

**THE RELEVANCE OF THE HIERARCHICAL MODEL OF MARKET
ENTRY MODES TO SOUTH AFRICAN MANUFACTURING FIRMS
ENTERING MOZAMBIQUE**

RESEARCH REPORT
presented to the
GRADUATE SCHOOL OF BUSINESS LEADERSHIP,
UNIVERSITY OF SOUTH AFRICA
in partial fulfilment of the requirements for a
MASTER'S DEGREE IN BUSINESS LEADERSHIP

By
T B Davis
(Student No: 70506574)

2006

ABSTRACT

The decision to enter a foreign market has long-term implications for the investing firm, as has its choice of entry mode. The hierarchical model of market entry modes proposes that entry modes can be categorised as equity-based or non-equity based, and further categorised by type as joint ventures and wholly owned subsidiaries, exports and contractual agreements. The hierarchical model of market entry modes proposes that there are factors that influence the entry mode at the level of equity versus non-equity but not within the type of equity or non-equity.

This study evaluated the applicability of the hierarchical model of entry modes to Mozambique. The study included exploratory analysis of criteria considered when firms entered Mozambique, criteria considered unique to Mozambique and the approach to the entry mode decision.

Research was limited to South African manufacturing firms who had entered the Mozambique market between 1990 and 2005. The independent variables (determinants of entry mode) considered were: prioritised location, host country risk, management orientation, trade relationship and industry factors.

The results showed that the firms entering Mozambique did not follow the hierarchical model of entry modes. The exploratory data revealed other factors that had important implications for both the Mozambique government and firms intending to enter Mozambique, namely bilateral trade and country credit rating.

This research has highlighted several areas of value to the Mozambique government with regard to where legislation may be amended to create a business-friendly environment. The considerations for firms wishing to enter Mozambique centre on criteria found to be unique to Mozambique, which may therefore not form part of the firms' normal screening process and which may hitherto have been unconsidered.

DECLARATION

"I declare that *The relevance of the hierarchical model of market entry modes to South African manufacturing firms entering Mozambique* is my original work, that all the sources I have used or quoted have been indicated and acknowledged as complete references, and that it has not been submitted for degree purposes previously."

.....

Name

.....

Date

.....

Signature.

ACKNOWLEDGEMENTS

I am very grateful to my study leader, Mr Jopie Coetzee (Senior Lecturer: International Business), for his invaluable support and guidance from beginning to end.

I would also like to express my sincere gratitude to my family and friends for their unconditional support and patience.

TABLE OF CONTENTS

	Page
ABSTRACT	I
DECLARATION.....	II
ACKNOWLEDGEMENTS.....	II
LIST OF TABLES	IV
LIST OF FIGURES	V
DEFINITIONS AND ABBREVIATIONS	I
1. ORIENTATION	1
1.1 Audience.....	1
1.2 Origin, background and contextual setting.....	1
1.3 Research question.....	3
1.4 Research objectives	3
1.5 Delimitations of the study.....	4
1.6 Importance of the study	4
1.7 Key assumptions	5
1.8 Chapter outlines	5
2. LITERATURE REVIEW.....	7
2.1 Review of the Mozambique manufacturing industry	7
2.2 Review of industry publications	9
2.3 Review of entry modes	13
2.3.1 Exporting.....	14
2.3.2 Turnkey projects	14
2.3.3 Licensing.....	15
2.3.4 Franchising	15
2.3.5 Joint ventures.....	15
2.3.6 Wholly owned subsidiaries.....	16
2.4 Strategic foundation.....	16
2.5 Review of entry mode selection theories	16
2.5.1 The internalisation/stages approach	16
2.5.2 Transaction cost approach.....	17

	Page
2.5.3 Eclectic framework approach	17
2.5.4 Summary of approaches	18
3. THEORETICAL FOUNDATION	20
3.1 Internalisation/stages theory	20
3.2 Transaction cost theory	21
3.3 Eclectic paradigm	22
3.4 Hierarchical model of market entry modes	24
3.5 Hypothesis development	25
3.5.1 Prioritised location.....	26
3.5.2 Host country risk	27
3.5.3 Management orientation	27
3.5.4 Trade relationship	28
3.5.5 Political relationship	28
3.5.6 Marketing management	28
3.5.7 Asset management	28
3.6 Hypothesis statements	28
4. RESEARCH METHODOLOGY	30
4.1 Contextualisation of this research.....	30
4.2 Research design.....	31
4.3 Sample selection and data collection methodology	31
4.4 Measuring instrument	32
4.4.1 Format	32
4.4.2 Quantitative analytical techniques.....	34
4.4.3 Qualitative analytical techniques.....	35
4.4.4 Validity and reliability	36
5. RESEARCH RESULTS.....	37
5.1 Introduction.....	37
5.2 Characteristics of the sample	37
5.2.1 Data source.....	37
5.2.2 Data sampling	37
5.2.3 Questionnaire distribution	37
5.2.4 Response rate.....	38
5.3 Measurement of the dependent variable	38
5.4 Measurement of the independent variables.....	40

	Page
5.4.1	Location factors..... 40
5.4.2	Host country risk factors 40
5.4.3	Risk orientation and power distance 42
5.4.4	Interaction between host and home countries 43
5.4.5	Industry factors 43
5.5	The results of testing the hypotheses 44
5.5.1	Location factors..... 44
5.5.2	Host country risk factors 44
5.5.3	Risk orientation 45
5.5.4	Power distance 45
5.5.5	Interaction (bilateral trade) 46
5.5.6	Industry factors 46
5.6	Summary of results..... 47
5.7	Measures of association 48
5.7.1	Binomial logistic regression..... 48
5.7.2	Correlation matrix..... 49
5.8	Qualitative analysis..... 52
5.8.1	Criteria considered in market entry decision 52
5.8.2	Criteria unique to Mozambique 53
5.8.3	Market entry decision process 53
6.	DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS..... 55
6.1	Introduction..... 55
6.2	Location factors 55
6.3	Host country risk factors 56
6.4	Risk orientation..... 56
6.5	Power distance 57
6.6	Interaction (bilateral trade)..... 57
6.7	Industry factors 58
6.8	Qualitative analysis..... 58
6.9	Implications for the Mozambique government 59
6.10	Implications for firms entering Mozambique 60
6.11	Limitations 60
6.12	Future research 61
6.13	Conclusions 62

	Page
REFERENCES.....	63
APPENDIX A: HYPOTHESIS STATEMENTS.....	68
APPENDIX B: QUESTIONNAIRE DESIGN AND CONSISTENCY MATRIX.....	70
APPENDIX C: QUESTIONNAIRE AND COVERING LETTER.....	74
APPENDIX D: INTERNATIONAL MONETARY FUND RATINGS.....	78

LIST OF TABLES

Table 1: Impact of macro-level factors on choice of entry mode	26
Table 2: Summary of consistency matrix	33
Table 3: Tests of significance.....	34
Table 4: South African Hofstede dimensions	42
Table 5: Industry factors.....	43
Table 6: Location factors.....	44
Table 7: Host country risk factors.....	45
Table 8: Interaction	46
Table 9: Industry factors.....	47
Table 10: Summary of hypothesis testing	47
Table 11: Logistic regression	48
Table 12: Correlation matrix.....	50
Table 13: List of variables	51

LIST OF FIGURES

Figure 1:	Mozambique 2004 GDP composition by sector	7
Figure 2:	Foreign direct investment approved by the CPI	9
Figure 3:	The 2005 foreign direct investment by sector (CPI approved)	10
Figure 4:	The 2005 foreign direct investment by province (CPI approved).....	11
Figure 5:	Map of Mozambique.....	12
Figure 6:	Breakdown of foreign direct investment by country	13
Figure 7:	Evolution of the entry mode decision.....	17
Figure 8:	Entry choice factors.....	18
Figure 9:	A hierarchical model of the mode of entry decision.....	25
Figure 10:	Industry type.....	38
Figure 11:	Entry mode.....	39
Figure 12:	Dates of market entries	39
Figure 13:	Location of entry.....	40
Figure 14:	Mozambique country risk (credit) rating	41
Figure 15:	Perceived stability of the Mozambique environment	42
Figure 16:	South Africa-Mozambique bilateral trade	43
Figure 17:	Criteria considered in market entry decision	52
Figure 18:	Entry criteria unique to Mozambique.....	53
Figure 19:	Market entry approach	54

DEFINITIONS AND ABBREVIATIONS

Definitions

16 vectors of global venture creation: A term coined by Coetzee (2005) to describe the 16 dynamic forces present in key global venture creation models, which together form a basis for a strategic conversation on global business development.

Alternate hypothesis (HA) is the “logical opposite of the null hypothesis” (Cooper & Schindler, 2003: 523).

Developing country is a country with a “relatively low standard of living, undeveloped industrial base, and moderate to low human development index (HDI). Development entails a modern infrastructure (both physical and institutional), and a move away from low value added sectors such as agriculture and natural resource extraction”

(Wikipedia, no date).

Entry mode: Definition 1: The entry mode is the method that will be used in “serving foreign markets” (Hill, 2003: 474) e.g. exporting and setting up a wholly owned subsidiary.

Definition 2: Entry mode is an institutional arrangement chosen by a firm to operate in a foreign market (Kumar & Subramaniam, 1997).

Foreign direct investment (FDI) occurs when “a firm invests resources in business activities outside its home country” (Hill, 2003: 8).

Home country refers to the “source country for foreign direct investment” (Hill, 2003: 685).

Null hypothesis (H0) is a “statement that no difference exists between the parameter (a measure taken by a census of the population) and the statistic being compared to it (a measure from a recently drawn sample of the population)” (Cooper & Schindler, 2003: 523).

Abbreviations

CPI	Centre for Promotion of Investment
EJV	equity joint venture
FDI	foreign direct investment
GDP	gross domestic product
H0	null hypothesis
HA	alternate hypothesis
IMF	International Monetary Fund
JV	joint venture
OLI	ownership, location and internalisation
US	United States of America
WOS	wholly owned subsidiary

1. ORIENTATION

1.1 Audience

The main beneficiaries of this research will include manufacturing firms investing in Mozambique, African governments wishing to attract foreign direct investment (FDI), African investment forums and academics.

Manufacturing firms will be able to benchmark their decision-making regarding entry strategy against firms facing similar challenges.

The results will also be of interest to governments and investment forums (e.g., the Centre for Promotion of Investment in Mozambique) wishing to attract a particular mode of FDI; as they would be aware of the factors influencing choice of entry mode.

Scholars in the field of international business will be interested in the applicability of international theory to Africa.

1.2 Origin, background and contextual setting

Mozambique gained independence from Portugal in 1975, but the subsequent 17 years of civil war left the country devastated and debt-ridden. During this period, significant skills drainage occurred due to the exodus of Portuguese nationals, nationalisation of companies and economic mismanagement. More than 1.7 million Mozambican refugees sought asylum in surrounding southern African countries. The civil war ended in 1992 with the Rome General Peace Accords.

Mozambique embarked on a massive economic and political reform programme, moving to a multiparty democracy with a market economy. The first democratic elections were held in 1994. Political stability, privatisation, low inflation and a pragmatic foreign policy have led to economic growth (US Department of State, Bureau of African Affairs, 2006). Success has been aided by external assistance from “bilateral and multilateral donors” (United Nations, International Chamber of Commerce, 2001). During the period 1994-2004, the average annual growth rate

was 8.2%; with per capita GDP increasing from the 1980's level of US\$120 to the 2004 level of US\$276 (US Department of State, Bureau of African Affairs, 2006).

Its good track record for economic reform allowed Mozambique to become the first African country to receive debt relief under the Heavily Indebted Poor Countries initiative. Another noteworthy achievement is that the Multilateral Investment Guarantee Agency of the World Bank Group has issued guarantees for seven projects in Mozambique, totalling \$190 million, and ranking Mozambique ninth in terms of outstanding coverage (World Bank, 2006).

The population of 17 million (in 2000) represents a small local market, but close proximity to other southern African countries provides export opportunities because, through the Southern African Development Community, Mozambique has access to 150 million people (United Nations, International Chamber of Commerce, 2001).

Mozambique has provided South Africa's Gauteng province with an outlet for goods, as the Maputo harbour is Gauteng's closest port. With development on the Maputo corridor, this provides economic growth opportunities for Mozambique. Since 1994, major South African investment in the Mozambique economy has included:

- SA Breweries – US\$25m in 1995;
- Standard Bank – US\$6m in 1995;
- Anglo American – US\$13m in 1996;
- Shoprite Checkers – US\$3m in 1997;
- Industrial Development Corporation and others – US\$1.34b in 1997;
- Illovo Sugar – US\$52m in 1997;
- Basil Read, Stocks and Stocks and other construction companies in the Maputo Development Corridor – US\$1b in 1998;
- Eskom – US\$120m in 1998;
- Southern Sun Hotels – US\$13m in 2000; and
- The IDC and others – US\$860m in 2001 (MBendi, 2006).

Mozambique's considerable mineral resources have had limited development. However, the country's oil and gas industry shows potential, and the natural gas investment by the South African petrochemical company, Sasol, is the first step in this development.

Developing countries such as Mozambique have had relatively low access to private capital but FDI such as those listed above can provide both capital and technology. For this reason, business forums play an important role in economic reform and trade stimulation. One business forum, the New Partnership for Africa's Development, is investigating sustainable development and international competitiveness, of which FDI is a powerful stimulus.

As competition in domestic markets increases, firms look to foreign markets for a new customer base, ways to improve their cost base, etc. Globalisation is also increasing, due to economic cooperation between countries and a reduction in trade barriers. Thus, foreign markets are becoming more accessible to investors.

This has led to the development of an international business theory on market entry modes for investors. However, traditional international business theory has not had an African focus. This report focuses on the hierarchical model of market entry modes, developed by Pan & Tse (2000), as a tool for decision-making by South African manufacturing firms entering Mozambique and will hence go some way towards providing an African perspective on market entry.

1.3 Research question

To what extent is the hierarchical model of market entry modes by Pan and Tse (2000) relevant to South African manufacturing firms entering Mozambique?

1.4 Research objectives

The primary research objective is to determine whether the hierarchical model can explain the entry mode choice of South African manufacturing firms entering Mozambique.

Sub-problem 1: To verify the explanatory abilities of the hierarchical model of market entry modes regarding market entry mode employed by South African manufacturing firms entering Mozambique.

Sub-problem 2: To understand the evaluation criteria used by South African manufacturing firms to select entry mode into Mozambique.

Sub-problem 3: To establish whether there are any evaluation criteria specific to Mozambique.

Sub-problem 4: To establish the predominant entry mode of South African manufacturing firms entering Mozambique.

1.5 Delimitations of the study

This research report covers only medium to large South African manufacturing firms.

The period of entry into Mozambique is limited to 1990 – 2005.

Entry mode models were limited to the hierarchical model of entry modes developed by Pan and Tse (2000).

1.6 Importance of the study

Because of the impact of these decisions on the value of the investing firm, it is important to understand the factors affecting the firm's decision to enter into foreign markets. The decision to internationalise is strongly linked to the corporate strategy of the firm and can have significant long-term effects, so the firm needs to understand the dynamics of entry strategy in the market it wishes to enter.

Although each country is unique, a study of Mozambique provides an African perspective. The stakeholders associated with this study were firms entering Mozambique, the government of Mozambique (and other African countries), and academics.

Current literature has predominantly been based on business in the West and the Far East. The applicability to the African context of the hierarchical model of market entry modes developed by Pan and Tse (2000) has not been established because the available research was conducted on entry into China. The research in this report allows African manufacturing firms to benchmark their entry strategy against those of firms facing similar challenges.

Forums with the aim of increasing FDI will also be provided with additional insight into the dynamics of entry into Mozambique.

1.7 Key assumptions

Market forces determine the entry mode. The host government does not dictate the choice of entry mode.

The applicability of the hierarchical model of market entry modes can be established by repeating the research conducted by Pan and Tse (2000) in another country and comparing the results obtained.

1.8 Chapter outlines

Chapter 1: Orientation. The first chapter provides an overview of what the research entails. The context is set, along with a delineation of the study. The broad objectives, purpose and importance of the study are stated, as are the research question, research problem and sub-problems.

