of this chapter was to discuss the results of the study. All the variables in the questionnaire were discussed individually. Descriptive analyses such as means and standard deviations were tabulated and discussed. The analysis discussion was divided into three sections, namely: enterprise information, strategic management and CI. Linear correlations and cross-tabulations for the variables in sections 3.1 and 3.2 were also discussed. The chapter ended with a discussion on the reliability of the research and the instrument used. The conclusion and recommendations of the study is discussed in the next chapter. Chapter 6 should be read bearing in mind the analysis done in this chapter and the theory discussed in both chapters 2 and 3. Furthermore, the purposes, aims and objectives of the study (outlined in chapter 1) should be remembered.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

As stated previously in this study, IT has made globalisation possible and globalisation has made it easier for businesses to trade easily around the world. Therefore, businesses no longer compete with local competitors only but also with international ones. This has led to intense competition in each business sector. To survive in this turbulent environment, businesses must seek competitive advantage over their rivals. As a result, businesses of different sizes have resorted to practicing CI.

CI is defined by Brody (2008) as the process whereby enterprises gather actionable information about their competitors and the competitive environment and, ideally, apply it to their planning processes and decision-making in order to improve their enterprise's performance. According to this definition, enterprises that practice CI tend to improve their performance. This is because CI collects information that helps enterprises make decisions. This information is collected from both the external and the internal environments.

The study was conducted in nine locations in the CTMM. The CTMM, which is currently the largest municipality in South Africa, allows for a comprehensive overview of the extent and practices of SMEs in rural and urban environments (although there were few SMEs from the latter group). Specifically with regard to CI as a research construct, the urban environment should dominate the discussion over the rural one. A cross-sectional study was conducted.

The purposes of this study were (1) establish the level and extent of awareness and practices of CI in SMEs (2) identify the challenges SMEs face in implementing CI and (3) equip SMEs for decision making in order to help SMEs to gain competitive advantage in a turbulent global market and to enhance their economic growth. These entailed establishing (1) the level and extent of awareness and practices of CI in SMEs, (2) the position of CI in SMEs and (3) whether CI gives SMEs competitive advantage. Chapters 2 and 3 set out the theoretical background to this research, while chapters 4 and 5 concerned the research methodology and research results of the study.

The primary objectives of the study were (see section 1.6 of chapter 1):

1) to establish the extent to which SMEs are aware of CI
2) to ascertain to what extent SMEs practice CI

3) to determine the impact of CI on the competitive advantage of SMEs

This led to the following secondary objectives:

1) to establish the level of awareness and CI practices in SMEs
2) to establish how SMEs become aware of CI
3) to determine how SMEs create CI
4) to establish the positioning of CI in SMEs
5) to determine whether SMEs perform strategic planning and the role of CI in the process
6) to establish the level of competition among SMEs
7) to establish the impact of CI on the competitive advantage of SMEs

While the results of the research were discussed in the previous chapter, in this chapter conclusions are drawn about the findings of the research. The chapter begins with a list of the research findings per section of the questionnaire. Then the summary of the findings is discussed. This is followed by a discussion of the findings. Thereafter, lists of future research and recommendations are provided.

6.2 RESEARCH FINDINGS

With regard to the three constructs (enterprise information, strategic management and CI) of the study, the following came to light.

6.2.1 Enterprise information

Section 2 of part 2 of the questionnaire was aimed at establishing the characteristics of the enterprises. The research results obtained and discussed in chapter 5 imply that

- most of the respondents that participated in this research were close corporations
- the majority of the respondents were in the retail and motor trade, and repair services sector
- most of the respondents had six to 10 employees
- the majority of the respondents were operating their business in the Pretoria CBD
- most of the respondents had been in operation for six or more years
- the majority of the respondents were making less than R1m annual turnover

- globally, most of the respondents were exposed to the African market
- the majority of the respondents were owners of the enterprises
- most of the respondents had an undergraduate diploma or degree
- the majority of the respondents had three to five years working experience

6.2.2 Strategic management

Section 3.1 of part 3 of the questionnaire was aimed at establishing the respondents' understanding of strategic management. The research results obtained and discussed in chapter 5 imply that

- he respondents had a formalised strategic plan
- although some respondents opted to be neutral, the majority of the respondents indicated that they had a formal strategic management process
- the respondents considered information very valuable for decision making
- the respondents were aware of their strengths and weaknesses
- the respondents were aware of their opportunities and threats
- the respondents did analyse their competitors
- the respondents performed planning, organising, leading and controlling
- while some respondents chose to be neutral, the majority of the respondents indicated that they had a formalised decision-making process
- nearly all the respondents implemented their chosen strategies
- nearly all the respondents monitored the performance of their strategies

6.2.3 Competitive intelligence

The aim of section 3.2 of part 3 of the questionnaire was to ascertain the respondents' understanding of CI practice. The research results obtained and discussed in chapter 5 suggest that

- Nearly all the respondents were aware of CI.
- While some respondents opted to be neutral, the majority of the respondents indicated that their employees understood what CI is.
- The majority of the respondents practiced CI in their enterprises.
- Although some respondents chose to be neutral, most of the respondents indicated that their managers supported CI practices.

- Very few of the respondents had a formalised CI function.
- The respondents collected information about their competitors and analyse it.
- Very few of the respondents had a formalised CI process.
- The majority of the respondents gathered CI for decision-making purposes.
- Nearly all the respondents knew the prices of their competitors' products or services.
- The respondents knew their competitors' customers.
- The majority of the respondents knew the strengths and weaknesses of their competitors.
- While some respondents opted to be neutral, most of the respondents indicated that they knew who their competitors' suppliers were.
- Almost all the respondents hired people or other businesses to collect information on their behalf.
- Very few of the respondents had CI professionals in their businesses.
- The respondents did not have a computerised CI system.
- Most of the respondents believed that the competition in their business sectors was too high.
- Almost all the respondents agreed that CI gave them competitive advantage over their rivals.
- The majority of the respondents had been practicing CI for more than three years.
- Most of the respondents commonly got their information for CI from the following sources: the internet and intranet; peers and subordinates; and newspapers and business associates (in this order).
- The most commonly used analytical tools were teamwork and brainstorming, SWOT analysis and macro-environment analysis (in this order).
- The most commonly used CI dissemination methods were e-mails, written reports and presentations (in this order).
- In general, lack of time, budgetary constraints and lack of human resources, and creating a participatory environment and awareness of CI were the most common challenges in practicing CI (in this order).
- The most popular locations of CI in enterprises were independently and market research (in this order).
- The most common methods whereby the respondents became aware of CI were education and training, social networks, and family and friends (in this order).

6.3 SUMMARY OF THE FINDINGS

The findings of this study were discussed in the previous section and are discussed here in relation to the objectives of the study.

Objective (1): The extent to which SMEs are aware of and practicing CI

The findings indicate that the majority of the SMEs in the sample were, to a greater extent, aware of CI. With their managers' support for CI practice and employees' understanding of CI, the SMEs in the sample were able to practice CI. Moreover, the findings indicate that the SMEs in the sample practiced CI informally. They did not have a formalised CI function or process. Furthermore, the SMEs in the sample did not have either computerised CI systems or CI professionals.

The findings also reveal that the majority of the SMEs in the sample gathered information about their competitors. This information included the prices of competitors' products or services. In addition, they collect information about the customers of their competitors. The majority of the SMEs in the sample indicated that they were aware of their competitors' strengths and weaknesses and of their suppliers. Also, they hired people or other businesses to collect information on their behalf. Lastly, the majority of the SMEs in the sample gathered CI for decision making.