Chapter 2: Literature review. The second chapter gives an overview of the literature (body of knowledge) applicable to the research problem. Previous studies, shortcomings and what has already been covered are discussed in order to show how this research will contribute to knowledge.

Chapter 3: Theoretical foundation. The third chapter critically reviews the traditional theories about the entry mode decision and international business. The theory lays the foundation for the statement of the problem and the hypotheses.

Chapter 4: Research methodology. The fourth chapter describes the research process, the sample frame, data sampling and collection methods and choice of measuring instruments, and the analytical (statistical) techniques used to test each hypothesis.

Chapter 5: Research results. Chapter 5 presents the processing and results of the data collection phase, and the results of testing the hypotheses.

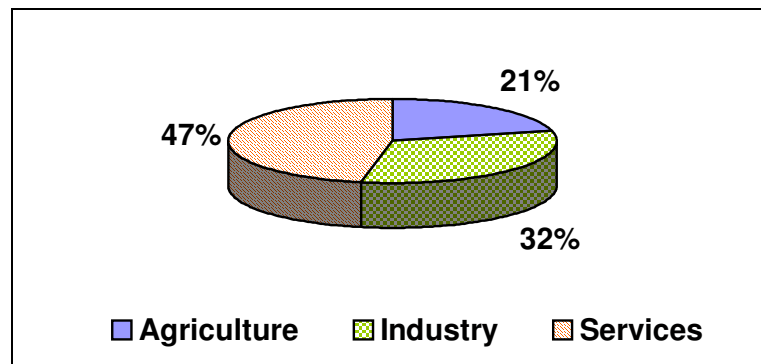
Chapter 6: Discussion, conclusions and recommendations. In the final chapter, the results are interpreted; the limitations of the research described, and the avenues for further investigation are recommended.

2. LITERATURE REVIEW

2.1 Review of the Mozambique manufacturing industry

Mozambique is a developing country with an economy still very dependent on agriculture, and agricultural activities constitute more than two-fifths of the GDP, and the bulk of merchandise exports. The manufacturing sector is small, accounting (together with the mining sector) for approximately 19% of GDP, and the major manufacturing branches include food processing, tobacco, beverages, textiles and footwear (World Trade Organisation, 2001).

Figure 1: Mozambique 2004 GDP composition by sector



Source: Coutsoukis, 2006

Agriculture – products: Cotton, cashew nuts, sugar cane, tea, cassava (tapioca), corn, coconuts, sisal, citrus and tropical fruits, potatoes, sunflowers, beef, poultry.

Industries: Food, beverages, chemicals (fertiliser, soap, paints), aluminium, petroleum products, textiles, cement, glass, asbestos, and tobacco.

Services: Financial services, telecommunications, health care, media, entertainment.

Mozambique's main trading partners are South Africa, the European Union, Japan and Zimbabwe. Major imported products include transportation equipment, machinery, mineral products and foodstuffs.

The economic reform programme instituted by the Mozambique government included a strong privatisation programme, along with efforts to attract foreign investment, and the manufacturing sector is strengthening.

“The low cost electricity, combined with highly competitive wage ranges should act as a major catalyst for industrialization. To support this process generous investment incentives exist and the Government has introduced legislation allowing the establishment of free zones for exports oriented investments” (World Trade Organisation, 2001).

The Mozambique government has identified the following priority sectors for development (World Trade Organisation, 2001):

- **Food processing and agri-industries** (high priority – salt, sugar, copra (dried coconut flesh), processed fish, processed fruits and cashew nuts; lower priority – milling, sisal, tea, bakery products, pasta, processed meat, tobacco, animal feed, dairy products and liqueurs);
- **Textile and clothing industries** (which do not face any quota restrictions);
- **Soaps and oils;**
- **Chemical industry;**
- **Metallurgy** (downstream of the BHP Billiton Aluminium Smelter, and other products);
- **Metalworking industry** (construction materials, heavy equipment, furniture, structures, tools and parts);
- **Packaging industry** (wooden boxes, glass bottles, corrugated board, flexible packaging).

Bureaucracy and a complex regulatory system have been cited as impediments to Mozambique’s economic reform. Factors such as restrictive land procedures (land is owned by the government, which then extends 50-year leases), complex labour laws, ineffective law enforcement and under-skilled labour have contributed to this perception. The *Doing Business in 2006* report by the World Bank (which covers

2005) identifies Mozambique as “one of the most difficult countries to start a business” (cited in US Embassy Maputo, Mozambique, 2006).

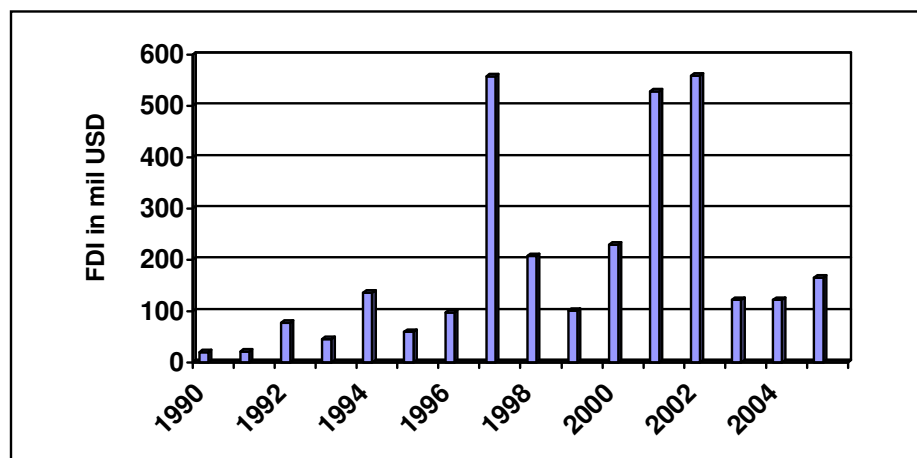
Specific to the manufacturing sector, lower import tariffs on intermediate and capital goods have been implemented to assist in overcoming the challenges of outdated facilities, poor infrastructure, etc. (*African growth and opportunity*, 2005).

Despite the economic reform, Mozambique remains one of the poorest nations in the world and is ranked 171 out of 177 countries in the United Nations 2004 Human Development Index (Manndorff, 2004). Mozambique’s Poverty Reduction Strategy Paper, initiated in 2000, has the main objectives of reducing the incidence of absolute poverty from 69% in 1997 to less than 60% by 2005, and to less than 50% by 2010. Broad-based economic growth is seen as the means of achieving these objectives (Manndorff, 2004).

2.2 Review of industry publications

In 1997, the Centre for Promotion of Investment (CPI) became the primary agent to facilitate investment in Mozambique. The following chart displays foreign direct investment approved by the CPI in Mozambique over the last 15 years. Peak investment years were 1997, 2001 and 2002.

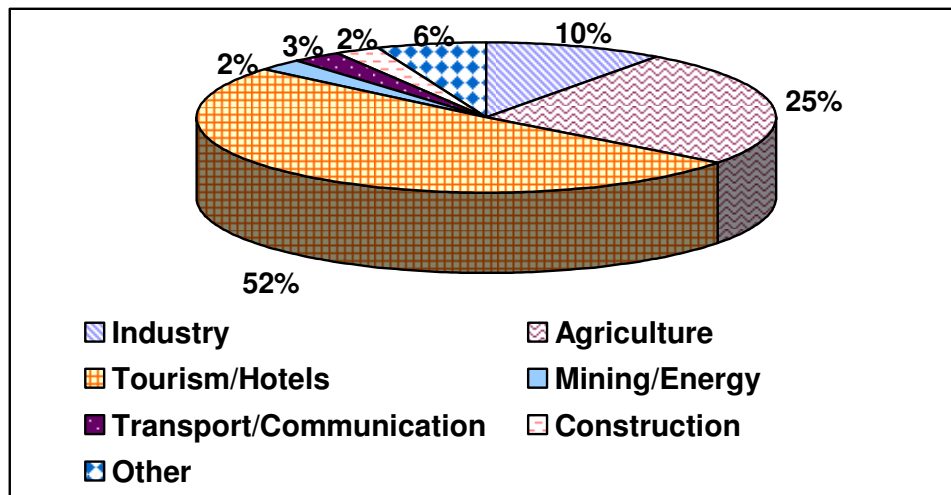
Figure 2: Foreign direct investment approved by the CPI



Source: US Embassy Maputo, Mozambique, 2006

In 2005, the CPI approved a total of 139 projects with a FDI value of US\$165 million. Tourism accounted for just over half the investment, while industry and mining combined accounted for only 12%. The breakdown of investment by industry sector is shown in Figure 3 below.

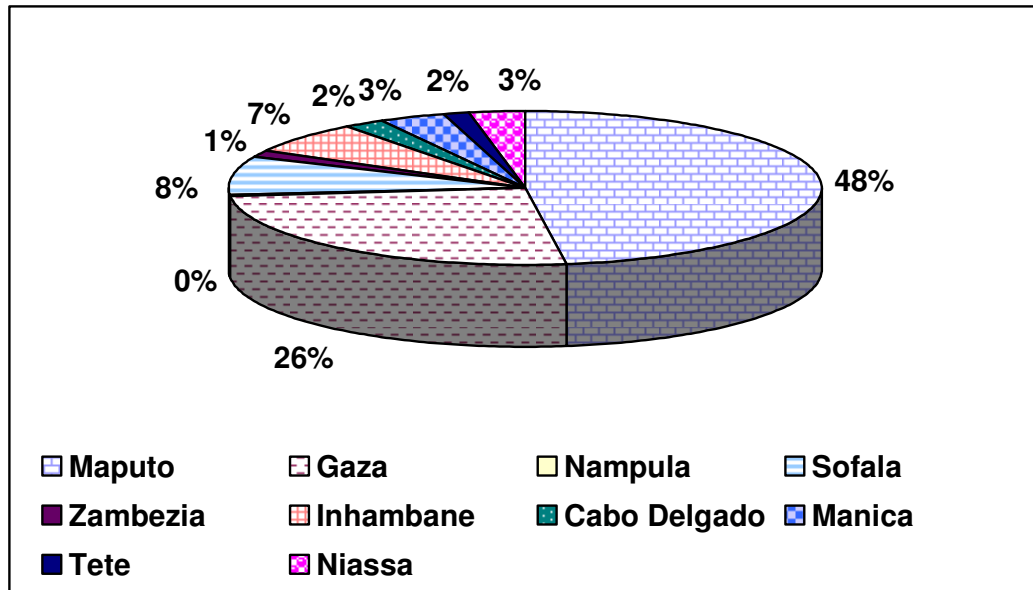
Figure 3: The 2005 foreign direct investment by sector (CPI approved)



Source: US Embassy Maputo, Mozambique, 2006

The following chart shows 2005 CPI-approved foreign direct investment by province.

Figure 4: The 2005 foreign direct investment by province (CPI approved)



Source: US Embassy Maputo, Mozambique, 2006

The location of investment in Mozambique is not evenly distributed, with Maputo receiving half of all investment. The provinces mentioned in Figure 4 have been marked with stars on the map of Mozambique (Figure 5). Investments in the Rapid Development Zones: Niassa Province, Nacala District, Ilha de Mozambique, Ibo Island, and the Zambezi River valley, are exempt from import duties on certain goods, and from real property transfer tax and are granted an investment tax credit equal to 20% of the total investment (with a right to carry forward for five years).

Mozambique’s economic recovery has been primarily funded through foreign savings (Manndorff, 2004). During the period 1990-2003, 100% of public investment was financed through external capital. The inflow of foreign investment brought with it valuable technology, expertise and training but, unfortunately, no vertical linkage to the rest of the economy and low job creation (Manndorff, 2004).

There are concerns regarding “the risk of greater donor coordination leading to a worsening of the already unequal bargaining power between government and donors” (Manndorff, 2004: 6). A further concern is HIV/AIDS, one of the greatest

threats to the development of the country. Life expectancy fell from 47.1 years in 1997 to 37.9 years in 2004.

Figure 5: Map of Mozambique



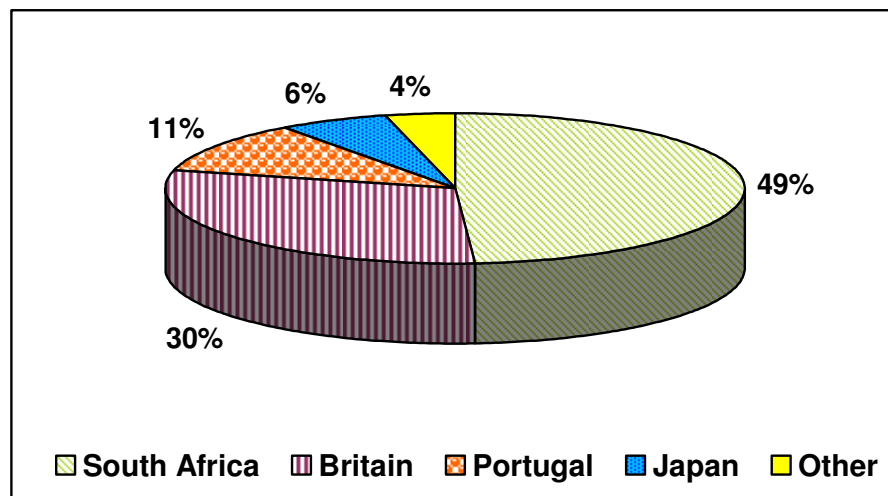
Source: United Nations, International Chamber of Commerce, 2001

The legal framework for both domestic and foreign direct investment in Mozambique is described by investment law no. 3/93 of 24 June 1993 (United Nations, International Chamber of Commerce, 2001).

The main barriers to entry have been described as: "corruption, administrative barriers, low labour productivity, the inefficiency of public administration, a weak legal and judiciary system, inadequate infrastructure, lack of finance, the small size of the market, smuggling, theft and poor repayment of VAT" (Manndorff, 2004: 11).

South Africa is the largest investor in Mozambique, providing 49% of the total FDI. Figure 6 below shows the investment breakdown by investing nation.

Figure 6: Breakdown of foreign direct investment by country



Source: Manndorff, 2005

2.3 Review of entry modes

Entry mode is an institutional arrangement chosen by a firm for operation in a foreign market (Kumar & Subramaniam, 1997). The choice of entry mode is a critical strategic decision, affecting future decisions and operations (Kumar & Subramaniam, 1997) because, when entering a foreign market, the choice of entry mode is recognised to be a trade-off between risk and return.

It is postulated that there are two categories of risk: external (e.g., country risk) and internal (e.g., international experience). Kwon and Konopa (1993) suggested that the level of risk can be moderated by the type of control implemented. Control can be described as the level of authority over operational and strategic decisions within the foreign subsidiary (Hill, Hwang & Kim, 1990).

The most commonly employed entry modes include exporting, turnkey projects, licensing, franchising, joint ventures and wholly owned subsidiaries. These modes differ in the level of commitment and associated costs and risks.

2.3.1 Exporting

Exporting is a common first entry mode used by manufacturing firms to enter a foreign market. It entails physical transfer of merchandise to a foreign market (with or without the aid of an agent) for financial gain. Advantages include avoidance of the costs of establishing a manufacturing operation, and the fact that exporting allows a manufacturing firm to capitalise on its experiential curve and on location economies, including economies of scale (Hill, 2003).

Exporting does however have shortcomings: Where there are lower-cost locations, exporting from a home base may be disadvantageous; high transportation costs may be incurred, which would be exacerbated in cases of low value-to-weight products; tariff and quota barriers may make exporting unviable; and, when delegating marketing to a local agent (with no loyalty to the exporting firm), the manufacturer may not receive the standard of marketing that could be achieved by the firm itself (Hill, 2003).

2.3.2 Turnkey projects

In a turnkey project, a contractor handles all the details of a project and hands over a facility that is ready for operation. Such projects are common in petrochemical, pharmaceutical and refining industries (Hill, 2003: 482).

The advantages of turnkey projects include gaining economic benefit from transfer of know-how, especially where FDI is restricted by the host government. Turnkey projects are also a less risky form of FDI.

Disadvantages are that the contractor has no long-term interest in the operation; and a turnkey project may become a competitor to the originating firm. Where technology is the source of competitive advantage, sale of the technology implies loss of this advantage.

2.3.3 Licensing

In a licensing agreement, a “licensor grants the rights to intangible property to another entity (the licensee) for a specific period” in return for a royalty fee (Hill, 2003: 482). As the licensee provides the capital for the operation, the licensor has reduced risk. In countries where there are barriers to investment, licensing allows a foreign firm to exploit its know-how (intangible property) for financial gain.

Drawbacks to licensing include the fact that the firm (licensor) does not have tight control over the operation; should the firm require strategic coordination across operations, this will be limited as the licensee has to maximise its profit; and there is a risk of losing competitive advantage by licensing know-how.

2.3.4 Franchising

Franchising is a stricter form of licensing, where the franchisee has to abide by rules on how to conduct business as set out by the franchisor. As with licensing, the franchisor does not incur the cost of establishing a new operation. However, a disadvantage is quality control, in that a poor experience in one franchise may affect the public’s perception of the entire brand.

2.3.5 Joint ventures

A joint venture is a firm owned jointly by two or more independent firms (Hill, 2003). In a joint venture, assets (tangible or intangible) are pooled; the firms then share ownership and control of the new pool (Kumar & Subramaniam, 1997). Advantages in a foreign market include: the foreign partner can benefit from the local partner’s

knowledge of the business environment; and development costs and risks are shared. In some countries, political conditions make a joint venture operation the only feasible mode of entry.

A joint venture has the risk of losing control of know-how to a partner; a firm may not have tight control over the subsidiary or may not benefit from strategic coordination; and the partner firms may have different strategic goals and objectives.

2.3.6 Wholly owned subsidiaries

A wholly owned subsidiary is 100 percent owned by the parent firm. Subsidiaries may be acquired or new operations (greenfield ventures) may be established. The firm has the advantage of control over operations and use of know-how; strategic coordination is also possible. A drawback of wholly owned subsidiaries is the cost of establishment.

2.4 Strategic foundation

The strategic foundation for this study is best summarised by the “16 vectors in global venture creation” (Coetzee, 2005) and The hierarchical model of market entry modes (Pan & Tse, 2000). Other contributing works include the Contingency Framework (Kumar & Subramaniam, 1997), which was the precursor to the hierarchical model of market entry modes.

2.5 Review of entry mode selection theories

Most past studies on foreign market entry selection are characterised by three approaches: the gradual incremental/stages approach, the transaction cost approach or the eclectic framework approach.

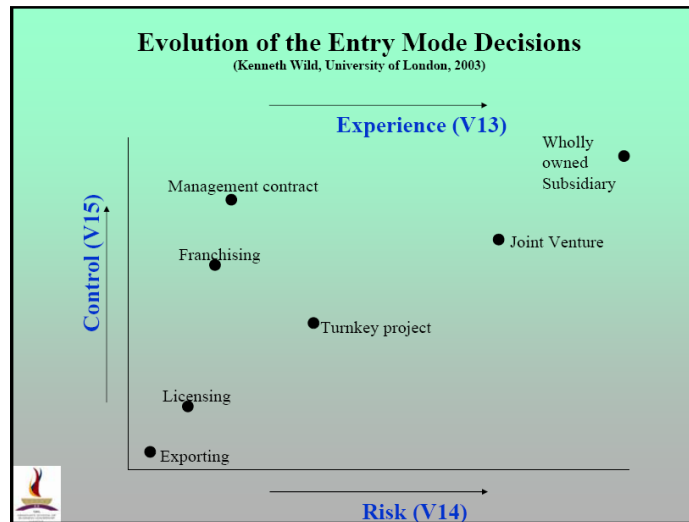
2.5.1 The internalisation/stages approach

The stages approach proposes that firms internationalise firstly by a low resource commitment mode, such as exporting. Resource commitment refers to the “dedicated assets that cannot be redeployed to alternative uses without cost” (Hill et

al, 1990: 118). As the firm acquires more international experience, higher commitment (including higher risk and control) modes can then be considered.

The concept of gradual or incremental involvement is captured in graphical form using the three dimensions of control, risk and experience (or time) in Figure 7.

Figure 7: Evolution of the entry mode decision



Source: Wild, Wild & Han (2003)

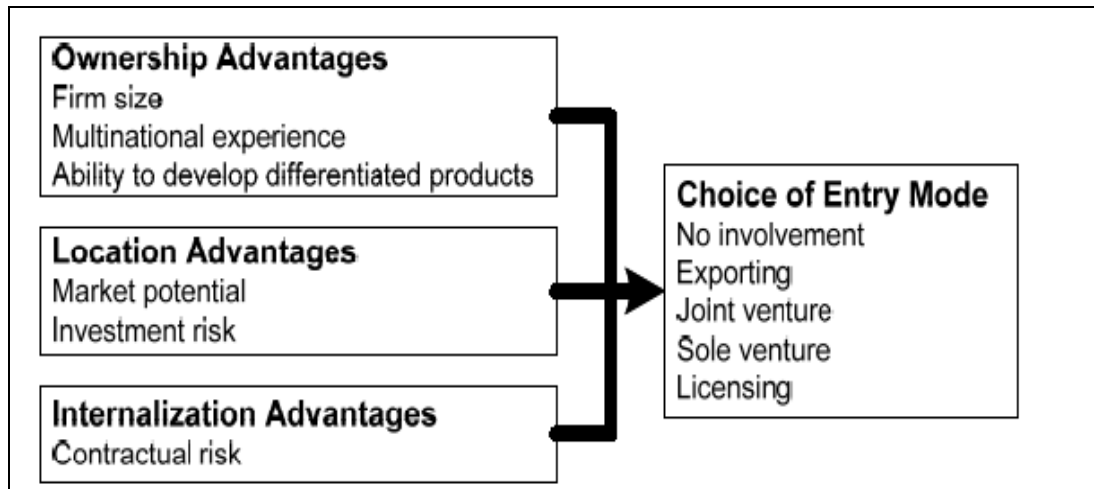
2.5.2 Transaction cost approach

The transaction cost approach asserts that firms will minimise the costs associated with operations by internalising those activities that they can perform at a lower cost, but subcontracting those activities externally if other providers have a cost advantage (Pan & Tse, 2000).

2.5.3 Eclectic framework approach

Another school of thought is that international interaction between firms is built on a framework of ownership, location and internalisation (OLI) advantages. This so-called eclectic framework approach was developed by Dunning (2001) and proposes that foreign market activities are influenced by three types of factor: ownership-specific factors, location-specific factors, and internalisation-specific factors (see Figure 8).

Figure 8: Entry choice factors



Source: Chen (2005:40)

2.5.4 Summary of approaches

The **stages approach** is based mainly on the differing business risks associated with each method of market entry.

The **transaction cost approach** compares the cost of doing various business activities internally versus externally and does not fully incorporate other deciding factors. Transaction cost analysis can be considered to be merely a micro-level analysis that looks, for example, at asset specificity; the transaction cost approach is therefore considered to be static and equilibrium oriented, and does not completely explain many of the market entry behaviours of firms (Madhok, 1997).

Dunning (2001) proposed the **eclectic OLI approach**, which has a broader focus than transaction cost analysis, and looks at a framework of owner advantages and location factors, as well as whether to internalise activities. Dunning clearly emphasised the significance of including location factors but there have been arguments that ownership and internalisation factors have similarities to the transaction cost approach (Tse, Pan & Au, 1997).

Hill et al (1990) also proposed an eclectic framework. Their framework identifies strategic, environmental and transactional variables as determinants of foreign

market entry mode choice. Strategic variables explain differences in entry mode choice when firms are considered to have similar assets and capabilities; environmental variables determine the level of resource commitment; and transaction-specific variables determine the level of risk and control of each entry mode.

When strategic factors are brought into the study of foreign market entry mode, firms examine, for example, the specific yet generalisable aspects of competitive advantage (Brown et al, 2003). Kim and Hwang (1992) included the strategic variables of global concentration, global synergies and global strategic motivations in the eclectic framework (Hill et al, 1990).

The **hierarchical model of market entry modes** encompasses elements of all the previous theories and looks at the entry mode decision as a hierarchical series of decisions. Different factors play a role at each decision level, thus covering all major entry mode decision criteria.

Even though the ownership dimension and the control dimension of foreign market entry mode choice are strongly correlated, the key insight of the hierarchy model is that these dimensions can be separated (Brown, Dev & Zhou, 2003).

3. THEORETICAL FOUNDATION

This research grew out of the three main theories about how to choose modes of entry into foreign markets:

- internalisation/stages theory;
- transaction cost theory;
- eclectic paradigm.

3.1 Internalisation/stages theory

This theory is held by a school of thought that believes in gradual involvement in the host country in response to perceived risk (political, market, culture). According to the internalisation/stages theory, a firm begins to internationalise its operations by pursuing the following time-dependent and incremental stages of development:

- no regular export,
- export through agents,
- sales subsidiary, and
- overseas production.

Thus, increased market knowledge leads to increased market commitment (Malhotra, Agarwal & Ulgado, 2003). This means that a firm is expected to enter a market under low resource commitment and, as the firm acquires more knowledge and experience, it will commit higher levels of resources. Entry mode is seen as a continuum of increasing levels of resource commitment, risk exposure, control and profit potential (Chu & Anderson, 1992; Chen, 2005).

The stages model has been criticised for being a time-dependent and deterministic evolutionary path. It also does not make provision for cooperative entry modes (e.g., contractual agreements) and strategic factors (Andersen 1997).

3.2 Transaction cost theory

Transaction cost theory has been widely used in entry mode research to explain why large companies use different modes at different times in expanding abroad (Brouthers & Brouthers, 2003), because the organisational structure they adopt when expanding abroad is based on how efficient one structure is compared with the alternative structure (Brouthers & Nakos, 2004).

Transaction cost theory proposes that asset specificity, behavioural uncertainties, and environmental uncertainties create two main costs: **market transaction costs** and **control costs** (Brouthers & Nakos, 2004). Firms select an entry mode that minimises these transaction costs. Each sub-element of the transaction cost theory is explained below:

Asset specificity refers to the physical and human resources, which may lose value in another use, that a company utilises to complete a specific task. Where asset specificity is the basis for competitive advantage, the investing firm may internalise the foreign operations to gain greater control over the use of the know-how in its hierarchy. This has to be balanced with the costs of controlling a hierarchical structure. Only when the organisational control costs are lower than the market transaction costs will it be more efficient for a company to organise itself as a hierarchy (Brouthers & Nakos, 2004).

Low-specificity (knowledge or technology) investments incur lower switching costs. “Switching costs” are created when an investing firm needs to change agents or modes of entry in a foreign market, and may include the costs of finding, negotiating with, and training a new agent, plus the costs of lost sales (Erramilli & Rao, 1993).

Behavioural uncertainties stem from the inability of a company to predict the behaviour of individuals in the foreign market. Transaction cost theory suggests that behavioural uncertainty may lead to opportunistic behaviour involving cheating, distortion of information, and other forms of dishonest behaviour. To overcome this, the investing firm has to establish control mechanisms. Internal control can be achieved through hierarchical ownership that gives the firm a legal right to control the actions of foreign-based employees (Brouthers & Nakos, 2004).

Several entry mode studies suggest that, with experience, firms develop systems for controlling foreign-based operations. These studies conclude that firms with greater international experience have developed stronger internal control mechanisms (Brouthers & Nakos, 2004).

Environmental uncertainties refer to the risks associated with a foreign market, for example, the ability to enforce legal contracts. If a company requires increased control, it has to assign adequate resources. However, by committing additional resources, a firm increases its exposure to external environmental risks (Anderson & Gatignon, 1986). Following a low-resource commitment strategy in an uncertain market allows a company to retain flexibility.

The transaction cost approach has been commonly applied in the last decade but previous studies have used firms, not entry modes, as units of analysis. There is a concern that transaction costs cannot be accurately measured and this approach has also been criticised for neglecting the firm's internal characteristics, which are considered to be fundamental to strategic behaviour such as market entry mode decisions (Bartlett & Ghoshal, 1991).

The transaction cost approach has a static orientation and previously did not consider non-transaction cost benefits (e.g., global integration). More recently, research has focussed on "non-transaction cost benefits that flow from increased control, such as coordination of strategies and extension of market power" (Malhotra et al, 2003: 6).

3.3 Eclectic paradigm

The eclectic paradigm is a "multi-theoretical approach that encompasses the resource advantage theory (ownership advantage), international trade theory (location advantage) and transaction cost theory (internalisation advantage)." (Malhotra et al, 2003: 6). Dunning (2001: 176) argued that the "eclectic paradigm is best regarded as a framework for analysing the determinants of international production rather than as a predictive theory".

Dunning (2001) proposed that previous theories were incomplete and could not explain the choice of FDI over export or the choice of where to locate FDI. According to the eclectic paradigm, the degree and pattern of international production may be explained by three sets of forces: owner-specific factors, location-specific factors and internalisation factors.

Dunning (2001) defined the owner-specific competitive advantages that firms of one nationality possess over those of another in supplying any particular market. These advantages may arise from the firm's ownership of, or access to, a set of income-generating assets. They may also have a superior ability to co-ordinate their assets with other assets across national boundaries in a way that differentiates them from their competitors.

Location-specific factors apply when firms select the markets they choose to service. Locations offering high market potential will be selected for value-adding activities outside of the firms' home country (Luo, 2001).

The effect of the internalisation factor on the firm's selection of market entry mode, according to the eclectic paradigm, will depend on the firm's perception of the value that may be added by internalising foreign markets for the generation and/or the use of the firms' assets (Dunning, 2001).

Buckley (1998) considered the inclusion of both internalisation and ownership advantages to be double counting so the eclectic paradigm could be criticised for its overlapping explanation of entry mode choice. However Dunning (2001) argued that location advantage is most likely to influence entry mode and international market selection.

When considering the literature, the entry mode choice may also be considered from a cybernetic view (where only a small set of critical variables are monitored and the final decision is made sequentially) and as a hierarchy, i.e., managers structure the decision into levels, with criteria for each level (Kumar & Subramaniam, 1997).

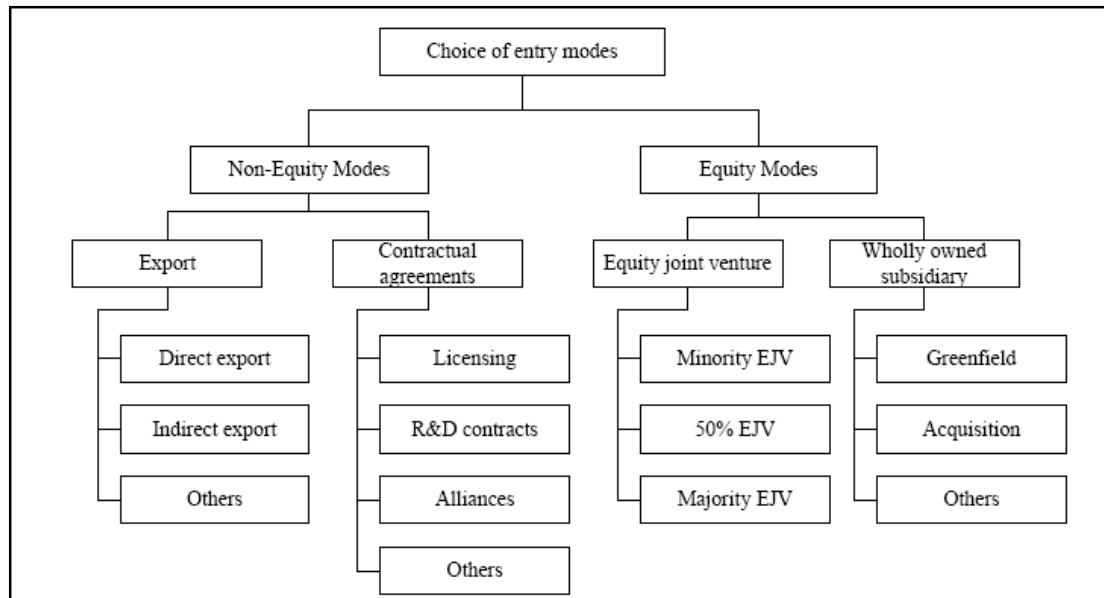
3.4 Hierarchical model of market entry modes

Pan and Tse (2000) developed a hierarchical model of entry mode selection, which proposes that managers structure the various entry modes into a multi-level hierarchy. These authors asserted that the choice of foreign market entry modes involves two steps: Firstly, firms decide whether to make an equity or non-equity investment in the foreign market. Secondly, within the equity or non-equity choice, firms select the specific entry mode (e.g., indirect exporting, licensing, franchising, joint venture, wholly owned subsidiary). Decisions are then made using evaluation criteria at each level of this hierarchy.