The correlation matrix and cross-tabulation in appendix D (discussed in section chapter 5) signify that

- the SMEs that did not have a formal CI function also did not have a formal CI process
- companies practice CI more than close corporations, partnerships and proprietorships
- most of the close corporations did not appoint CI professionals compared to companies, partnerships and sole proprietorships
- the enterprises in the wholesale trade, commercial agents and allied services sector practiced CI more than the enterprises in the other sectors
- the enterprises in the catering, accommodation and other trade sector did not have computerised CI compared to the enterprises in the other sectors
- the enterprises that were operating 3 to 5 years and 1 to 2 years practiced CI more than those with 6 or more years

- the enterprises with a higher annual turnover practiced CI more than those with a lower annual turnover
- the respondents with many years of working experience were more aware of CI than those with fewer years of working experience
- the managers of respondents with many years of experience supported CI practice
- most of the respondents with 3 to 5 years did not have a formalised CI process
- the respondents with 6 or more years of working experience practiced CI more than those with fewer years of working experience
- the respondents with 6 or more years of working experience outsourced CI more than those with fewer years of working experience
- most of the respondents with 3 to 5 years working experience did not have computerised CI

It is therefore clear that the SMEs in the sample were aware of CI to a greater extent. Furthermore, while the SMEs practiced CI, they did so informally. It is also clear that the respondents' years of working experience had a greater influence on their awareness and practice of CI.

Objective (2): How SMEs become aware of CI

Although most of the SMEs in the sample were aware of CI, it was interesting to learn how they became aware of it. While there were many methods whereby the SMEs became aware of CI, some methods were more popular than others. The most popular methods (see chapter 5) were education and training; social networking; family and friends; the internet; newspapers; business associates; conferences; business meetings; competitors; and seminars (in this order). In conclusion, nearly all the SMEs in the sample became aware of CI through education and training.

Objective (3): How SMEs create CI

Although they did so informally, the SMEs in the sample practiced CI to a greater extent. In addition, they collected information on CI from many sources. However, the most popular sources of information (see chapter 5) were suppliers; the internet and intranets; peer colleagues and subordinates; newspapers; and business associates (in this order). After collection, the information was analysed. Methods that were commonly used by SMEs for analysis (see chapter 5) included teamwork and brainstorming; SWOT analysis; macro-

environment analysis; and value chain analysis. The analyses produced CI, which was then disseminated to the decision-makers. The most popular methods the SMEs in the sample used to disseminate CI (see chapter 5) were e-mails, written reports and presentations (in this order). In conclusion, even though they did not do so formally, SMEs in the sample created CI.

Objective (4): The positioning of CI in SMEs

According to the findings, the majority of the SMEs (see chapter 5) positioned their CI in the marketing department. This was made up almost equally of market research and marketing department. Almost half of the SMEs positioned their CI independently of the traditional business functions. Knowledge management, strategy management and public relations shared the remainder. In conclusion, the majority of the SMEs positioned their CI in the marketing function.

Objective (5): To find out whether SMEs perform strategic planning and the role of CI in the process

The findings indicate that the SMEs in the sample performed strategic planning to a greater extent. Moreover, the SMEs indicated that they had a formal strategic planning process to some extent. It is clear from the findings that the SMEs in the sample valued information for decision making. The majority of the SMEs indicated that their decision-making process was formal. It is evident from the findings that the SMEs were aware of their weaknesses and strengths – to a greater extent. Also, they were aware of their opportunities and threats. Furthermore, the SMEs analysed their competitors to prepare themselves against any moves by their competitors. The findings clearly indicate that not only did the SMEs in the sample perform planning, but they also organised, led and controlled their resources. In addition, the findings indicate that besides implementing their chosen strategies, the SMEs in the sample monitored the performance of their chosen strategies.

The correlation matrix and cross-tabulations in appendix D (discussed in chapter 5) signify that

- the SMEs in the sample that had a formal strategic plan also had a formal strategic process
- the SMEs that were aware of their opportunities and threats also analysed their competitors

- the SMEs with a formal strategic process also had a formalised decision-making process
- the SMEs in the sample that implemented their chosen strategies also monitored the performance of their chosen strategies
- the retail and motor trade, and repair services sector and the wholesale trade, commercial agents and allied services sector had a better formalised decision-making process than the other sectors
- the respondents with higher qualifications analysed their competitors more than those with lower qualifications
- the respondents with higher qualifications formalised their decision-making process more than those with lower qualifications
- the respondents with many years of experience had a better formalised decision-making process than those with few years of experience

It is therefore clear from the findings that even though they did so formally and to a lesser extent, the SMEs in the sample performed strategic planning. They were, to a greater extent, aware of their weaknesses and strengths and of opportunities and threats. Knowledge of their weaknesses and strengths, opportunities and threats and overall competitors helped the SMEs in the sample in the decision-making process. CI collects relevant information to assist SMEs in decision making. Furthermore, the qualification levels of the respondents had an influence on the performance of their strategic planning. The study was not intended to investigate which qualifications were more suitable for SMEs' growth.

Objective (6): The level of competition among SMEs

Enterprises in the same industry compete for customers. Competition leads enterprises to device means to gain a competitive advantage over their rivals. The level of competition may be different in different industries. The findings of this study indicate that the level of competition among the SMEs in different industries was very high.

Objective (7): The impact of CI on the competitive advantage of SMEs

Competitive advantage gives its holders an added advantage over their rivals. As per the findings of this study, CI do provide SMEs with competitive advantage. Therefore, the SMEs in the sample that practiced CI had an advantage over those that did not.

6.4 DISCUSSION OF THE FINDINGS

While the existing literature suggests that awareness of CI must be raised, the findings of this study reveal that the SMEs are aware of CI. This may be due to the research population and sample, which were largely based in the urban areas of the CTMM. The findings also indicate that education and training is the most popular method of raising CI awareness. However, the findings of this study concur with the existing literature in that CI is still being practiced informally by SMEs. This is evident from the findings as most of the SMEs did not have a computerised CI or any CI professionals. Furthermore, most of the SMEs in the sample indicated that they did not have a formalised CI process.

The findings of this research also concur with the existing literature in that SMEs (like bigger enterprises) outsource their CI. It was outside the scope of this study to establish why SMEs outsource CI. A further study could be conducted to determine the reasons why most SMEs outsource their CI.

The findings of this study further concur with the existing literature in that CI was located in the marketing function in most of the SMEs in the sample. However, the existing literature suggests that CI must be located independently of the traditional management functions. The reason for this is because CI that is located in a specific function tends to collect information specifically for that function and ignores the overall enterprise's information requirements. It would be valuable to determine what the reasons are why enterprises locate their CI in the marketing department and not independently.

While the existing literature suggests that managerial support leads to CI, the findings of this study indicate that managers support CI practices only to a lesser extent. The findings also indicate that SMEs' employees have an understanding of CI to a lesser extent. This can hinder the practice of CI. However, with the findings indicating that CI gives enterprises competitive advantage, SMEs might find it necessary to practice CI. The findings also reveal that CI practices pose many challenges to SMEs.

Although the SMEs in the sample indicated that their decision-making process was formal, this was only to a lesser extent. This implies that there is no extended decision-making structure that normally delays decision making. In most cases the owner/manager makes decisions. The findings reveal that the SMEs in the sample valued information for decision making. This means that the SMEs collected information that helped them in making decisions. In addition, the findings reveal that the SMEs in the sample were not only aware

of their weaknesses and strengths, but also of their threats and opportunities. The SMEs in the sample analysed their competitors. This in turn led to the practice of CI. Contrary to the existing literature, the findings of this research indicate that SMEs have a formal strategic plan. This means that they have clearly written strategic plans which they not only implement, but also monitor the performance of.

6.5 DELIMITATION OF THE STUDY

The study was undertaken among 100 selected SMEs in the CTMM. This is because this sector of the economy is largely informal and unstructured, and limited research on CI in the CTMM has been undertaken. Given the CTMM's status as a smart city municipality, however, it is clear that research in this domain is valuable, both from theoretical and an application point of view.

6.6 LIMITATIONS OF THE STUDY

This research was limited to SMEs in the CTMM. The limitations of the study are:

- *Sample method and location:* The SME environment in South Africa is relatively unstructured and informal, making it difficult to obtain a comprehensive list of SMEs. This necessitates the use of non-probability sampling techniques in order to research this economically active part of the South African business environment. Although the study was undertaken in the CTMM using a quota sample of 100 respondents, the research adds value because of the nature of CI as a field that has not been investigated fully. The sample of 100 was decided upon due to financial and time constraints. However, because of the consistency of the responses, there is no reason to suspect that a bigger sample would have produced different results.
- *Generalisation:* It was not intended that the findings of the study should be generalised to a larger population. However, since the CTMM is the largest municipality in South Africa, there may be reason to suggest that other large municipalities will follow similar patterns as those identified here.
- *Size of location:* Other locations covered in the research did not have many SMEs and therefore only a few were included in the sample.
- *Participation***:** Most of the SMEs that were contacted indicated that they were too busy to complete a questionnaire and therefore did not participate in the study.

- *Rewards:* Some SMEs expected some form of reward to participate in the research and were therefore not willing to take part in the study.

6.7 FUTURE RESEARCH

This study was delimited to one economic area (the CTMM) and the specific purposes and objectives were indicated in chapter 1 (see sections 1.5 and 1.7), chapter 4 (see section 4.3) and chapter 6 (see section 6.1).The following are areas for future research:

- *CI awareness:* The findings indicate that SMEs are aware of CI. Further research should be done to find out the influence of their awareness on CI practice.
- *Raising CI awareness:* The findings indicate that education and training is the most popular method to raise CI awareness. Further research should be conducted to establish how education and training can influence CI practices. Also, the content and form of training should be researched.
- *Outsourcing CI:* The results of the research show that SMEs are outsourcing CI. Further research should be conducted to ascertain why SMEs are outsourcing CI.
- *Computerised CI:* According to the findings of this study, SMEs do not have computerised CI. Further research should be done to find out how information technology can help SMEs to formalise their CI practice.
- *Understanding CI:* The findings of this study indicate that SMEs' employees understand CI to a lesser extent. Further research should be conducted to establish the influence of employees' understanding on CI practice.
- *Challenges in practicing CI***:** Lack of time, budgetary constraints and lack of human resources are the biggest challenges SMEs experience when practicing CI. Further research should be conducted to establish how to restructure resources to support CI practice.
- *Location of CI in the enterprise:* The findings of this study show that SMEs locate their CI in the marketing department. Further research should be conducted as to why most enterprises locate their CI in the marketing department and where CI should be located.
- *Defining CI:* The literature reveals that there are many definitions of CI. Further research should be conducted to come up with one definition of CI.

6.8 RECOMMENDATIONS

This research was exploratory in nature and focussed on CI in a sample of SMEs in the CTMM. The following recommendations can be made:

- *CI understanding:* SMEs should try to raise their employees' understanding of CI.
- *CI support:* Owners/managers of SMEs should support CI practice to a greater extent.
- *Resource allocation:* SMEs should restructure their resources to support CI practice.
- *Raising CI awareness:* SMEs should invest in education and training because it raises CI awareness.
- *Formalising CI:* SMEs should strive to formalise their CI process and function.
- *CI professionals:* SMEs should appoint CI professionals because this will lead them to value CI.
- *CI practice:* SMEs should continue to practice CI because it gives them competitive advantage in a highly competitive environment.
- *Sources of CI:* SMEs should value their customers and suppliers because these are their greatest sources of CI.

6.8 CONCLUSION

SMEs operate in a highly competitive environment and in order to survive and sustain their businesses, they have to seek and obtain competitive advantage over their rivals. For this purpose, enterprises of different sizes implement CI. CI helps enterprises to quickly make accurate decisions and formulate strategies. To enjoy the benefits of CI, CI must however be implemented. Murphy (2006) points out that SMEs can also practice CI.

The purposes of this study were to establish the extent of the awareness and practice of CI and to identify the challenges SMEs face in practicing CI. The research established that the SMEs in the sample were aware of CI to a larger extent. Also, the research revealed that education and training was the most popular method of raising CI awareness. Moreover, the research has established that even though they did so informally, the SMEs in the sample practiced CI. They did not have a formalised CI process and function. However, they did collect information for CI from several sources. The most popular sources were customers and suppliers. This information was then analysed and disseminated to decision-makers. The research also established that CI provides competitive advantage to SMEs.

However, in practicing CI the SMEs experienced some challenges. These were, in order of their perceived importance: lack of time; budgetary constraints; lack of human resources; difficulties in creating a participatory environment and awareness of CI; lack of training and education in CI; problems in identifying critical information needs and the effective and timely gathering of relevant information; lack of management participation and visibility; personnel issues; failure to show return on investment/value; and not adhering to CI ethics. Therefore, it is clear that resources are a major challenge for SMEs in practicing CI.

The research established a continuing trend of SMEs positioning CI in the marketing function. According to Antia and Hesford (2007), when CI is located in the marketing and sales function, it tends to be focused more on the external environment and ignore the internal environment. Antia and Hesford further indicate that when CI is located in the marketing department, there is no good dissemination of CI to other functions. For easier dissemination of CI to all functions, CI must be located at the top level of management or otherwise independently.

It is therefore evident from this research that SMEs value not only general business information but also CI. SMEs have realised that ignoring their competitors could mean the end of their business. It is evident from this study, that SMEs analyse their competitors. During the competitor analysis process, SMEs gather information for CI; CI provide SMEs with competitive advantage and helps in the decision making process.

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APPENDICES

APPENDIX A: QUESTIONNAIRE

AWARENESS AND PRACTICE OF SMES' COMPETITIVE INTELLIGENCE

SURVEY QUESTIONNAIRE

PART 1: PURPOSE OF THE SURVEY AND DEFINITIONS

Very Important: All the information you provide in this questionnaire will be kept strictly confidential.

1.1 PURPOSE OF THE SURVEY

The purpose of this survey is to establish the extent to which SMEs are aware of and practice competitive intelligence in the City of Tshwane Metropolitan Municipality and the challenges they experience in practicing competitive intelligence.

The information collected by means of this questionnaire will be used to establish the awareness and practice of competitive intelligence by SMEs in the City of Tshwane Metropolitan Municipality. The outcome of this research will increase the understanding of competitive intelligence and help businesses, academics, researchers and government in raising competitive intelligence awareness. Your business has been selected for participation in this research.

The questionnaire should take approximately 15 minutes to complete. Answer all the questions honestly and frankly.

Thank you in advance for spending your precious time on completing this questionnaire. I hope it will not only be an enjoyable experience but also that it will help you to understand competitive intelligence more fully. If you experience any problems in completing this questionnaire, do not hesitate to contact Mr TE Nenzhelele by phone (071 513 9809), e-mail (nenzhte@unisa.ac.za) or fax(086 694 6436).

1.2 DEFINITIONS OF TERMS

Strategy: A game plan indicating the choices a manager have to make about how to attract and meet customer needs, how to compete successfully, how to grow the enterprise, how to manage organisational architecture and develop the required dynamic capabilities, and how to achieve performance targets by implementing strategy successfully.