It is assumed that managers make rational, analytical decisions, i.e., that they consider all the modes of entry at the same point in time instead of a sequential process. They are also assumed to consider all the factors at the same point in time instead of some factors at different stages (Pan & Tse, 2000).

The first tier of the hierarchy (refer to Figure 9 below) is the choice between equity and non-equity entry modes, due to the difference in resource commitment involved in this decision.

Figure 9: A hierarchical model of the mode of entry decision



Source: Pan & Tse, 2000

To test the concept of the hierarchy, factors that influence the first level (choice between equity and non-equity) should not influence the subsequent levels.

This research report focusses on the hierarchical model of market entry modes, which has its foundation in traditional entry mode theory, and particularly on its applicability to the Mozambique context. An important goal of this report is to identify and test the role of a set of country and industry factors in the choice of entry mode.

3.5 Hypothesis development

The entry mode decision is unlikely to rest on a single variable, i.e., this is a multivariate decision. Entry mode decision criteria have been extensively researched and this research followed the methodology of Pan and Tse (2000).

“Pan and Tse (2000) found that when the dichotomous entry mode variable (equity versus non-equity) was used, many determinants impacting entry mode choice that otherwise failed to register as significant within more differentiated classification schemes were found to be significant predictors of entry mode choice. This suggests

that, at least for studies applying entry mode theory to new situations, the dichotomous mode choice may be more useful” (Brouthers & Nakos, 2004: 236).

The entry mode determinants (and their effect on the decision-making at each level of the hierarchy) that were studied by Pan and Tse (2000) are shown in Table 1 below. To test the concept of the hierarchy, factors that influence the first level (choice between equity and non-equity) should not influence the subsequent levels i.e., factors that have a high impact on the first level will only have a low impact at the second level.

Table 1: Impact of macro-level factors on choice of entry mode

Determinants	Equity vs non-equity	Within non-equity (export vs contractual)	Within equity modes (EJV vs WOS)
<i>Host country factors</i>			
Prioritised location	High	Low	Low
Host country risk	High	Low	Low
<i>Home country factors</i>			
Management orientation	High	Low	Low
Risk orientation	High	Low	Low
<i>Host and home country</i>			
Trade relationship	High	Low	Low
Political relationship	High	Low	Low
<i>Industry factors</i>			
Marketing management	High	Low	Low
Asset management	High	Low	Low

Source: Pan and Tse, 2000.

3.5.1 Prioritised location

Many host countries wishing to encourage investment have prioritised locations with various incentives. Foreign firms are therefore exposed to a lower risk and are more likely to invest in equity-based operations (Pan & Tse, 2000).

3.5.2 Host country risk

Country risk analysis focuses on the “contextual, uncontrollable issues driven by legal processes, government institutions and environmental elements that define the context of a transaction” (Calhoun, 2003: 5). Country risk is a multi-faceted construct and the choice of a particular risk measure may depend on the firms industry and risks it faces. Yet analysis by Calhoun (2003) revealed that the different ratings do not have different measures and are consequently not defining different risks. Therefore the choice of risk rating is not critical, as long as it is consistently applied.

International Monetary Fund ratings have been used in this study (see Appendix D).

3.5.3 Management orientation

Managers from different cultures differ in their approach to management decisions. Hofstede (2003) conducted a comprehensive study into the effect of national culture on values in the workplace. The dimensions evaluated included masculinity, individualism, long-term focus, uncertainty avoidance and power distance, which are scored from 0 to 100, i.e., from low to high. For example, a high uncertainty avoidance score indicates a lack of tolerance for uncertainty and ambiguity (Hofstede 2003).

Pan and Tse (2000) included uncertainty avoidance and power distance in their hierarchical model. They proposed that firms from a home country with high uncertainty avoidance minimise their exposure to uncertainty and hence risk. Such firms would therefore prefer non-equity entries such as contracts.

Pan and Tse (2000) used power distance as a measure of cultural distance between host and home countries. High power distance is indicative of high inter-personal inequality and the existence of a hierarchy whereas, in low power distance cultures, managers of different levels see themselves as relatively equal. The authors proposed that firms from a home country with high power distance prefer equity modes of entry (Pan & Tse, 2000).

3.5.4 Trade relationship

As firms trade in a foreign country, they gain more knowledge on the host country market. Thus, the greater the amounts of bilateral trade, the more likely firms are to invest in the host country (Pan & Tse, 2000).

3.5.5 Political relationship

Tse et al (1997) demonstrated that the longer there has been a diplomatic tie between host country and home country, the more likely firms are to invest in the host country. A long diplomatic history can lead to a better understanding between host and home countries, thus facilitating greater resource commitment such as equity investment.

3.5.6 Marketing management

Previous studies have shown that, in markets with a high advertising intensity, firms are more likely to internalise activities (Gatignon & Anderson, 1988). Pan and Tse (2000) expected firms to adopt equity entry modes when advertising intensity was high.

3.5.7 Asset management

Asset turnover is the extent to which firms generate sales from their asset base. In an industry where asset turnover is high, more sales are achieved with a given asset base and firms will be more likely to internalise their operations (Erramilli & Rao, 1993), thus choosing an equity mode of entry.

3.6 Hypothesis statements

In order to establish the applicability of the hierarchy model, the same hypotheses used in the original research by Pan and Tse (2000) were tested in this research:

H1: Location factors explain the choice between equity versus non-equity modes but not within each type.

H2: Host country risk factors explain the choice between equity and non-equity modes, but not within each type.

H3: Risk orientation explains the choice between equity and non-equity modes, but less well within each type.

H4: Power distance difference explains the choice between equity and non-equity modes, but less well within each type.

H5: The extent of interaction between host and home countries explains the choice between equity and non-equity modes, but less well within each type.

H6: Advertising intensity and asset turnover explain the choice between equity and non-equity modes, but less well within each type. (Pan & Tse, 2000)

(Refer to Appendix A for the hypothesis statements rephrased as the null and alternate hypotheses.)

Hypotheses 3 and 4 deal with a cultural-based management orientation and have been included for completeness as they form part of the hypotheses tested by Pan and Tse (2000). This study is however limited to South African firms, and the effect of differing cultures therefore cannot be tested.

4. RESEARCH METHODOLOGY

4.1 Contextualisation of this research

The research methodology employed in the study by Pan and Tse (2000) was to use archival, secondary data on China, developed from the *China Business Review* trade magazine. Whilst this provided a large population from which to sample, only China was considered and firm-specific data was difficult to construct.

This study made use of primary data on Mozambique (an emerging African country), collected via telephone interviews and structured questionnaires, as there was no existing business archive. This allowed for more open-ended questioning and the inclusion of management thinking.

The study by Pan and Tse (2000) made use of US industry factors to estimate the influence of industry-specific factors. However, to ensure that the data was relevant to Mozambique, as far as possible, primary data was collected for advertising expenses and asset intensity.

“It has been assumed in the literature that managers have unlimited time and monetary resources to gather the required information to make an optimal, rational decision. But there are many instances when managers are faced with constraints that prevent them from taking an elaborate information search necessary for arriving at an optimal decision (Wright, 1976). Past research on the mode of entry decision does not offer any insights into decision-making under such constrained situations.” (Kumar & Subramaniam, 1997: 55).

This study of the applicability of the hierarchy model of market entry modes assists in providing a framework and hence facilitates the study of entry modes under constrained situations.

4.2 Research design

This research was a descriptive study of the associations between different variables – in this case, entry mode and the appropriate evaluation criteria. The nature of the study is ex post facto, i.e., there was no control over the variables so the study can only report what actually happened.

The research was conducted as a cross-section of events that occurred between 1990 and 2005. This historic focus is necessary as strategy is closely guarded by companies and no data on future movements would be shared willingly.

The unit of analysis was the individual entry mode decision made by South African manufacturing firms entering the Mozambique market. This unit is consistent with previous research, such as that by Ekeledo and Sivakumar (2004) and Erramilli and Rao (1993), as well as with the research of Pan and Tse (2000) from which this research draws comparison.

4.3 Sample selection and data collection methodology

The target population for the study included all manufacturing firms that had entered Mozambique during the period 1990-2005.

A sampling frame for the target population was not available so each entry had to be matched to a particular executive who was privy to the decision. To overcome this requirement, respondents were asked to report on the foreign market entries of their choice. This method is consistent with previous research: Erramilli and Rao (1993) requested respondents to provide data on entry decisions with which the manager was very familiar.

Convenience sampling, which is a nonprobability sampling technique, was used for the survey because of the difficulties in securing an appropriate sampling frame, and hence a representative sample. It was anticipated that there would be a low response rate as the survey was aimed at executives in senior management so the target response was ten respondents. Convenience sampling allowed speed and economy in obtaining completed questionnaires.

Since only probability sampling gives estimates of precision, this research does not have external validity, i.e., the results cannot be generalised. Although this is a statistical study (as opposed to case research), the results can therefore not be used to characterise the sample population. This sampling constraint is a limitation of the study.

Data collection was conducted via email questionnaires (see Appendix C), with a follow-up telephone interview to confirm understanding and gain insight into the answers given to the open-ended questions. This survey method was chosen as the most economic method of obtaining information from a sample that is geographically widespread, and also because, on seeking possible respondents, it was noted that there was a distinct aversion to having a recorded interview. This would affect the validity of the data collected when conducting qualitative analysis; thus further supporting the use of an email questionnaire.

Respondents were asked to fill in the questionnaire with regard to a market entry that they were personally involved in. As per Ekeledo and Sivakumar (2004), this is appropriate where information regarding a decision is dependent on the manager's perception at that time.

Secondary data, obtained from the South African Revenue Service and other industry sources, was used to supplement the primary data obtained from the interviews and questionnaires.

4.4 Measuring instrument

The measuring instrument was designed to provide for both exploratory research and hypothesis testing.

4.4.1 Format

A structured, self-administered email questionnaire was used, followed by a telephonic discussion. An important factor in the design of the questionnaire was the phrasing of questions to promote a high degree of cooperation from the recipient. No insight into future movements was requested, thus possibly increasing the response

rate, since strategy is closely guarded by all companies. This research therefore used only historical data.

A covering letter informing the recipients of the objectives and importance of the research was sent out with the email questionnaire (refer to Appendix C for the survey and covering letter).

The survey used the 5-point Likert scale to measure the independent variables. The Likert scale does not provide an accurate measure of attitude towards a topic, but helps place different respondents relative to each other in terms of the intensity of their attitude towards an issue (Kumar, 2005). The Likert scale used in this research was expressed as categories, not numerical points, because it was believed that respondents would best express themselves in this form.

Due to the small sample available (industry and mining account for a small percentage of FDI in Mozambique, refer to section 2.1 for additional information), a pilot test could not be done using actual respondents. The survey was however reviewed by peers and the academic study leader from the Graduate School of Business Leadership, University of South Africa.

Table 2 shows the factors and their corresponding variables addressed in the questionnaire.

Table 2: Summary of consistency matrix

Variable	Hypothesis number	Operational measures	Source of measure	Data type
Entry mode choice	(Dependent variable)	Wholly owned subsidiaries, Equity joint ventures, Contractual agreements, Exports	Quantitative measurement instrument	Nominal
Location factors	1	Rest of Mozambique vs the Rapid Development Zones: Niassa Province, Nacala District, Ilha de Mozambique, Ibo Island and the Zambezi river valley	Quantitative measurement instrument	Nominal

Variable	Hypothesis number	Operational measures	Source of measure	Data type
Host country risk factors	2	Annual credit risk rating	Secondary data	Ordinal
Risk orientation	3	Uncertainty avoidance (Hofstede)	Secondary data	Ordinal
Power distance	4	Power distance (Hofstede)	Secondary data	Ordinal
The extent of interaction between host and home countries	5	Size of bilateral trade, length of diplomatic tie	Secondary Data	Ratio
Industry factors	6	Advertising intensity and asset turnover	Quantitative measurement instrument	Ratio

For the full consistency matrix, refer to Appendix B.

4.4.2 Quantitative analytical techniques

In order to test the hypotheses described in the literature review section and Appendix A, statistical analysis was required. As the variables were mainly nominal and ordinal in nature, and the small sample size limited the use of parametric tests for the ratio data non-parametric tests were used in this study. .

The tests of significance used for each variable are shown in Table 3.

Table 3: Tests of significance

Variable	Test of significance
Location factors	Chi-square test
Host country risk factors	Chi-square test
Risk orientation	Not tested
Power distance	Not tested
Interaction between host and home countries	Mann-Whitney
Industry factors	Mann-Whitney

Chi-square test: This is a non-parametric test of significance that is particularly useful in tests involving nominal data (but can be used for higher order data). It tests for significant differences between the observed distribution of data and the expected distribution. The greater the difference, the lower the probability that the differences can be attributed to chance (Cooper & Schindler, 2003).

Mann-Whitney: This is a non-parametric test of significance used where there are two independent samples and the data is at least ordinal (Cooper & Schindler, 2003). The chi-square test can also be used for two independent samples but, as the data is ordinal, this is not the most effective use of the available data. Therefore both the Chi-square and Mann-Whitney tests were used.

The survey provided data pertaining to the variables listed in Table 3. This data was collated in an Excel spreadsheet, in order to facilitate analysis.

Many of the previous studies into entry mode choice make use of logistic regression for data analysis (Agarwal & Ramaswami, 1992; Erramilli & Rao, 1993 or Kim & Hwang, 1992). A logistic regression model was therefore used in this study to determine the effect of each dependent variable (entry mode) on the independent variable (decision criteria).

4.4.3 Qualitative analytical techniques

The questionnaire contained both structured questions and open-ended questions. Open-ended questions were included in order to establish firm-specific and country-specific factors that are not tested in the hierarchical model of entry modes. These factors lend depth to the research and possibly provide a platform for further research, but were not used to test the applicability of the hierarchical model of market entry modes. Content (qualitative) analysis was employed to determine the most frequently mentioned themes in the open-ended questions.

Aspects covered were:

- Criteria firms considered when making the decision to enter Mozambique;
- Criteria firms considered unique to Mozambique;

- If the decision process was different to the hierarchical model of entry modes, what approach was used?

4.4.4 Validity and reliability

When considering questionnaire content, validity and reliability of the constructs and their measures is a key concern. To overcome the challenge of reliability and validity, the questionnaire for this research used existing constructs and adaptations of existing questions.

Validity. “In terms of measurement procedures, validity is the ability of an instrument to measure what it is designed to measure” (Kumar, 2005: 153). There are two approaches to establishing the validity of a research instrument: logic and statistical evidence. “Establishing a logical link between questions and the objectives is easier when the questions relate to tangible matters” (Kumar, 2005: 154).

To increase the validity of the survey used in this study, phrasing of questions was kept in line with the concepts of Pan and Tse (2000). Two of the questions, those regarding environmental instability and intellectual property protected, were taken almost verbatim from the questionnaire of Luo (2001).

Reliability. The reliability of a research instrument is the degree of accuracy in the measurements made. The greater the ability of the instrument to produce consistent results, the greater its reliability.

5. RESEARCH RESULTS

5.1 Introduction

This chapter presents the results of the research, including statistical analysis and interpretation.

5.2 Characteristics of the sample

5.2.1 Data source

The primary data obtained from the structured and open-ended questions in the email questionnaire was the main source of data for testing the hypotheses (described in the Theoretical foundation).

Secondary data included the investment risk ratings for Mozambique, sourced from the *Institutional Investor* (March of each year). The South African Revenue Service provided bilateral trade statistics between South Africa and Mozambique.