Strategic management: The overall effectiveness and choice of direction within a dynamic, complex and ambiguous environment.

Strategic decision making: A selection process whereby one of two or more possible solutions is chosen to reach a desired goal.

Competitive intelligence: The process enterprises use to gather actionable information about their competitors and the competitive environment and, ideally, apply it in their planning processes and decision-making in order to improve their performance.

E-business: The process of exchanging goods, services and payments through electronic transactions typically performed through electronic data interchange (EDI), virtual private networks (VPNs) or the Internet.

PART 2: ORGANISATIONAL INFORMATION

2.1. Form of business enterprise

Mark only one block with an X.

Sole proprietorship		Partnership		Close corporation		Company	

2.2 Business sector or subsector

Mark the most appropriate block with an X.

Agriculture		Mining and quarrying	
Manufacturing		Electricity, gas and water	
Construction		Retail and motor trade, and repair services	
Wholesale trade, commercial agents and allied services		Catering, accommodation and other trade	
Transport, storage and communications		Finance and business services	
Community, social and personal service		Other (specify):	

2.3. Number of employees

Mark the most appropriate block with an X.

1 to 5		6 to10		11 to 20		21 to 50		50 to 200	

2.4. Business location

Mark the most appropriate block with an X.

Atteridgeville		Eesterust		Ga-rankuwa		Mabopane	8
Mamelodi		Pretoria CBD		Rosslyn		Silverton/Pretoria East	9
Winterveld		Other (specify):					

2.5. Year of business operation

Mark the most appropriate block with an X.

Less than 1 year		3 to 5 years		1 to 2 years		6 or more years	4

2.6. Total annual turnover (sales)

Mark the most appropriate block with an X.

Less than R1m		R1m to R5m		R6m to R10m		R11m to R20m	
R21m to R30m		R31m to R50m		R51m to R64m			

2.7. Global market exposure

Consider all the options and mark the appropriate ones with an X.

Europe		North America		South America		Asia	
Africa		Australia		New Zealand		India	
Brazil		China		Other (specify):			

2.8. Your position in the business:

2.9. Your educational level

Mark the most appropriate block with an X.

Grades 8 to 10		Grades 11 to 12		Undergraduate degree or diploma	
Honours degree		Master's or doctoral degree			

2.10. Your years of working experience

Mark the most appropriate block with an X.

Less than 1 year		1 to 2 years		3 to 5 years		6 or more years	

PART 3: STRATEGIC MANAGEMENT AND COMPETITIVE INTELLIGENCE

SECTION 1: STRATEGIC MANAGEMENT

Please indicate on a scale of 1 to 5 to what level you agree with the following statements about strategic management, decision making and planning. 1 equals strongly disagree and 5 equals strongly agree.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

3.1.1	We have a formal strategic plan.	1	2	3	4	5
3.1.2	Our strategic management process is formalised.	1	2	3	4	5
3.1.3	Information is valuable for decision making.	1	2	3	4	5
3.1.4	We are aware of our weaknesses and strengths.	1	2	3	4	5
3.1.5	We are aware of our opportunities and threats.	1	2	3	4	5
3.1.6	We analyse our competitors.	1	2	3	4	5
3.1.7	We perform planning, organising, leading and control.	1	2	3	4	5
3.1.8	We have a formalised decision-making process.	1	2	3	4	5
3.1.9	We implement our chosen strategies.	1	2	3	4	5
3.1.10	We monitor the performance of our strategies.	1	2	3	4	5

SECTION 2: COMPETITIVE INTELLIGENCE

Please indicate on a scale of 1 to 5 to what level you agree with the following statements about strategic management, decision making and planning. 1 equals strongly disagree and 5 equals strongly agree.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

3.2.1	We are aware of competitive intelligence.	1	2	3	4	5
3.2.2	Our employees understand what competitive intelligence is.	1	2	3	4	5
3.2.3	We practice competitive intelligence in our business.	1	2	3	4	5
3.2.4	Our managers support competitive intelligence practice.	1	2	3	4	5
3.2.5	Our business has a formalised competitive intelligence function.	1	2	3	4	5
3.2.6	We collect information about our competitors and analyse it.	1	2	3	4	5
3.2.7	We have a formalised competitive intelligence process.	1	2	3	4	5
3.2.8	We gather competitive intelligence for decision making.	1	2	3	4	5
3.2.9	We know the prices of our competitors' products or services.	1	2	3	4	5
3.2.10	We know who our competitors' customers are.	1	2	3	4	5
3.2.11	We know our competitors' strengths and weaknesses.	1	2	3	4	5
3.2.12	We know who our competitors' suppliers are.	1	2	3	4	5

3.2.13	We hire people or other businesses to collect information on our behalf.	1	2	3	4	5
3.2.14	We have competitive intelligence professionals in our business.	1	2	3	4	5
3.2.15	We have a computerised competitive intelligence system.	1	2	3	4	5
3.2.16	Competition is too high in our business sector.	1	2	3	4	5
3.2.17	Competitive intelligence provides us with competitive advantage over our rivals.	1	2	3	4	5

3.2.18 How long have you been practicing competitive intelligence?

Mark the most appropriate block with an X.

Less than 1 year		1 to 2 years		3 to 5 years		6 or more years	

3.2.19 Which of the following are your sources of information on competitive intelligence?

Consider all the options and mark the appropriate ones with an X.

Source			**Source**			**Source**		
1	Customers		10	Suppliers		19	Bankers	
2	Academics		11	Lawyers		20	Consultants	
3	Business associates		12	Newspapers		21	Board members	
4	Government officials		13	Periodicals		22	Internet and extranets	
5	Conferences		14	Senior management		23	Advertising agencies	
6	Interviews and surveys		15	Intranet		24	Money facts	
7	Professional meetings		16	Business library		25	Government publications	
8	Internal reports and research		17	Industry publications and reports		26	Business trips and trade shows	
9	Peer colleagues and subordinates		18	Internal memoranda and circulars				

3.2.20 Which of the following analytical tools or methods are used by your enterprise to generate competitive intelligence?

Consider all the options and mark the appropriate ones with an X.

Analytical tool			Analytical tool		
1	Financial ratio		5	Statistical programmes	
2	Valuation technique		6	Teamwork and brainstorming	
3	PESTE		7	SWOT analysis	
4	Value chain analysis		8	Macro-environment analysis	

3.2.21 Which of the following dissemination or distribution methods are used by your enterprise to present competitive intelligence results?

Consider all the options and mark the appropriate ones with an X.

Method			Method			Method		
1	Briefs		5	Intranet		9	Daily flashes	
2	Conferences		6	Presentations		10	Central database	
3	E-mails		7	Written reports		11	Newsletters	
4	Face-to-face meetings		8	Industry audits		12	Seminars	

3.2.22 Which of the following challenges does your enterprise experience when practicing competitive intelligence?

Consider all the options and mark the appropriate ones with an X.

Challenge			Challenge		
1	Creating a participatory environment and awareness of CI		6	Budgetary constraints	
2	Management participation and visibility		7	Personnel issues	
3	Showing return on investment/value		8	Identifying critical information needs and the effective and timely gathering of relevant information	
4	Training and education in CI is a global challenge		9	Competitive intelligence ethics	
5	Lack of human resources		10	Lack of time	

3.2.23 Where in your business is competitive intelligence located?

Mark the most appropriate block with an X.

Independence department		Marketing department		Knowledge management	
Market research (MR)		Strategy management department		Other (specify):	

3.2.24 Through which of the following methods did your business become aware of competitive intelligence?

Consider all the options and mark the appropriate ones with an X.

Method			**Method**			**Method**		
1	Education and training		7	Seminar		13	Speech	
2	Collaborating entities		8	Social network		14	Television	
3	Magazine		9	Friends and family		15	Workshop	
4	Conference		10	Business associates		16	Business meeting	
5	Internet		11	Blog		17	Newspaper	
6	Trade show		12	Competitor		18	Government finance	

APPENDIX B: FREQUENCY DATA

2.1 Form of business enterprise	Number of respondents	Percentage of respondents
Close corporation	55	55
Company	30	30
Partnership	14	14
Sole proprietorship	1	1
Total	**100**	**100**

2.2 Business sector	Number of respondents	Percentage of respondents
Retail and motor trade, and repair services	23	23
Catering, accommodation and other trade	19	19
Transport, storage and communications	18	18
Manufacturing	12	12
Construction	8	8
Finance and business services	8	8
Wholesale trade, commercial agents and allied services	5	5
Community, social and personal service	3	3
Electricity, gas and water	2	2
Cleaning	1	1
Media and marketing	1	1
Total	**100**	**100**

2.3 Number of employees	Number of respondents	Percentage of respondents
1 to 5	19	19
6 to 10	36	36
11 to 20	30	30
21 to 50	15	15
51 to 500	0	0
Total	**100**	**100**

2.4 Business Location	Number of respondents	Percentage of respondents
Pretoria CBD	34	34
Silverton/Pretoria East	17	17
Atteridgeville	9	9
Mamelodi	8	8
Winterveld	7	7
Eesterust	7	7
Ga-rankuwa	6	6
Rosslyn	6	6
Mabopane	6	6
Total	**100**	**100**

2.5 Years of business operation	Number of respondents	Percentage of respondents
6 or more years	50	50
3 to 5 years	39	39
1 to 2 years	11	11
Less than 1 year	0	0
Total	**100**	**100**

2.6 Total annual turnover	Number of respondents	Percentage of respondents
Less than R1m	50	50
R1m to R5m	48	48
R6m to R10m	2	2
Total	**100**	**100**

2.7 Global market exposure	Number of respondents
Africa	100
North America	2
South America	2
Asia	2
India	2
Europe	1
Brazil	1
Australia	1
China	1

2.8 Position in business	Number of respondents	Percentage of respondents
Owner	29	29
Manager	15	15
Managing director	12	12
General manager	10	10
Marketing manager	8	8
CEO	7	7
Operation manager	6	6
Sales manager	6	6
Human resources manager	2	2
Accounts manager	1	1
Chairperson	1	1
Creative director	1	1
Director	1	1
Purchasing manager	1	1
Total	**100**	**100**

2.9 Educational level	Number of respondents	Percentage of respondents
Undergraduate diploma or degree	47	47
Grades 11 to 12	27	27
Honours degree	21	21
Master's or doctoral degree	5	5
Total	**100**	**100**

2.10 Years of working experience	Number of respondents	Percentage of respondents
3 to 5 years	50	50
6 or more years	45	45
1 to 2 years	4	4
Less than 1 year	1	1
Total	**100**	**100**

3.1.1 We have a formal strategic plan.	Number of respondents	Percentage of respondents
Disagree	4	4
Neutral	26	26
Agree	43	43
Strongly agree	27	27
Total	**100**	**100**

3.1.2 Our strategic management process is formalised.	Number of respondents	Percentage of respondents
Strongly disagree	2	2
Disagree	18	18
Neutral	36	36
Agree	31	31
Strongly agree	13	13
Total	**100**	**100**

3.1.3 Information is valuable for decision making.	Number of respondents	Percentage of respondents
Agree	16	16
Strongly agree	84	84
Total	**100**	**100**

3.1.4 We are aware of our weaknesses and strengths.	Number of respondents	Percentage of respondents
Disagree	1	1
Agree	38	38
Strongly agree	61	61
Total	**100**	**100**

3.1.5 We are aware of our opportunities and threats.	Number of respondents	Percentage of respondents
Agree	37	37
Strongly agree	63	63
Total	**100**	**100**

3.1.6 We analyse our competitors.	Number of respondents	Percentage of respondents
Disagree	1	1
Neutral	2	2
Agree	32	32
Strongly agree	65	65
Total	**100**	**100**

3.1.7 We perform planning, organising, leading and control.	Number of respondents	Percentage of respondents
Disagree	2	2
Neutral	5	5
Agree	58	58
Strongly agree	35	35
Total	**100**	**100**

3.1.8 We have a formalised decision-making process.	Number of respondents	Percentage of respondents
Strongly disagree	8	8
Disagree	16	16
Neutral	19	19
Agree	35	35
Strongly agree	22	22
Total	**100**	**100**

3.1.9 We implement our chosen strategies.	Number of respondents	Percentage of respondents
Disagree	1	1
Neutral	4	4
Agree	62	62
Strongly agree	33	33
Total	**100**	**100**

3.1.10 We monitor the performance of our strategies.	Number of respondents	Percentage of respondents
Disagree	1	1
Neutral	13	13
Agree	56	56
Strongly agree	30	30
Total	**100**	**100**

3.2.1 We are aware of competitive intelligence.	Number of respondents	Percentage of respondents
Strongly disagree	1	1
Neutral	11	11
Agree	62	62
Strongly agree	26	26
Total	**100**	**100**

3.2.2 Our employees understand what competitive intelligence is.	Number of respondents	Percentage of respondents
Strongly disagree	2	2
Disagree	16	16
Neutral	50	50
Agree	30	30
Strongly agree	2	2
Total	**100**	**100**

3.2.3 We practice competitive intelligence in our business.	Number of respondents	Percentage of respondents
Strongly disagree	1	1
Disagree	1	1
Neutral	2	2
Agree	44	44
Strongly agree	52	52
Total	**100**	**100**

3.2.4 Our managers support competitive intelligence practice.	Number of respondents	Percentage of respondents
Strongly disagree	1	1
Disagree	6	6
Neutral	30	30
Agree	55	55
Strongly agree	8	8
Total	**100**	**100**

3.2.5 Our business has a formalised competitive intelligence function.	Number of respondents	Percentage of respondents
Strongly disagree	36	36
Disagree	31	31
Neutral	17	17
Agree	13	13
Strongly agree	3	3
Total	**100**	**100**

3.2.6 We collect information about our competitors and analyse it.	Number of respondents	Percentage of respondents
Strongly disagree	2	2
Disagree	3	3
Neutral	25	25
Agree	69	69
Strongly agree	1	1
Total	**100**	**100**

3.2.7 We have a formalised competitive intelligence process.	Number of respondents	Percentage of respondents
Strongly disagree	40	40
Disagree	34	34
Neutral	13	13
Agree	11	11
Strongly agree	2	2
Total	**100**	**100**

3.2.8 We gather competitive intelligence for decision making.	Number of respondents	Percentage of respondents
Strongly disagree	1	1
Disagree	2	2
Neutral	2	2
Agree	21	21
Strongly agree	74	74
Total	**100**	**100**

3.2.9 We know the prices of our competitors' products or services.	Number of respondents	Percentage of respondents
Neutral	1	1
Agree	50	50
Strongly agree	49	49
Total	**100**	**100**

3.2.10 We know who our competitors' customers are.	Number of respondents	Percentage of respondents
Neutral	7	7
Agree	60	60
Strongly agree	33	33
Total	**100**	**100**

3.2.11 We know our competitors' strengths and weaknesses.	Number of respondents	Percentage of respondents
Disagree	13	13
Neutral	42	42
Agree	34	34
Strongly agree	11	11
Total	**100**	**100**