5.2.2 Data sampling

Convenience sampling was used, and approximately half of the respondents were referrals from within the researcher's personal network. The balance of the sample contained companies known to have entered the Mozambique market; approached through their respective public relations departments. Twenty South African companies who were known to have entered the Mozambique market were approached regarding the research project.

5.2.3 Questionnaire distribution

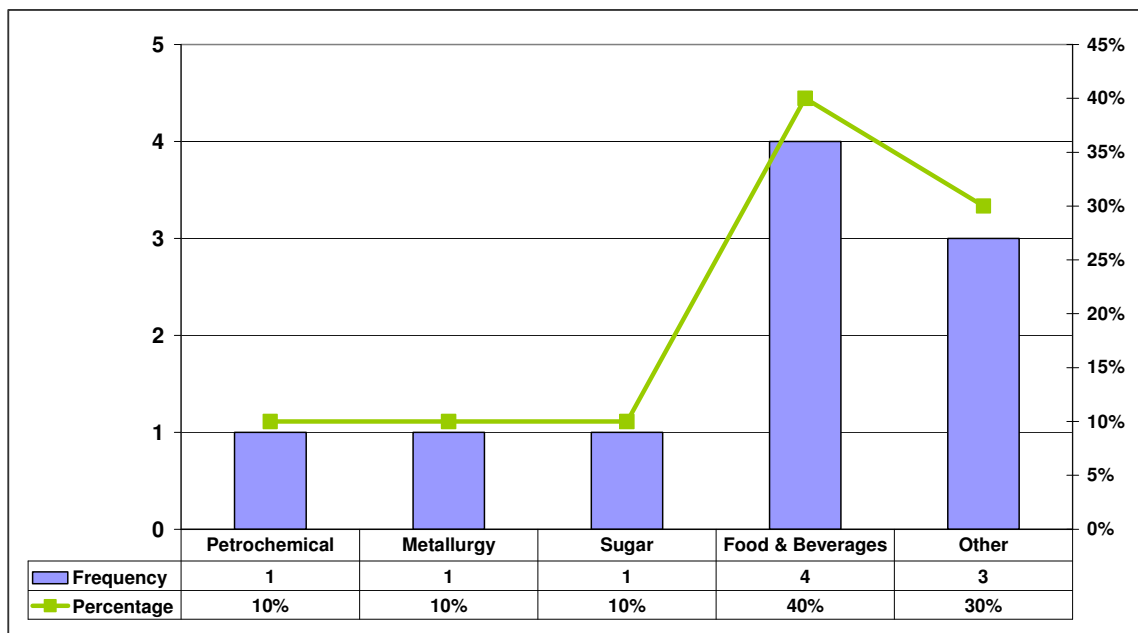
The questionnaire was distributed via email, with a follow-up telephone call to confirm understanding of the answers to the open-ended questions.

5.2.4 Response rate

Of the 20 South African companies approached, permission to forward the questionnaire was obtained from 15 of the companies, and 9 completed questionnaires were returned. One week after the due date, outstanding respondents were contacted via telephone, resulting in the submission of one additional completed questionnaire. The total of 10 questionnaires equates to a response rate of 67%. Due to confidentiality concerns, the list of companies participating in this study will not be included.

The distribution of the respondents by industry is shown in Figure 10 below.

Figure 10: Industry type

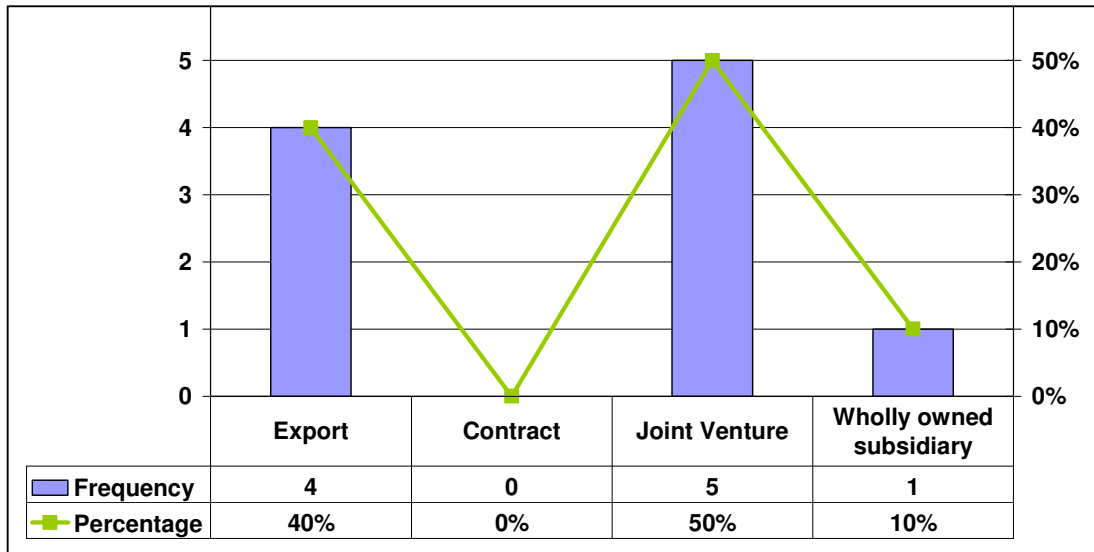


5.3 Measurement of the dependent variable

The dependent variable was the entry mode adopted by firms entering the Mozambique market. This is a dichotomous variable, i.e., there are equity and non-equity modes. As per the study by Pan and Tse (2000), equity modes are further divided into joint venture and wholly owned subsidiaries. Non-equity modes are divided into exports and contracts.

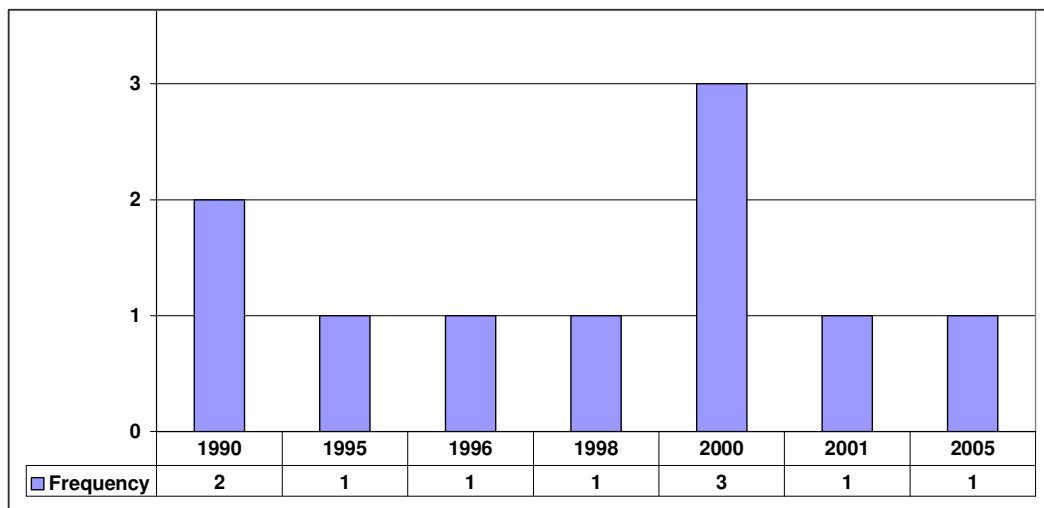
The data source for the dependent variable was the questionnaire. Figure 11 below shows the spread of entry modes. Joint ventures and exports account for 90% of the entry modes used to enter Mozambique.

Figure 11: Entry mode



The market entries into Mozambique were relatively spread out over the evaluation period, with a peak in 2000, as shown in Figure 12 below.

Figure 12: Dates of market entries



5.4 Measurement of the independent variables

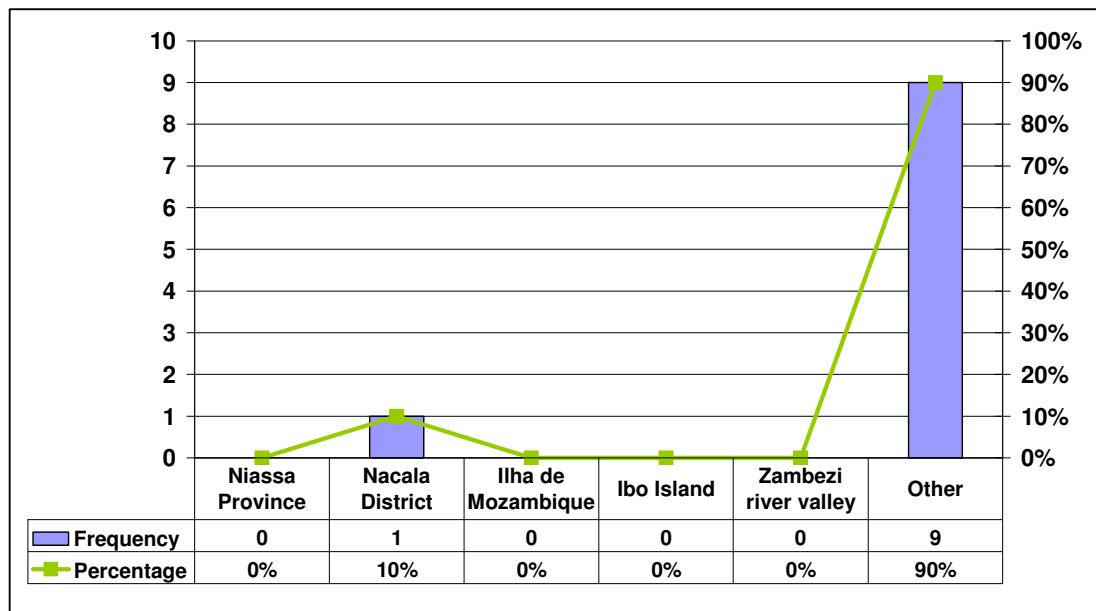
Measurement of the six independent variables is covered in this section.

5.4.1 Location factors

Mozambique has five so-called Rapid Development Zones: Niassa Province, Nacala District, Ilha de Mozambique, Ibo Island and the Zambezi River valley. As shown in Figure 13 below, only one entry was in a rapid development zone.

The significant selection of the category “other” in answer to the question about location is a limitation of the questionnaire. Although this data was not required for testing of hypotheses, it would have provided valuable input.

Figure 13: Location of entry

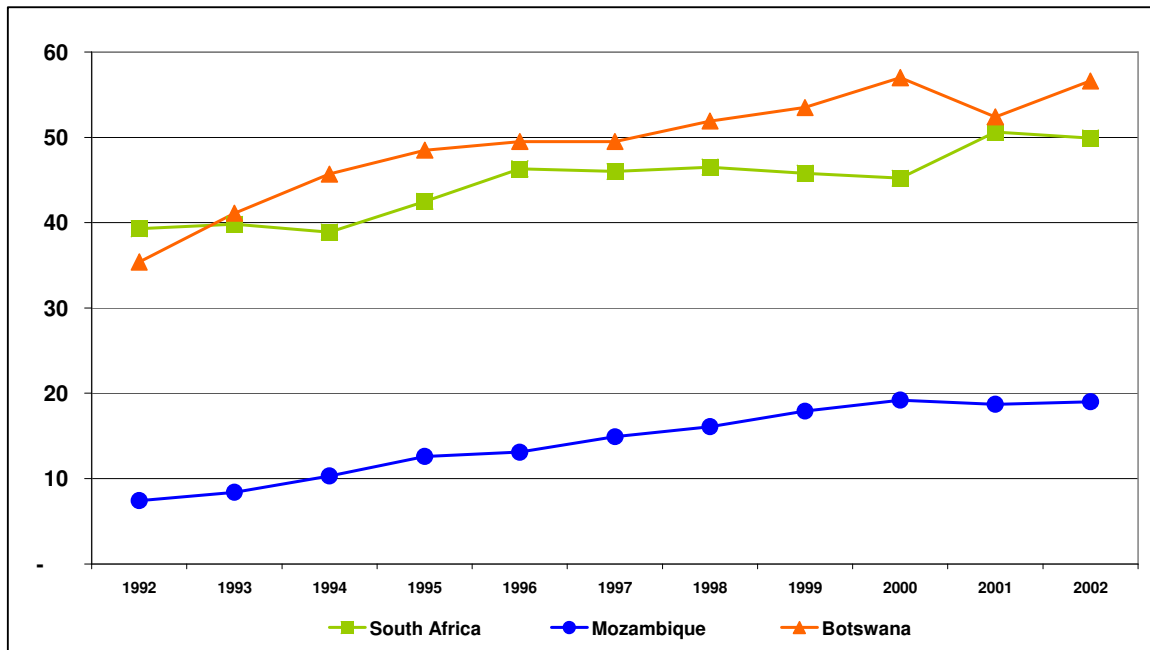


5.4.2 Host country risk factors

The *Institutional Investor* (March of each year) was the source of the investment risk ratings for Mozambique. Investment risk covers several macro level risks, including political, economic and legal risks, and a summary of the ratings was compiled by Chen (2005: 225). The rating scale runs from 0-100, where 100 is the least risky.

Mozambique has managed to lower its risk rating threefold over a 10-year period. The credit rating has stabilised at a level of 20. Figure 14 below shows the Mozambique credit rating in relation to South Africa and Botswana, two other countries that belong to the Southern African Development Community.

Figure 14: Mozambique country risk (credit) rating

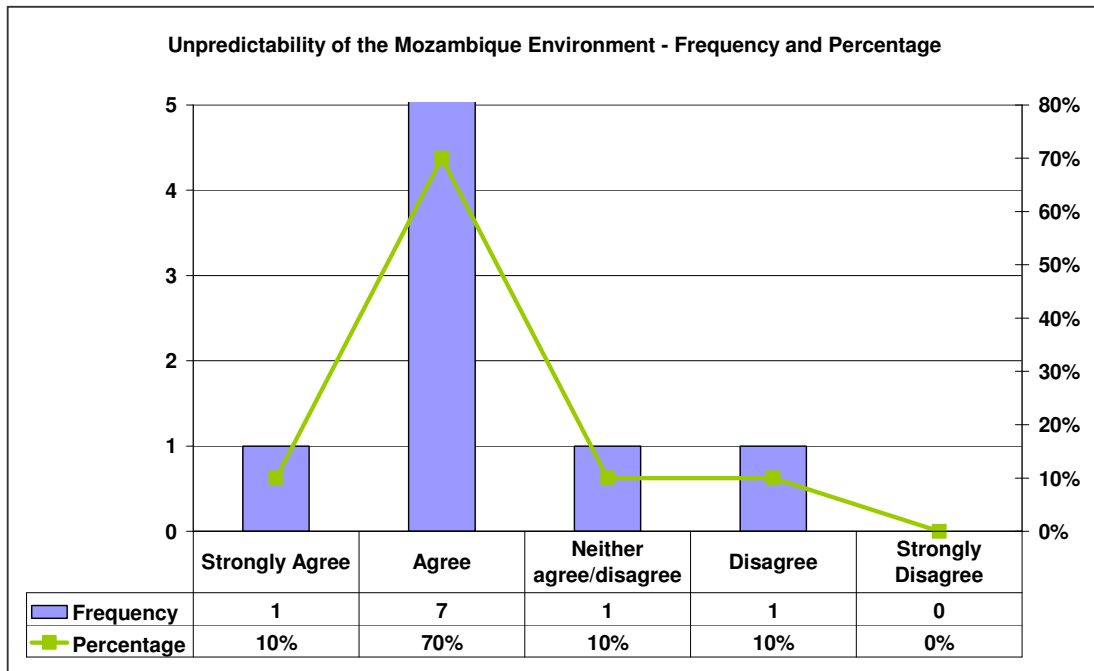


Source: Chen (2005: 225)

Respondents were asked to use a 5-point scale to rate the statement: “During market entry, Mozambique's environmental components were unpredictable e.g. political/legal and socio/cultural”.

As shown in Figure 15 below, the majority of them found the external environment to be unpredictable, which would have had a negative impact on their perception of the risks involved in market entry.