3.2.12 We know who our competitors' suppliers are.	Number of respondents	Percentage of respondents
Strongly disagree	2	2
Disagree	14	14
Neutral	42	42
Agree	25	25
Strongly agree	17	17
Total	**100**	**100**

3.2.13 We hire people or other businesses to collect information on our behalf.	Number of respondents	Percentage of respondents
Strongly disagree	16	16
Disagree	17	17
Neutral	10	10
Agree	55	55
Strongly agree	2	2
Total	**100**	**100**

3.2.14 We have competitive intelligence professionals in our business.	Number of respondents	Percentage of respondents
Strongly disagree	45	45
Disagree	36	36
Neutral	10	10
Agree	9	9
Total	**100**	**100**

3.2.15 We have a computerised competitive intelligence system.	Number of respondents	Percentage of respondents
Strongly disagree	50	50
Disagree	38	38
Neutral	11	11
Strongly agree	1	1
Total	**100**	**100**

3.2.16 Competition is too high in our business sector.	Number of respondents	Percentage of respondents
Neutral	2	2
Agree	27	27
Strongly agree	71	71
Total	**100**	**100**

3.2.17 Competitive intelligence provides us with competitive advantage over our rivals.	Number of respondents	Percentage of respondents
Strongly disagree	1	1
Neutral	11	11
Agree	33	33
Strongly agree	55	55
Total	**100**	**100**

3.2.18 How long have you been practicing competitive intelligence?	Number of respondents	Percentage of respondents
3 to 5 years	50	50
6 or more years	30	30
1 to 2 years	17	17
Less than 1 year	3	3
Total	**100**	**100**

3.2.19 Which of the following are your sources of information on competitive intelligence?	Number of respondents
Customers	100
Suppliers	88
Internet and extranets	74
Peer colleagues and subordinates	60
Business trips and trade shows	54
Business associates	50
Newspapers	50
Senior management	48
Conferences	35
Internal reports and research	32
Professional meetings	24
Board members	23
Advertising agencies	23
Consultants	22
Industry publications and reports	19
Academics	17
Government officials	15
Government publications	15
Intranet	11
Business library	11
Lawyers	8
Interviews and surveys	7
Internal memoranda and circulars	6
Bankers	5
Money facts	4

3.2.20 Which of the following analytical tools or methods are used by your enterprise to generate competitive intelligence?	**Number of respondents**
Teamwork and brainstorming	93
SWOT analysis	82
Macro-environment analysis	73
Value chain analysis	53
PESTE	36
Financial ratio	16
Valuation technique	5
Statistical programmes	1

3.2.21 Which of the following dissemination or distribution methods are used by your enterprise to present competitive intelligence results?	**Number of respondents**
Face-to-face meetings	100
E-mails	86
Presentations	79
Briefs	78
Written reports	61
Newsletters	24
Intranet	18
Conferences	11
Seminars	9
Industry audits	4
Central database	3
Daily flashes	2

3.2.22 Which of the following challenges does your enterprise experience when practicing competitive intelligence?	Number of respondents
Lack of time	99
Lack of human resources	97
Budgetary constraints	97
Creating a participatory environment and awareness of CI	64
Training and education in CI is a global challenge	39
Identifying critical information needs and the effective and timely gathering of relevant information	36
Management participation and visibility	35
Personnel issues	34
Showing return on investment/value	31
Competitive intelligence ethics	6

3.2.23 Where in your business is competitive intelligence located?	Number of respondents
Independence department	43
Market research (MR)	29
Marketing department	25
Knowledge management	1
Strategy management department	1
Public relations	1

3.2.24 Through which of the following methods did your business become aware of competitive intelligence?	Number of respondents
Education and training	91
Social network	88
Friends and family	80
Internet	79
Newspaper	67
Conference	62
Business associates	62
Business meeting	60
Competitor	54
Seminar	51
Speech	44
Magazine	39
Television	34
Workshop	33
Blog	23
Trade show	16
Collaborating entities	14
Government finance	8

APPENDIX C: DESCRIPTIVE STATISTICS

Variable	N	Min	Max	Mean	Standard deviation	Variance
Section 3.1						
3.1.1	100	2	5	3.93	0.832	0.692
3.1.2	100	1	5	3.35	0.989	0.977
3.1.3	100	4	5	4.84	0.368	0.136
3.1.4	100	2	5	4.59	0.552	0.485
3.1.5	100	4	5	4.63	0.485	0.235
3.1.6	100	2	5	4.61	0.584	0.341
3.1.7	100	2	5	4.26	0.645	0.417
3.1.8	100	1	5	3.47	1.226	1.504
3.1.9	100	2	5	4.27	0.584	0.341
3.1.10	100	2	5	4.15	0.672	0.452

Variable	N	Min	Max	Mean	Standard deviation	Variance
Section 3.2						
3.2.1	100	1	5	4.12	0.671	0.450
3.2.2	100	1	5	3.14	0.779	0.606
3.2.3	100	1	5	4.45	0.687	0.472
3.2.4	100	1	5	3.63	0.761	0.579
3.2.5	100	1	5	2.16	1.143	1.307
3.2.6	100	2	5	4.64	0.659	0.435
3.2.7	100	1	5	2.01	1.078	1.162
3.2.8	100	1	5	4.65	0.716	0.513
3.2.9	100	3	5	4.48	0.522	0.272
3.2.10	100	3	5	4.26	0.579	0.336
3.2.11	100	2	5	3.43	0.856	0.732
3.2.12	100	1	5	3.41	0.996	0.992
3.2.13	100	1	5	3.10	1.202	1.444
3.2.14	100	1	4	1.83	0.943	0.890
3.2.15	100	1	3	1.61	0.680	0.463
3.2.16	100	3	5	4.69	0.506	0.256
3.2.17	100	1	5	4.41	0.767	0.588

APPENDIX D: CORRELATION MATRIX AND CROSS-TABULATION

Correlation matrix

Sections 2 and 3.1								
	Q2.1	**Q2.2**	**Q2.3**	**Q2.4**	**Q2.5**	**Q2.6**	**Q2.9**	**Q2.10**
Q3.1.1	0.000	0.272	0.000	0.001	0.037	0.045	0.066	0.392
Q3.1.2	0.000	0.194	0.001	0.000	0.090	0.021	0.009	0.136
Q3.1.3	0.683	0.527	0.223	0.058	0.015	0.242	0.029	0.845
Q3.1.4	0.000	0.501	0.025	0.577	0.322	0.003	0.035	0.163
Q3.1.5	0.045	0.644	0.004	0.091	0.363	0.002	0.096	0.044
Q3.1.6	0.000	0.256	0.026	0.613	0.008	0.158	0.733	0.073
Q3.1.7	0.000	0.524	0.006	0.168	0.079	0.005	0.389	0.019
Q3.1.8	0.004	0.738	0.023	0.000	0.150	0.268	0.732	0.808
Q3.1.9	0.000	0.611	0.005	0.009	0.055	0.345	0.111	0.230
Q3.1.10	0.000	0.665	0.001	0.207	0.009	0.101	0.036	0.036

Sections 2 and 3.2								
	Q2.1	**Q2.2**	**Q2.3**	**Q2.4**	**Q2.5**	**Q2.6**	**Q2.9**	**Q2.10**
Q3.2.1	0.015	0.519	0.000	0.651	0.000	0.012	0.083	0.746
Q3.2.2	0.000	0.260	0.000	0.113	0.000	0.007	0.008	0.920
Q3.2.3	0.000	0.177	0.003	0.183	0.000	0.051	0.204	0.953
Q3.2.4	0.001	0.613	0.001	0.050	0.043	0.022	0.092	0.943
Q3.2.5	0.192	0.197	0.008	0.128	0.142	0.080	0.000	0.361
Q3.2.6	0.000	0.075	0.005	0.276	0.118	0.020	0.136	0.997
Q3.2.7	0.348	0.250	0.013	0.009	0.161	0.132	0.000	0.926
Q3.2.8	0.000	0.539	0.038	0.854	0.021	0.339	0.076	0.015
Q3.2.9	0.552	0.944	0.076	0.064	0.721	0.072	0.062	0.768
Q3.2.10	0.719	0.592	0.067	0.196	0.336	0.128	0.326	0.820
Q3.2.11	0.388	0.752	0.025	0.012	0.173	0.075	0.112	0.097
Q3.2.12	0.310	0.165	0.627	0.499	0.158	0.827	0.570	0.817
Q3.2.13	0.069	0.360	0.008	0.823	0.248	0.046	0.433	0.803
Q3.2.14	0.816	0.211	0.004	0.027	0.028	0.000	0.000	0.269
Q3.2.15	0.438	0.841	0.003	0.002	0.110	0.000	0.000	0.913
Q3.2.16	0.019	0.001	0.003	0.686	0.140	0.006	0.199	0.955
Q3.2.17	0.000	0.098	0.000	0.038	0.001	0.006	0.164	0.417

Section 3.1	3.1.1	3.1.2	3.1.3	3.1.4	3.1.5	3.1.6	3.1.7	3.1.8	3.1.9
3.1.1									
3.1.2	0.755								
3.1.3	0.392	0.322							
3.1.4	0.421	0.377	0.220						
3.1.5	0.411	0.357	0.344	0.823					
3.1.6	0.255	0.239	0.083	0.188	0.056				
3.1.7	0.561	0.568	0.262	0.529	0.504	0.325			
3.1.8	0.607	0.721	0.280	0.198	0.210	0.202	0.520		
3.1.9	0.497	0.430	0.156	0.378	0.356	0.342	0.563	0.498	
3.1.10	0.525	0.483	0.220	0.358	0.327	0.408	0.514	0.526	0.823

Section 3.2	3.2.1	3.2.2	3.2.3	3.2.4	3.2.5	3.2.6	3.2.7	3.2.8	3.2.9	3.2.10	3.2.11	3.2.12	3.2.13	3.2.14	3.2.15	3.2.16
3.2.1																
3.2.2	0.625															
3.2.3	0.692	0.693														
3.2.4	0.602	0.480	0.573													
3.2.5	0.449	0.519	0.383	0.452												
3.2.6	0.304	0.414	0.473	0.275	0.064											
3.2.7	0.334	0.371	0.308	0.386	0.736	0.005										
3.2.8	0.551	0.433	0.570	0.335	0.192	0.436	0.031									
3.2.9	0.267	0.305	0.180	0.121	0.158	0.184	0.081	0.184								
3.2.10	0.257	0.299	0.185	0.175	0.257	0.115	0.190	0.197	0.518							
3.2.11	0.243	0.318	0.183	0.355	0.455	0.188	0.422	0.100	0.257	0.465						
3.2.12	0.213	0.238	0.082	0.229	0.359	0.212	0.354	0.118	0.181	0.426	0.621					
3.2.13	0.185	0.395	0.226	0.173	0.268	0.212	0.210	0.170	0.261	0.194	0.301	0.252				
3.2.14	0.463	0.404	0.368	0.503	0.559	0.128	0.598	0.210	0.126	0.156	0.304	0.333	0.336			
3.2.15	0.074	0.060	0.001	0.169	0.002	-0.080	0.047	0.083	0.133	0.123	0.004	-0.014	0.133	0.234		
3.2.16	0.230	0.290	0.260	0.224	0.087	0.328	0.061	0.227	0.225	0.209	0.124	0.315	0.118	0.227	0.066	
3.2.17	0.473	0.580	0.528	0.349	0.362	0.395	0.264	0.466	0.185	0.167	0.252	0.360	0.262	0.279	0.106	0.591

Cross tabulations

		Q2.1				Total
		Sole proprietorship	Partnership	Close corporation	Company	
Q3.2.10	Neutral	0	1	4	2	7
	Agree	0	10	34	16	60
	Strongly agree	1	3	17	12	33
	Total	1	14	55	30	100

		Q2.1				Total
		Sole proprietorship	Partnership	Close corporation	Company	
Q3.2.14	Strongly disagree	1	7	26	11	45
	Disagree	0	4	21	11	36
	Neutral	0	2	5	3	10
	Agree	0	1	3	5	9
	Total	1	14	55	30	100

		Q3.1.8					Total
		Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**	
Q2.2	**Manufacturing**	1	2	1	4	4	12
	Construction	1	1	2	1	3	8
	Wholesale trade, commercial agents and allied services	0	0	1	2	2	5
	Transport, storage and communications	1	4	5	7	1	18
	Community, social and personal service	1	0	1	1	0	3
	Electricity, gas and water	0	1	1	0	0	2
	Retail and motor trade, and repair services	2	1	4	12	4	23
	Catering, accommodation and other trade	2	5	2	6	4	19
	Finance and business services	0	2	2	1	3	8
	Total	8	16	19	34	21	98

		Q3.2.9			Total
		Neutral	Agree	Strongly agree	
Q2.2	Manufacturing	0	8	4	12
	Construction	0	4	4	8
	Wholesale trade, commercial agents and allied services	0	1	4	5
	Transport, storage and communications	0	7	11	18
	Community, social and personal service	0	2	1	3
	Electricity, gas and water	0	1	1	2
	Retail and motor trade, and repair services	1	11	11	23
	Catering, accommodation and other trade	0	11	8	19
	Finance and business services	0	4	4	8
		1	49	48	98

		Q3.2.11				Total
		Disagree	Neutral	Agree	Strongly agree	
Q2.2	Manufacturing	2	7	2	1	12
	Construction	2	3	3	0	8
	Wholesale trade, commercial agents and allied services	0	2	2	1	5
	Transport, storage and communications	2	5	9	2	18
	Community, social and personal service	0	2	1	0	3
	Electricity, gas and water	0	2	0	0	2
	Retail and motor trade, and repair services	2	12	5	4	23
	Catering, accommodation and other trade	3	6	9	1	19
	Finance and business services	2	2	2	2	8
	Total	13	41	33	11	98

		Q3.2.15			Total
		Strongly disagree	Disagree	Neutral	
Q2.2	Manufacturing	7	4	1	12
	Construction	5	2	1	8
	Wholesale trade, commercial agents and allied services	2	1	2	5
	Transport, storage and communications	10	7	1	18
	Community, social and personal service	1	1	1	3
	Electricity, gas and water	0	2	0	2
	Retail and motor trade, and repair services	10	11	2	23
	Catering, accommodation and other trade	11	7	1	19
	Finance and business services	4	3	1	8
	Total	50	37	10	98

		Q3.2.8					Total
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
Q2.4	Atteridgeville	0	0	0	4	5	9
	Mamelodi	0	0	0	4	4	8
	Winterveld	0	0	0	1	6	7
	Eesterust	0	0	0	0	7	7
	Pretoria CBD	0	1	1	4	28	34
	Ga-rankuwa	0	0	0	2	4	6
	Rosslyn	0	0	0	0	6	6
	Mabopane	0	0	0	2	4	6
	Silverton/Pretoria East	1	1	1	4	10	17
	Total	1	2	2	21	74	100