Figure 15: Perceived stability of the Mozambique environment



5.4.3 Risk orientation and power distance

Prof. Geert Hofstede (2003) conducted perhaps the most comprehensive study of how values in the workplace are influenced by culture, broken down into dimensions that are measured from 0 (low) to 100 (high). All the companies involved in this research were South African, with the following Hofstede scores for the uncertainty avoidance and power distance cultural dimensions:

Table 4: South African Hofstede dimensions

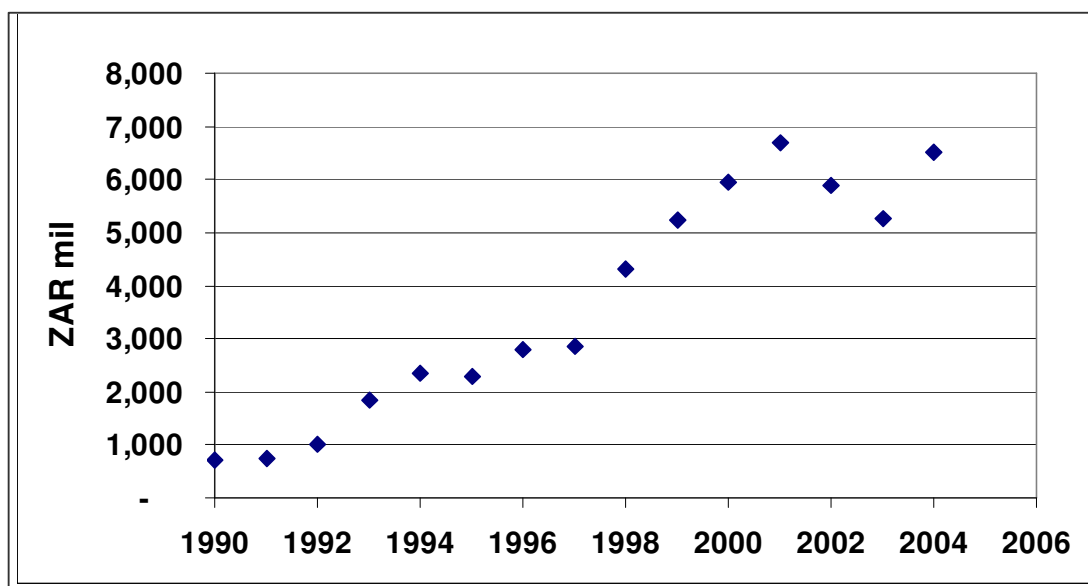
	Uncertainty avoidance	Power distance
South Africa	49	49
World average	64	55

Source: Hofstede, 2003

5.4.4 Interaction between host and home countries

The extent of trade interaction between South Africa and Mozambique is calculated as the sum of the exports of South African goods to Mozambique and the imports of goods from Mozambique to South Africa. According to the South African Revenue Service (Van der Horst, 2006), bilateral trade has increased steadily since 1990 but, over the past four years, has stabilised at a level of approximately ZAR6 billion.

Figure 16: South Africa-Mozambique bilateral trade



Source: Van der Horst, 2006

5.4.5 Industry factors

The industry factors included advertising intensity (a measure of marketing management) and asset turnover (a measure of asset management). Data for the industry factors was obtained from the questionnaire.

Table 5: Industry factors

Factor	Mean	Standard Deviation	Minimum	Maximum
Advertising Intensity	0.86% of sales value	1.06%	0.00%	2.50%
Asset turnover	0.87	0.93	0.04	2.33

5.5 The results of testing the hypotheses

5.5.1 Location factors

Hypothesis 1 – Location factor explains the choice between equity versus non-equity modes but not within each type.

Table 6: Location factors

Null hypothesis	Test	Calculated value	Critical Value	Result
There is no difference in the importance of rapid development zones to firms using equity versus non-equity modes	Chi-square	3.05	5.99	Fail to reject
There is no difference in the importance of rapid development zones to firms using joint ventures versus those setting up a wholly owned subsidiary	Chi-square	2.40	5.99	Fail to reject

As the calculated chi-square value is lower than the critical value at 5% significance, the null hypothesis is not rejected. This implies that there was no difference in the importance of rapid development zones to firms using equity market entry modes versus those using non-equity modes. This result is unexpected because, due to the resource commitment associated with equity entry modes, rapid development zones reduce overall investment risk.

There was also no difference between the importance of rapid development zones to a joint venture (JV) and to a wholly owned subsidiary (WOS). This result is expected, as rapid development zones would affect a JV or WOS equally. The validity of this result is however questionable as there was only one data point for WOSs.

5.5.2 Host country risk factors

Hypothesis 2 – Host country risk factors explain the choice between equity and non-equity modes, but not within each type.

Table 7: Host country risk factors

Null hypothesis	Test	Calculated value	Critical Value	Result
There is no difference in the importance of host country risk factors to firms using equity versus non-equity modes	Chi-square	2.86	5.99	Fail to reject
There is no difference in the importance of host country risk factors to firms using joint venture versus those setting up a wholly owned subsidiary	Chi-square	0.24	5.99	Fail to reject

As the calculated chi-square value is lower than the critical value at 5% significance, the null hypothesis is not rejected. There was therefore no difference in the importance of host country risk factors to firms using equity market entry modes versus those using non-equity modes. This result is unexpected due to the resource commitment associated with equity entry modes.

There was also no difference in importance of host country risk factors between joint ventures (JV) and wholly owned subsidiaries (WOS). This result is expected, as host country risk would affect a JV or a WOS equally. The validity of this result is however questionable as there was only one data point for WOSs.

5.5.3 Risk orientation

Hypothesis 3 – Risk orientation explains the choice between equity and non-equity modes, but less well within each type.

As the sample was limited to South African firms entering Mozambique, risk orientation could not be tested. This variable is related to culture and there were no other cultures with which to draw comparison.

5.5.4 Power distance

Hypothesis 4 – Power distance difference explains the choice between equity and non-equity modes, but less well within each type.

As the sample was limited to South African firms entering Mozambique, power distance could not be tested. This variable is related to culture and there were no other cultures with which to draw comparison.

5.5.5 Interaction (bilateral trade)

Hypothesis 5 – *The extent of interaction between host and home countries explains the choice between equity and non-equity modes, but less well within each type.*

Table 8: Interaction

Null hypothesis	Test	Calculated value	Critical Value	Result
The extent of interaction between host and home countries does not explain the choice between equity versus non-equity modes	Mann-Whitney	5	2	Fail to reject
The extent of the interaction between host and home countries does not explain the choice within each type of equity or non-equity				Insufficient data to test hypothesis

The calculated Mann-Whitney value is higher than the critical value at 5% significance; therefore the null hypothesis is not rejected. This means that the level of bilateral trade does not explain the choice between equity and non-equity modes. This result is unexpected as the knowledge gained from bilateral trade reduces the risk of equity investments.

5.5.6 Industry factors

Hypothesis 6 – *Advertising intensity and asset turnover explain the choice between equity and non-equity modes, but less well within each type.*

Table 9: Industry factors

Null hypothesis	Test	Calculated value	Critical Value	Result
There is no difference in advertising intensity between equity and non-equity entries	Mann-Whitney	1	2	Reject
There is no difference in asset turnover between equity and non-equity entries	Mann-Whitney	2.5	2	Fail to reject

The calculated Mann-Whitney value for advertising intensity is lower than the critical value at 5% significance; therefore the null hypothesis is rejected. There was therefore a difference in advertising intensity between equity and non-equity entries. This result is in line with theory, as firms are expected to adopt equity modes in industries with high advertising intensity and/or asset turnover (Pan & Tse, 2000).

The Mann-Whitney test for asset turnover shows that there was no difference in asset turnover between equity and non-equity entries.

5.6 Summary of results

The results of the hypothesis testing are summarised below in Table 10:

Table 10: Summary of hypothesis testing

	Hypothesis	Result
H01A	There is no difference in the importance of rapid development zones to firms using equity versus non-equity modes	Fails to reject
H01B	There is no difference in the importance of rapid development zones to firms using joint venture versus those setting up a wholly owned subsidiary	Fails to reject
H02A	There is no difference in the importance of host country risk factors to firms using equity versus non-equity modes	Fails to reject
H02B	There is no difference in the importance of host country risk factors to firms using joint venture versus those setting up a wholly owned subsidiary	Fails to reject

	Hypothesis	Result
H03A	Risk orientation does not explain the choice between equity versus non-equity modes	Not tested
H03B	Risk orientation does not explain the choice within each type of equity or non-equity	Not tested
H04A	Power distance does not explain the choice between equity versus non-equity modes	Not tested
H04B	Power distance does not explain the choice within each type of equity or non-equity	Not tested
H05A	The extent of interaction between host and home countries does not explain the choice between equity versus non-equity modes	Fails to reject
H05B	The extent of the interaction between host and home countries does not explain the choice within each type of equity or non-equity	Insufficient data to test
H06A	Industry factors do not explain the choice between equity versus non-equity modes	Rejects
H06B	Industry factors do not explain the choice within each type of equity or non-equity	Insufficient data to test

5.7 Measures of association

5.7.1 Binomial logistic regression

Binary logistic regression is used when the dependent variable is a dichotomy and the independent variables are of any type. Logistic regression can be used to predict a dependent variable on the basis of independent variables. Logistic regression was therefore performed between equity and non-equity entry modes.

Table 11: Logistic regression

Item	Equity vs Non-equity	Item	Equity vs Non-equity
Intercept	7.5	IP	-2.3
Culture	-1.1	Advertising Intensity	1892
Location_T1	1.8	Asset turnover	9.5
Location_T2	0.086	Risk Rate	5.1
Risk_T1	-3.8	Bilateral trade	0.001
Risk_T2	-0.049	Knowledge	-0.27
Environment	0.82		

5.7.2 Correlation matrix

A correlation test was performed and Table 8 shows the inter-correlations between the variables used in this study. A description of the variables used is given in Table 10.

The strong negative correlation between the advertising intensity and risk rate is of interest as the implication is that, the lower the risk, the lower the advertising intensity (note that a higher risk rating indicates a less risky country), i.e., the less risky the country, the lower the advertising intensity.

Also interesting is the very strong positive correlation between the country risk rate and bilateral trade, which was expected because the lower the country risk, the more likely firms are to trade with that country.

Table 12: Correlation matrix

	Entry mode	Culture	Location_T1	Location_T2	Risk_T1	Risk_T2	Environment	IP	Advertising intensity	Asset turnover	Risk rate	Bilateral trade
Entry Mode	1.00											
Culture	-0.05	1.00										
Location_T1	0.45	-0.59	1.00									
Location_T2	-0.64	-0.42	0.00	1.00								
Risk_T1	-0.08	-0.76	0.55	0.77	1.00							
Risk_T2	0.91	-0.11	0.55	-0.77	-0.20	1.00						
Environment	0.12	0.48	-0.53	-0.76	-0.88	0.29	1.00					
IP	-0.58	-0.11	0.00	0.00	-0.20	-0.20	0.29	1.00				
Advertising Intensity	-0.77	0.59	-0.85	0.20	-0.46	-0.78	0.30	0.30	1.00			
Asset turnover	0.68	0.52	-0.27	-0.58	-0.46	0.44	0.35	-0.76	-0.09	1.00		
Risk Rate	0.43	-0.76	0.93	0.05	0.63	0.55	-0.43	0.06	-0.90	-0.35	1.00	
Bilateral trade	0.26	-0.82	0.83	-0.01	0.47	0.49	-0.24	0.34	-0.75	-0.51	0.92	1.00

Table 13: List of variables

Label	Description	Label	Description
Entry Mode	Entry mode	Advertising intensity	Advertising intensity
Culture	Perceived cultural similarity	Asset turnover	Asset turnover
Location_T1	Importance of rapid development zones to the choice between equity and non-equity modes	Risk_T1	Importance of host country risk to the choice between equity and non-equity modes
Location_T2	Importance of rapid development zones to the choice within equity or non-equity modes	Risk_T2	Importance of host country risk to the choice within equity or non-equity modes
Environment	Perceived unpredictability of Mozambique environment	Risk Rate	Institutional investor credit rating for Mozambique
IP	Perceived protection of intellectual property	Bilateral trade	Bilateral trade between South Africa and Mozambique

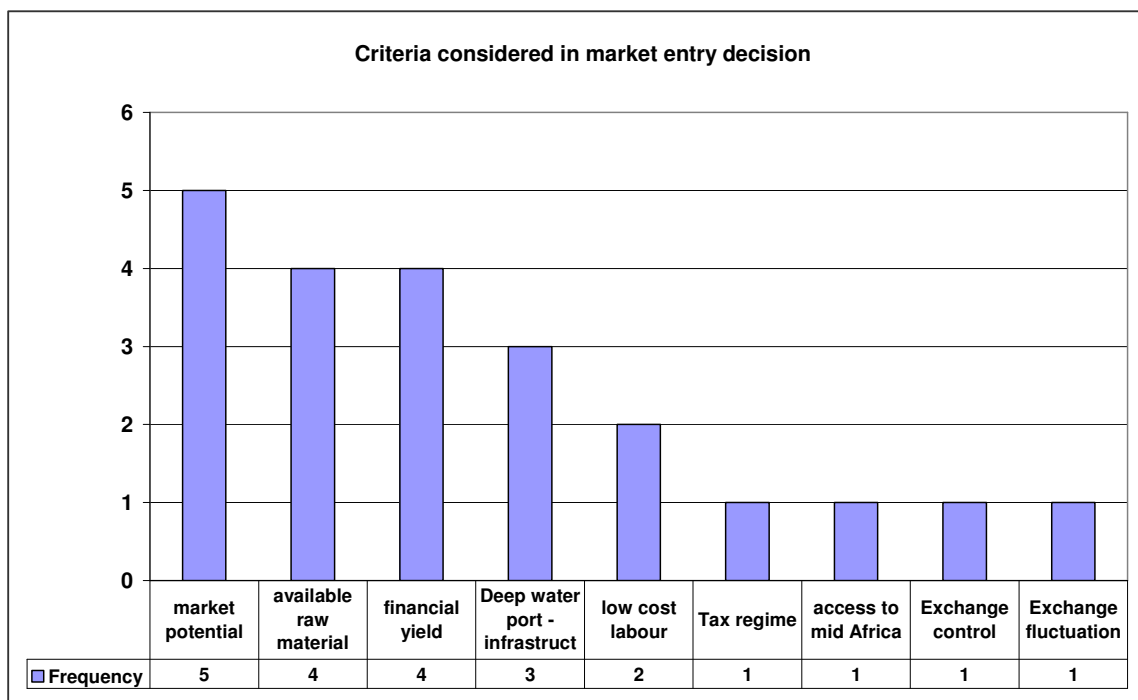
5.8 Qualitative analysis

The email questionnaire included open-ended questions, to gain further knowledge of the decision-making process used when entering Mozambique. Content analysis was used to determine common themes.

5.8.1 Criteria considered in market entry decision

Firms were asked to describe the criteria used when they made their decision to enter Mozambique, thus giving more insight into the management thinking surrounding the entry mode decision.

Figure 17: Criteria considered in market entry decision

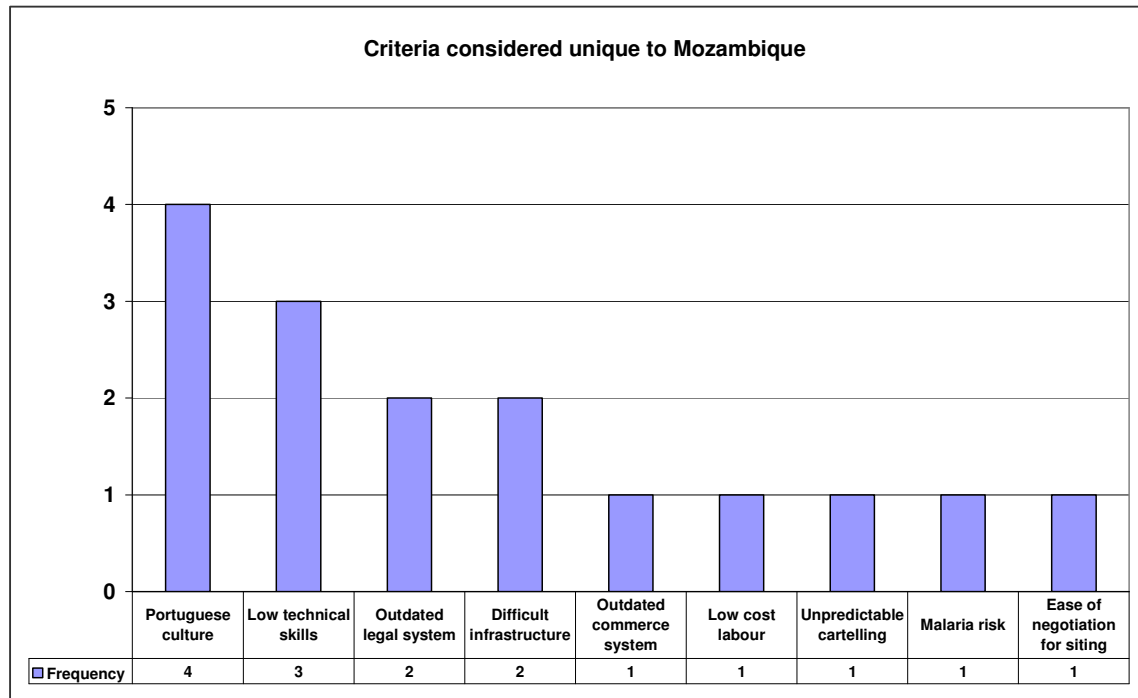


The overriding considerations were the market potential and the availability of raw material.

5.8.2 Criteria unique to Mozambique

There are generic entry mode criteria that are well documented and researched, such as country risk, location factors, etc. To determine criteria that may not have been previously included in research, firms were asked to describe the criteria they consider to be unique to Mozambique.

Figure 18: Entry criteria unique to Mozambique

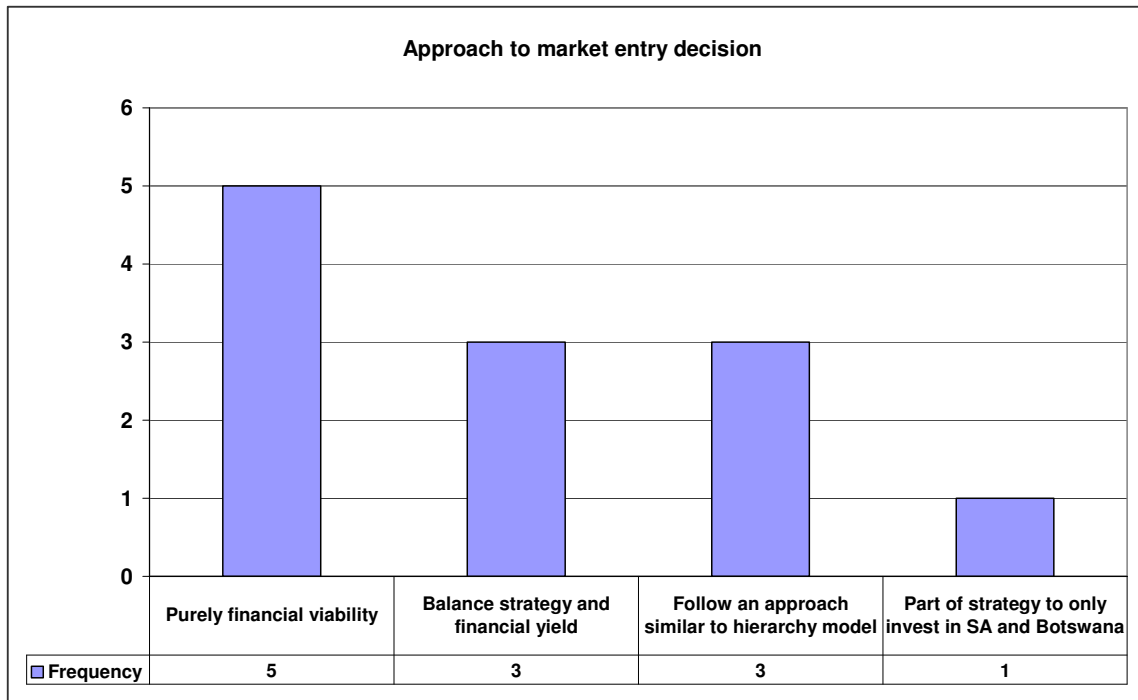


Apart from the cultural difference, low technical skills and an outdated legal system were seen as unique to Mozambique.

5.8.3 Market entry decision process

Firms were asked whether the approach they took when they made the decision to enter Mozambique was similar to the hierarchical model of entry modes. If the approach was different, firms were asked to describe their methodology.

Figure 19: Market entry approach



The most common theme was pure financial viability. Country risk does however influence financial viability through the cost of capital so the influence of host country risk manifests as a financial implication, i.e., it influences the cost of capital, which has a direct impact on financial viability.

6. DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

During the period 1994-2004, Mozambique experienced an 8.2% growth rate. Because of its tourism and mineral opportunities (amongst others), an understanding of entry modes into the Mozambique market is important. The entry mode decision has long-term effects on the value of the firm.

This research study had the following objectives:

1. To verify the ability of the hierarchical model of market entry modes to explain the market entry modes employed by South African manufacturing firms entering Mozambique;
2. To understand the evaluation criteria used to select the entry mode into Mozambique;
3. To establish whether there are any evaluation criteria specific to Mozambique;
4. To establish the predominant entry mode of South African manufacturing firms entering Mozambique.

The purpose of this chapter is to discuss and provide conclusions on the research objectives. Discussion of the hypotheses addresses the first research objective.

6.2 Location factors

Hypothesis 1 – Location factors explain the choice between equity versus non-equity modes but not within each type.

Mozambique has five rapid development zones, established with the aim of attracting FDI to those areas, because foreign firms are exposed to a lower risk in rapid development zones, thus encouraging equity type market entries (Pan & Tse, 2000). This was not reflected in the outcome of this research. The importance of rapid development zones was found to be no different to firms entering Mozambique via equity modes than to those entering via non-equity modes.

However, entry into rapid development zones was not well represented in the sample selected; only one of the respondents entered Mozambique in a rapid development zone. The small sample size was therefore the major limitation of this study.

It is believed that a bigger sample size would reflect more influence by prioritised location, as the qualitative analysis showed that firms approached the entry decision from a pure financial perspective, and rapid development zones offer incentives that directly impact project economics.

6.3 Host country risk factors

Hypothesis 2 – Host country risk factors explain the choice between equity and non-equity modes, but not within each type.

An equity investment operation is more likely to be permanent and involves higher resource commitment than a non-equity investment. It was thus expected that country risk would be of more importance to equity modes than to non-equity modes (Pan & Tse, 2000).

However, this research found that there was no difference in the relative importance of country risk to firms employing equity modes as compared to those employing non-equity modes. There was general consensus that the Mozambique environment was unpredictable during the market entry evaluations, but the environment risk did not change the decision to use equity or non-equity modes. This is against the principle of the hierarchical model of market entry modes.

From the correlation matrix, there was a high correlation between country risk and bilateral trade. Therefore the non-equity modes of entry (40% of the respondents export to Mozambique) and the equity modes appear to be similarly affected by country risk.

6.4 Risk orientation

Hypothesis 3 – Risk orientation explains the choice between equity and non-equity modes, but less well within each type.

South Africans score lower than the world average on uncertainty avoidance, and are thus less risk averse. However, as this study focuses on South African firms only, a comparison to other nations cannot be conducted.

6.5 Power distance

Hypothesis 4 – Power distance difference explains the choice between equity and non-equity modes, but less well within each type.

South Africans score lower than the world average on power distance and thus have lower inequalities in power and wealth. However, as this study focuses on South African firms only, a comparison to other nations cannot be conducted.

6.6 Interaction (bilateral trade)

Hypothesis 5 – The extent of interaction between host and home countries explains the choice between equity and non-equity modes, but less well within each type.

As firms trade in a foreign market, they gain more knowledge on the host country conditions and become more confident about employing equity modes of entry (Pan & Tse, 2000). The host country's increased knowledge lowers the risk of doing business. Therefore, the higher the bilateral trade, the more likely firms are to adopt equity modes of entry.

In this research, the Mann-Whitney test showed that the extent of interaction does not explain the choice between equity versus non-equity modes. Bilateral trade did appear to influence the decision on whether or not to enter Mozambique but did not sway the decision on whether to enter via equity or non-equity modes.

As noted previously, the correlation matrix shows a strong correlation between bilateral trade and country risk rating. Three of the market entries occurred in 2000, when bilateral trade reached a peak (and the credit rating reached a plateau).

6.7 Industry factors

Hypothesis 6 – Advertising intensity and asset turnover explain the choice between equity and non-equity modes, but less well within each type.

Pan and Tse (2000) proposed that firms are more likely to adopt equity modes of entry in industries with a high advertising intensity and/or a high asset turnover ratio.

The research showed that there was a difference between equity and non-equity mode selection with respect to the advertising intensity of the industries in Mozambique, but not with respect to asset turnover.

In an industry where sales generated (relative to a specific asset base) are high, firms are expected to internalise these operations. The low effect of asset turnover could therefore possibly be explained by other international business concepts, such as the importance of economy of scale, because export was one of the preferred entry modes into Mozambique, which makes sense in industries where economy of scale is important or there is a high value density (high value of product in comparison to the weight of the product).

6.8 Qualitative analysis

The qualitative study on the open-ended questions aimed to address research objectives 2, 3 and 4:

- To understand the evaluation criteria used to select the entry mode into Mozambique;
- To establish whether there are any evaluation criteria specific to Mozambique;
- To establish the predominant entry mode of South African manufacturing firms entering Mozambique.

The approach to market entry mode decisions is dominated by financial considerations, such as sourcing of capital. Sourcing of capital has an effect on the financial viability, because international lenders may have differing risk appetites, so the cost of capital in the host country is a function of risk rating and has a direct effect

on project economics. Therefore, even though economics (financial considerations) are cited as the rationale, host country and industry factors play a role.

Factors considered unique to Mozambique were the low technical skills of the workforce, the outdated legal and commerce systems and lack of infrastructure. However, it could be argued that these factors will be experienced in most developing countries.

The predominant entry mode identified in this study was joint venture formation (an equity entry mode); the second most favoured mode was exporting (a non-equity entry mode).

6.9 Implications for the Mozambique government

The Mozambique government has been successful in turning a war-ravaged country into one worthy of significant investment such as the Sasol Gas pipeline and the BHP Billiton smelter. To sustain economic growth, the government should be aware of issues hindering and enhancing FDI.

When considering investing in Mozambique, the criteria used by firms included:

- availability of raw materials
- infrastructure (including port facilities)
- low cost labour
- favourable tax regime
- favourable exchange control.

The government is in a position to address all these requirements through legislation and incentives.

Mozambique has also been cited as a difficult country within which to do business. Legislation around land ownership allows for 50-year tenure. As firms do not have land against which to mortgage a loan, the cost of capital rises (due to the increased risk), thus making the financial viability of projects lower.

With respect to the manufacturing industry, a lack of technically trained labour is hindering investment in Mozambique. Skills development and education systems should be high on the government agenda. Included in this training should be HIV/AIDS awareness training, as HIV/AIDS-related illness is decreasing the life expectancy of the workforce.

The declaration of five rapid development zones sends a strong signal of the Mozambique governments' commitment to attracting FDI. Investment in these zones will be increased by incentives that address the investment criteria cited above.

6.10 Implications for firms entering Mozambique

Mozambique is a growing economy with many opportunities for market entry and entry into Mozambique has been viewed as a strategic move, either to have access to mid-Africa or to defend market share in southern Africa from companies already in mid-Africa. However, firms should not take the entry decision lightly because there are challenges to doing business in Mozambique.

Respondents in this study, i.e., firms that have already entered Mozambique, included the following criteria as being unique to Mozambique:

- Low technical skills
- Outdated legal and commerce systems
- Difficult infrastructure.

The cost of these factors has to be considered in project economics and incentives or other enablers would have to be negotiated upfront.

6.11 Limitations

The small sample size of this study was a severe handicap in terms of proving the hypotheses. The entry mode categories of contracts and wholly owned subsidiaries were only represented by one firm each. Analysis within equity and non-equity modes is therefore not possible.

Convenience sampling was another limitation, as results could not be generalised to the full population.

Representation of the various industries was good; however some categories contained only one firm, thus precluding any inter-industry comparisons. Similarly, representation in rapid development zones was too low to conduct meaningful analysis.

This study was limited to South African manufacturing firms who had entered Mozambique. The effect of management orientation (culture) could therefore not be tested. Britain, Portugal and Japan also invest in Mozambique (refer to Figure 6). Including these nations in a similar study would provide useful data on a cultural basis.

6.12 Future research

Future studies could explore the bilateral trade-risk rating relationship because there was a strong correlation between these variables. The implication of this relationship would be useful to the Mozambique government from a macroeconomic perspective.

There was also a strong perception that the Mozambique (Portuguese) culture was very different to that of South Africa, although the South African culture itself is not homogenous. Risk avoidance and power distance in the business (management) context could be explored further in these two countries. Similarly, non-South African firms could be included in the research, to identify the influence of culture.

This study focussed on the manufacturing sector. However, Mozambique has a thriving tourism sector. The inclusion of service firms would make an interesting comparison.

One of the major limitations of this research was the small sample size. Future studies should have a representative number of respondents in each entry mode category.

6.13 Conclusions

The hypothesis testing indicated that the hierarchical model of market entry modes was not supported by the respondents. The testing of the first tier level of the model (equity versus non-equity) showed no relationship to the results obtained by Pan and Tse (2000), thus indicating that criteria thought to explain the choice between equity and non-equity modes were not used by the respondents of this research.

Of the four hypotheses tested in this research, only one variable (industry factors) made a difference to the choice between equity and non-equity entry modes. Therefore, even though there were insufficient data to draw conclusions at the second tier level (within equity or non-equity), this was not a problem due to the lack of correspondence at the first tier level.

This conclusion is supported by the qualitative data analysis. The entry mode decision was predominantly based on financial considerations and, in some cases, on strategic considerations.

REFERENCES

African growth and opportunity act competitiveness report. 2005: No City: Office of the United States Trade Representative.

Agarwal S & Ramaswami SN. 1992: Choice of foreign market entry mode: Impact of ownership, location and internalization factors. *Journal of International Business Strategy*, 23(1): 1-27.

Andersen O. 1997: Internationalization and market entry mode: A review of theories and conceptual frameworks. *Management International Review*, 37: 27-42.

Anderson E & Gatignon H. 1986: Modes of foreign entry: A transaction cost analysis and propositions. *Journal of International Business Studies*, 17: 1-26.

Bartlett C & Ghoshal S. 1991: Global strategic management: Impact on the new frontiers of strategy research. *Strategic Management Journal*, 12: 5-16.

Brouthers KD & Brouthers LE. 2003: Why service and manufacturing entry mode choices differ: The influence of transaction cost factors, risk and trust. *Journal of Management Studies*, 40: 0022-2380.

Brouthers KD & Nakos G. 2004: SME entry mode choice and performance: A transaction cost perspective. *Entrepreneurship Theory and Practice*, Spring 2004: 229-247.

Brown JR, Dev CS & Zhou Z. 2003: Broadening the foreign market entry mode decision: Separating ownership and control. *Journal of International Business Studies*, 34: 473-488.

Buckley PJ. 1998: The limits of explanation: Testing the internalization theory of the multinational enterprise. *Journal of International Business Studies*, 19: 181-193.

- Calhoun M. 2003: Country risk: Its measurement and impact on foreign direct investment. Unpublished Doctor of Philosophy report. New York: New York University.
- Chen, 2005: Extra Strategies for international construction markets. Unpublished Doctor of Philosophy thesis. Pennsylvania State University, Graduate School, Department of Architectural Engineering.
- Chu W & Anderson E. 1992: Capturing ordinal properties of categorical dependent variables: A review with application to modes of foreign entry. *Journal of Research in Marketing*, 9: 149-160.
- Coetzee JJ. 2005: *Theme 3: Global venture creation*. Lecture notes for Strategy Dynamics and International Business (MBL923-P). Graduate School of Business Leadership, University of South Africa.
- Cooper DR & Schindler PS. 2003: *Business research methods*, 8th edition. New York: McGraw-Hill.
- Coutsoukis P. 2006: *Mozambique Economy – 2006*: <http://www.theodora.com/wfbcurrent/mozambique/mozambique_economy.html>. Accessed on 2006/10/18. [Source of data is given as *2006 World Fact Book* of the United States Central Intelligence Agency].
- Dunning JH. 2001: The eclectic (OLI) paradigm of international production: Past, present and future. *International Journal of the Economics of Business*, 8(2): 173-190.
- Ekeledo D & Sivakumar K. 2004: International market entry mode strategies of manufacturing firms and service firms: A resource-based perspective. *International Marketing Review*, 21(1): 68-101.
- Erramilli MK & Rao CP. 1993: Service firms' choice of foreign-market entry modes: An empirical analysis using a modified transaction-cost framework. *Journal of Marketing*, 57(July): 19-38.