		Q3.2.13					Total
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
Q2.4	Atteridgeville	1	2	0	5	1	9
	Mamelodi	2	2	0	4	0	8
	Winterveld	1	1	1	4	0	7
	Eesterust	3	2	0	2	0	7
	Pretoria CBD	4	5	5	19	1	34
	Ga-rankuwa	2	0	2	2	0	6
	Rosslyn	0	1	1	4	0	6
	Mabopane	0	1	0	5	0	6
	Silverton/Pretoria East	3	3	1	10	0	17
	Total	16	17	10	55	2	100

		Q2.5			Total
		3 to 5 years	1 to 2 years	6 or more years	
Q3.2.9	Neutral	0	0	1	1
	Agree	18	7	25	50
	Strongly agree	21	4	24	49
	Total	39	11	50	100

		Q2.6			Total
		Less than R1m	R1m to R5m	R6m to R10m	
Q3.2.12	Strongly disagree	1	1	0	2
	Disagree	7	7	0	14
	Neutral	24	17	1	42
	Agree	12	13	0	25
	Strongly agree	6	10	1	17
	Total	50	48	2	100

		Q2.9				Total
		Grades 11 to 12	Undergraduate degree or diploma	Honours degree	Master's or doctoral degree	
Q3.1.6	Disagree	0	0	1	0	1
	Neutral	1	1	0	0	2
	Agree	10	16	5	1	32
	Strongly agree	16	30	15	4	65
	Total	27	47	21	5	100

		Q2.9				Total
		Grades 11 to 12	Undergraduate degree or diploma	Honours degree	Master's or doctoral degree	
Q3.1.8	Strongly disagree	3	3	2	0	8
	Disagree	5	6	5	0	16
	Neutral	6	9	2	2	19
	Agree	10	18	6	1	35
	Strongly agree	3	11	6	2	22
	Total	27	47	21	5	100

		Q2.10				Total
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years	
Q3.1.3	**Agree**	0	1	9	6	16
	Strongly agree	1	3	41	39	84
	Total	1	4	50	45	100

		Q2.10				Total
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years	
Q3.1.8	**Strongly disagree**	0	0	6	2	8
	Disagree	0	1	7	8	16
	Neutral	0	2	9	8	19
	Agree	1	1	16	17	35
	Strongly agree	0	0	12	10	22
	Total	1	4	50	45	100

		Q2.10				Total
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years	
Q3.2.1	**Strongly disagree**	0	0	1	0	1
	Neutral	0	1	5	5	11
	Agree	0	3	30	29	62
	Strongly agree	1	0	14	11	26
	Total	1	4	50	45	100

		Q2.10				Total
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years	
Q3.2.2	**Strongly disagree**	0	0	1	1	2
	Disagree	0	2	9	5	16
	Neutral	1	1	23	25	50
	Agree	0	1	16	13	30
	Strongly agree	0	0	1	1	2
	Total	1	4	50	45	100

		Q2.10				Total
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years	
Q3.2.3	**Strongly disagree**	0	0	1	0	1
	Disagree	0	0	0	1	1
	Neutral	0	0	1	1	2
	Agree	0	3	20	21	44
	Strongly agree	1	1	28	22	52
	Total	1	4	50	45	100

		Q2.10				Total
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years	
Q3.2.4	**Strongly disagree**	0	0	0	1	1
	Disagree	0	0	3	3	6
	Neutral	0	2	13	15	30
	Agree	1	2	31	21	55
	Strongly agree	0	0	3	5	8
	Total	1	4	50	45	100

		Q2.10				Total
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years	
Q3.2.6	**Disagree**	0	0	1	1	2
	Neutral	0	0	1	2	3
	Agree	0	1	14	11	26
	Strongly agree	1	3	34	31	69
	Total	1	4	50	45	100

		Q2.10				Total
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years	
Q3.2.7	**Strongly disagree**	1	0	22	17	40
	Disagree	0	2	16	16	34
	Neutral	0	1	7	5	13
	Agree	0	1	4	6	11
	Strongly agree	0	0	1	1	2
	Total	1	4	50	45	100

		Q2.10				Total
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years	
Q3.2.9	**Neutral**	0	0	0	1	1
	Agree	0	2	28	20	50
	Strongly agree	1	2	22	24	49
	Total	1	4	50	45	100

		Q2.10				Total
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years	
Q3.2.10	**Neutral**	0	0	4	3	7
	Agree	0	3	31	26	60
	Strongly agree	1	1	15	16	33
	Total	1	4	50	45	100

		Q2.10				Total
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years	
Q3.2.12	**Strongly disagree**	0	0	1	1	2
	Disagree	0	1	6	7	14
	Neutral	0	1	24	17	42
	Agree	0	1	13	11	25
	Strongly agree	1	1	6	9	17
	Total	1	4	50	45	100

		Q2.10				Total
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years	
Q3.2.13	**Strongly disagree**	0	1	11	4	16
	Disagree	0	1	9	7	17
	Neutral	0	0	4	6	10
	Agree	1	2	24	28	55
	Strongly agree	0	0	2	0	2
	Total	1	4	50	45	100

		Q2.10				Total
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years	
Q3.2.15	Strongly disagree	1	2	26	21	50
	Disagree	0	2	19	17	38
	Neutral	0	0	4	7	11
	Total	1	4	50	45	100

		Q2.10				Total
		Less than 1 year	1 to 2 years	3 to 5 years	6 or more years	
Q3.2.16	Neutral	0	0	1	1	2
	Agree	0	2	13	12	27
	Strongly agree	1	2	36	32	71
	Total	1	4	50	45	100

		3.1.2					Total
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
3.1.1	Disagree	1	3	0	0	0	4
	Neutral	1	12	11	1	1	26
	Agree	0	3	24	16	0	43
	Strongly agree	0	0	1	14	12	27
	Total	2	18	36	31	13	100

		3.1.5		Total
		Agree	Strongly agree	
3.1.4	Disagree	1	0	1
	Agree	34	4	38
	Strongly agree	2	59	61
	Total	37	63	100

		3.1.8					
		Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**	**Total**
3.1.2	**Strongly disagree**	2	0	0	0	0	2
	Disagree	3	9	5	0	1	18
	Neutral	3	6	13	12	2	36
	Agree	0	1	1	19	10	31
	Strongly agree	0	0	0	4	9	13
	Total	8	16	19	35	22	100

		3.1.10				
		Disagree	**Neutral**	**Agree**	**Strongly agree**	**Total**
3.1.9	**Disagree**	1	0	0	0	1
	Neutral	0	4	0	0	4
	Agree	0	9	51	2	62
	Strongly agree	0	0	5	28	33
	Total	1	13	56	30	100

		3.2.7					
		Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**	**Total**
3.2.5	**Strongly disagree**	26	9	0	1	0	36
	Disagree	13	15	3	0	0	31
	Neutral	1	7	9	0	0	17
	Agree	0	2	1	8	2	13
	Strongly agree	0	1	0	2	0	3
	Total	40	34	13	11	2	100

APPENDIX E: INTERNAL CONSISTENCY DATA

(Scale: ALL VARIABLES)

Section 3.1 of the questionnaire

Case processing summary

	N	%
Cases	100	100
Valid excluded[a]	0	.0
Total	100	100

a. List-wise deletion based on all variables in the procedure

Reliability statistics

Cronbach's alpha	N of items
0.863	10

Section 3.2 of the questionnaire

Case processing summary

	N	%
Cases	100	100
Valid excluded[a]	0	.0
Total	100	100

a. List-wise deletion based on all variables in the procedure

Reliability statistics

Cronbach's alpha	N of items
0.806	17