Gatignon H & Anderson E. 1988: The multinational corporation's degree of control over foreign subsidiaries: An empirical test of a transaction cost explanation. *Journal of Law, Economics, and Organisation*, 4(2): 305-336.

Hill CWL, Hwang P & Kim WC. 1990: An eclectic theory of the choice of international entry mode, *Strategy Management Journal*, 11: 117-128.

Hill CWL. 2003: *International business: Competing in the global marketplace*, 4th edition. New York: McGraw-Hill.

Hofstede G. [2003]: *Geert Hofstede™ Cultural Dimensions*. ITIM International. <http://www.geert-hofstede.com/hofstede_south_africa.shtml>. Accessed on 2006/10/18.

Kim WC & Hwang P. 1992: Global strategy and multinationals' entry mode choice, *Journal of International Business Studies*, 23(1): 29-53.

Kumar V & Subramaniam V. 1997: A contingency framework for the mode of entry decision. *Journal of World Business*, 32(1): 53-72.

Kumar R. 2005: *Research methodology: A step-by-step guide for beginners*, 2nd edition. London: Sage Publications.

Kwon Y & Konopa L. 1993: Impact of host country characteristics on the choice of foreign market entry mode. *International Marketing Review*, 10: 60-76.

Luo Y. 2001: Determinants of entry in an emerging economy: A multilevel approach. *Journal of Management Studies*, 38: 443-472.

Madhok A. 1997: Cost, value and foreign entry mode: The transaction and the firm. *Strategic Management Journal*, 18(1): 39-61.

Malhotra NK, Agarwal J & Ulgado FM. 2003: Internationalisation and entry modes: A multitheoretical framework and research propositions. *Journal of International Marketing*, 11(4): 1-31.

Mannorff H. 2004: *Assessment of the business environment and business opportunities in Mozambique and Sofala*. No publisher.

MBendi. 2006: *An Mbendi Country Profile for Mozambique including economic and travel overv.*

<<http://www.mbendi.co.za/land/af/mz/p0005.htm>>.

Accessed on 2006/10/18.

Pan Y & Tse D. 2000: The hierarchical model of market entry modes. *Journal of International Business Studies*, 31(4): 535-554.

Shi Y, Siu W & Ho P. 2001: Market entry mode selection: The experience of small Hong Kong firms investing in China. *Asia Pacific Business Review*, 8(1): 19-41.

Tse DK, Pan Y & Au KY. 1997: How MNCs choose entry modes and form alliances: The China experience. *Journal of International Business Studies*, 28(4): 779-805.

United Nations, International Chamber of Commerce. 2001: *An investment guide to Mozambique*. New York & Geneva: United Nations.

US Embassy Maputo, Mozambique. [2006]: *Country Commercial Guide 2006*, Chapter 6: Investment Climate. U.S. Department of State.

<http://maputo.usembassy.gov/trade_regulations_customs_and_standards.html>.

Accessed on 2006/10/18.

US Department of State, Bureau of African Affairs. 2006: *Mozambique 09/06 Background Note*. US government country profile.

<<http://www.state.gov/r/pa/ei/bgn/7035.htm>>.

Accessed on 2006/10/18.

Van der Horst A. 4 September 2006: South African import & export statistics
avdhorst@sars.gov.za

Accessed on 2006/09/04

Wikipedia. No date.

<www.wikipedia.org>.

Accessed on 2006/05/13.

Wild JJ, Wild KL & Han JCY. 2003: *International business*, 2nd edition. Upper Saddle River, USA: Prentice Hall.

World Bank. 2006: *Mozambique*.

<<http://www.worldbank.org/mozambique>>.

Accessed on 2006/10/18.

World Trade Organisation. 2001: *Trade policy review – Mozambique: January 2001*.

Geneva, Switzerland: WTO. <[http:](http://www.wto.org/English/tratop_e/tp154_e.htm)

[//www.wto.org/English/tratop_e/tp154_e.htm](http://www.wto.org/English/tratop_e/tp154_e.htm)>.

Accessed on 2006/10/18.

APPENDIX A: HYPOTHESIS STATEMENTS

In order to test the hypotheses for statistical significance, they have been stated in the form of the following alternate hypotheses and null hypotheses.

H01A: Location factors do not explain the choice between equity versus non-equity modes.

HA1A: Location factors explain the choice between equity versus non-equity modes.

H01B: Location factors do not explain the choice within each type of equity or non-equity.

HA1B: Location factors explain the choice within each type of equity or non-equity.

H02A: Host country risk factors do not explain the choice between equity versus non-equity modes.

HA2A: Host country risk factors explain the choice between equity versus non-equity modes.

H02B: Host country risk factors do not explain the choice within each type of equity or non-equity.

HA2B: Host country risk factors explain the choice within each type of equity or non-equity.

H03A: Risk orientation does not explain the choice between equity versus non-equity modes.

HA3A: Risk orientation explains the choice between equity versus non-equity modes.

H03B: Risk orientation does not explain the choice within each type of equity or non-equity.

HA3B: Risk orientation explains the choice within each type of equity or non-equity.

H04A: Power distance does not explain the choice between equity versus non-equity modes.

HA4A: Power distance explains the choice between equity versus non-equity modes.

H04B: Power distance does not explain the choice within each type of equity or non-equity.

HA4B: Power distance explains the choice within each type of equity or non-equity.

H05A: The extent of interaction between host and home countries does not explain the choice between equity versus non-equity modes.

HA5A: The extent of interaction between host and home countries explains the choice between equity versus non-equity modes.

H05B: The extent of interaction between host and home countries does not explain the choice within each type of equity or non-equity.

HA5B: The extent of interaction between host and home countries explains the choice within each type of equity or non-equity.

H06A: Industry factors do not explain the choice between equity versus non-equity modes.

HA6A: Industry factors explain the choice between equity versus non-equity modes.

H06B: Industry factors do not explain the choice within each type of equity or non-equity.

HA6B: Industry factors explain the choice within each type of equity or non-equity.

APPENDIX B: QUESTIONNAIRE DESIGN AND CONSISTENCY MATRIX

Research Question: To what extent is the hierarchical model of market entry modes by Pan & Tse (2000) relevant to manufacturing firms entering Mozambique?

Proposition No	Proposition	Source of data	Variable	Analysis
Sub-problem: Establish whether the evaluation criteria used to select entry mode in Mozambique are consistent with the hierarchy model.				
Hypothesis 1A	Location factors do not explain the choice between equity versus non-equity modes.	Quantitative measurement instrument	Location factors: Rest of Mozambique vs the Rapid Development Zones ¹ : <ul style="list-style-type: none"> • Niassa Province, • Nacala District, • Ilha de Mozambique, • Ibo Island • Zambezi river valley 	Mode for central tendency, Binomial test ² for statistical significance. Chi-square test for significance

¹ In the Rapid Development Zones, investments are exempt from import duties on certain goods, real property transfer tax and are granted an investment tax credit equal to 20% of the total investment (with a right to carry forward for five years).

² Binomial test is appropriate when there are two classes (in this case, rapid development zone vs other zones) and when the sample is too small to use Chi-Square (Cooper and Schindler, 2003:536)

Proposition No	Proposition	Source of data	Variable	Analysis
Hypothesis 1B	Location factors do not explain the choice within each type of equity or non-equity	Quantitative measurement instrument	Location factors: Rest of Mozambique vs the Rapid Development Zones: <ul style="list-style-type: none"> • Niassa Province, • Nacala District, • Ilha de Mozambique, • Ibo Island • Zambezi river valley 	Mode for central tendency, Binomial test for statistical significance. Chi-square test for significance
Hypothesis 2A	Host country risk factors do not explain the choice between equity versus non-equity modes	Institutional investor	Host country risk factors Annual credit risk rating	Median for central tendency; percentile/quartile for dispersion; Chi-square test for statistical significance
Hypothesis 2B	Host country risk factors do not explain the choice within each type of equity or non-equity	Institutional investor	Host country risk factors Annual credit risk rating	Median for central tendency; percentile/quartile for dispersion; Chi-square test for statistical significance
Hypothesis 3A	Risk orientation does not explain the choice between equity versus non-equity modes	Accepted data on Hofstede (2003)	Risk orientation Uncertainty avoidance (Hofstede, [2003])	N/A only South African companies
Hypothesis 3B	Risk orientation does not explain the choice within each type of equity or non-equity	Accepted data on Hofstede (2003)	Risk orientation Uncertainty avoidance (Hofstede, 2003)	N/A only South African companies
Hypothesis 4A	Power distance does not explain the choice between equity versus non-equity modes	Accepted data on Hofstede (2003)	Power distance (Hofstede, 2003)	N/A only South African companies

Proposition No	Proposition	Source of data	Variable	Analysis
Hypothesis 4B	Power distance does not explain the choice within each type of equity or non-equity	Accepted data on (Hofstede, 2003)	Power distance (Hofstede, 2003)	N/A only South African companies
Hypothesis 5A	The extent of interaction between host and home countries does not explain the choice between equity versus non-equity modes	IMF / World Bank	The extent of interaction between host and home countries Size of bilateral trade, length of diplomatic tie	Mean for central tendency; standard deviation is a measure of dispersion; Mann-Whitney will be used to test statistical significance
Hypothesis 5B	The extent of interaction between host and home countries does not explain the choice within each type of equity or non-equity	IMF/ SARS	The extent of interaction between host and home countries Size of bilateral trade, length of diplomatic tie	Mean for central tendency; standard deviation is a measure of dispersion; Mann-Whitney will be used to test statistical significance
Hypothesis 6A	Industry factors do not explain the choice between equity versus non-equity modes	Quantitative measurement instrument	Industry factors Advertising intensity and asset turnover	Mean for central tendency; standard deviation is a measure of dispersion; Mann-Whitney will be used to test statistical significance
Hypothesis 6B	Industry factors do not explain the choice within each type of equity or non-equity	Almanac of Business and Industrial Financial Ratios 1992 (Prentice-Hall)	Industry factors Advertising intensity and asset turnover	Mean for central tendency; standard deviation is a measure of dispersion; Mann-Whitney will be used to test statistical significance
Sub-problem: Establish whether there are any evaluation criteria specific to Mozambique.				
		Qualitative measurement instrument		Content analysis

Proposition No	Proposition	Source of data	Variable	Analysis
Sub-problem: Establish the predominant entry mode of manufacturing firms entering Mozambique.				
		Quantitative measurement instrument	Entry mode	Mode

* Source of proposition – Pan & Tse (2000)

*	During market entry Mozambique's environmental components were unpredictable e.g. political/legal and socio/cultural	Strongly agree Agree Neither agree or disagree Disagree Strongly disagree	Country specific factors <i>Environmental uncertainty</i> , host country risk; Hypothesis 2
*	The legal protection of various intellectual property rights systems such as patents, trademarks, etc. has been limited in Mozambique.	Strongly agree Agree Neither agree or disagree Disagree Strongly disagree	Country specific factors Property rights system Provides context
*	Protecting firm-specific resources, technologies, or knowledge will be imperative to my company's achievement of the strategic goals underlying this	Strongly agree Agree Neither agree or disagree Disagree Strongly disagree	Knowledge protection – firm-specific factors Provides context

* Source of question – Luo (2001)

APPENDIX C: QUESTIONNAIRE AND COVERING LETTER

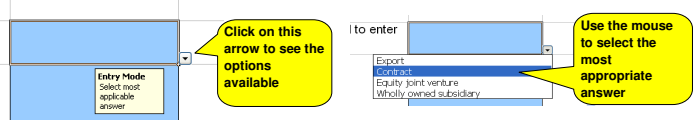
Reflect on a market entry made by your firm, into Mozambique. Please note that market entry is not limited to foreign direct investment (i.e. wholly owned subsidiaries and equity joint ventures), but includes exporting, licensing, or any other method of entry. Answer the following questionnaire with this entry in mind.

Question	Input Column
SECTION A: CHARACTERISTICS OF ENTRY	
Year of entry into Mozambique (<i>the year product is sold in the market</i>)	
Which of the following modes of entry best describes the initial method your firm used to enter Mozambique?	
Location of entry	
	Click here to view map
SECTION B: CHARACTERISTICS OF FIRM	
Which of the following categories best describes the primary business of your firm	
Home country of Investing firm (If a subsidiary, please enter home country of approval board)	
With respect to the next 2 questions how would you rate the statements as they applied to your firm at the time of entry?	
Our firms knowledge of the Mozambique business climate at the time of entry	
Cultural similarity between Mozambique and Home country	
SECTION C: ENTRY MODE DECISION PROCESS	
Location factors (E.g. availability of rapid development zones) affects the choice between equity and non-equity entry modes	
Location factors (E.g. availability of rapid development zones) affects the choice within each type of equity or non-equity entry modes	
Host country risk factors (overall country risk) affects the choice between equity and non-equity entry modes	
Host country risk factors (overall country risk) affects the choice within each type of equity or non-equity entry modes	
During market entry, Mozambique's' environmental components were unpredictable e.g. political/legal and socio/cultural	
The legal protection of various intellectual property rights systems such as patents, trademarks, etc. has been limited in Mozambique.	
Please provide estimates of the following:	
Advertising expense for 2005 (if a subsidiary, answer for entire business unit in this industry)	
Total Sales for 2005 (if a subsidiary, answer for the entire business unit in this industry)	
Value of Total Asset base for 2005 (if a subsidiary, answer for the entire business unit in this industry)	
Please state the currency used for the above figures	
SECTION D: OPEN QUESTIONS	
What factors (criteria) were considered in your entry mode decision	
What factors (criteria) do you consider to be unique to Mozambique	
If the approach suggested by the Hierarchy model (Refer to point 3 on the Introduction sheet) does not describe the thinking behind your entry, what approach was taken?	

- 1 A **green input cell** indicates that data needs to be entered.
For Example: Year of entry
This indicates that the firm entered Mozambique in 1999

1999

- 2 A **blue input cell** indicates that you must selection from a drop-down menu
Click on the input cell and an arrow will appear, click on the arrow to see the options available, then click on the most appropriate answer



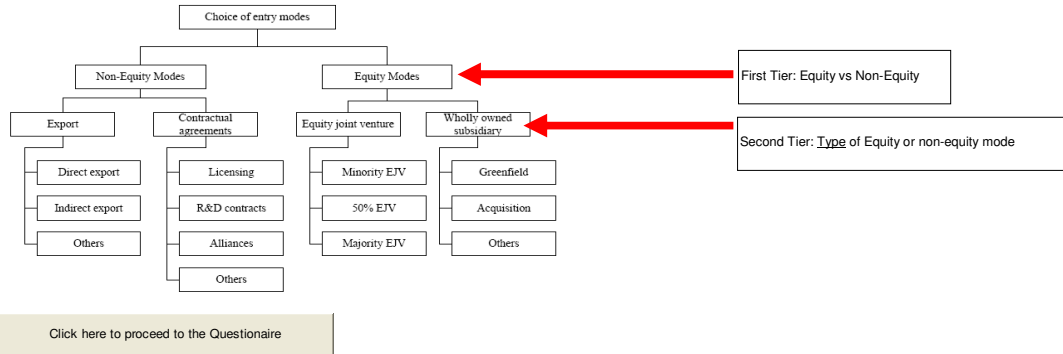
3 Introduction to the hierarchy model

The hierarchy model of entry mode selection proposes that managers structure entry modes into a multi-level hierarchy.

The first tier of the hierarchy is the **choice between equity and non-equity** entry modes (due to the difference in resource commitment involved in this decision).

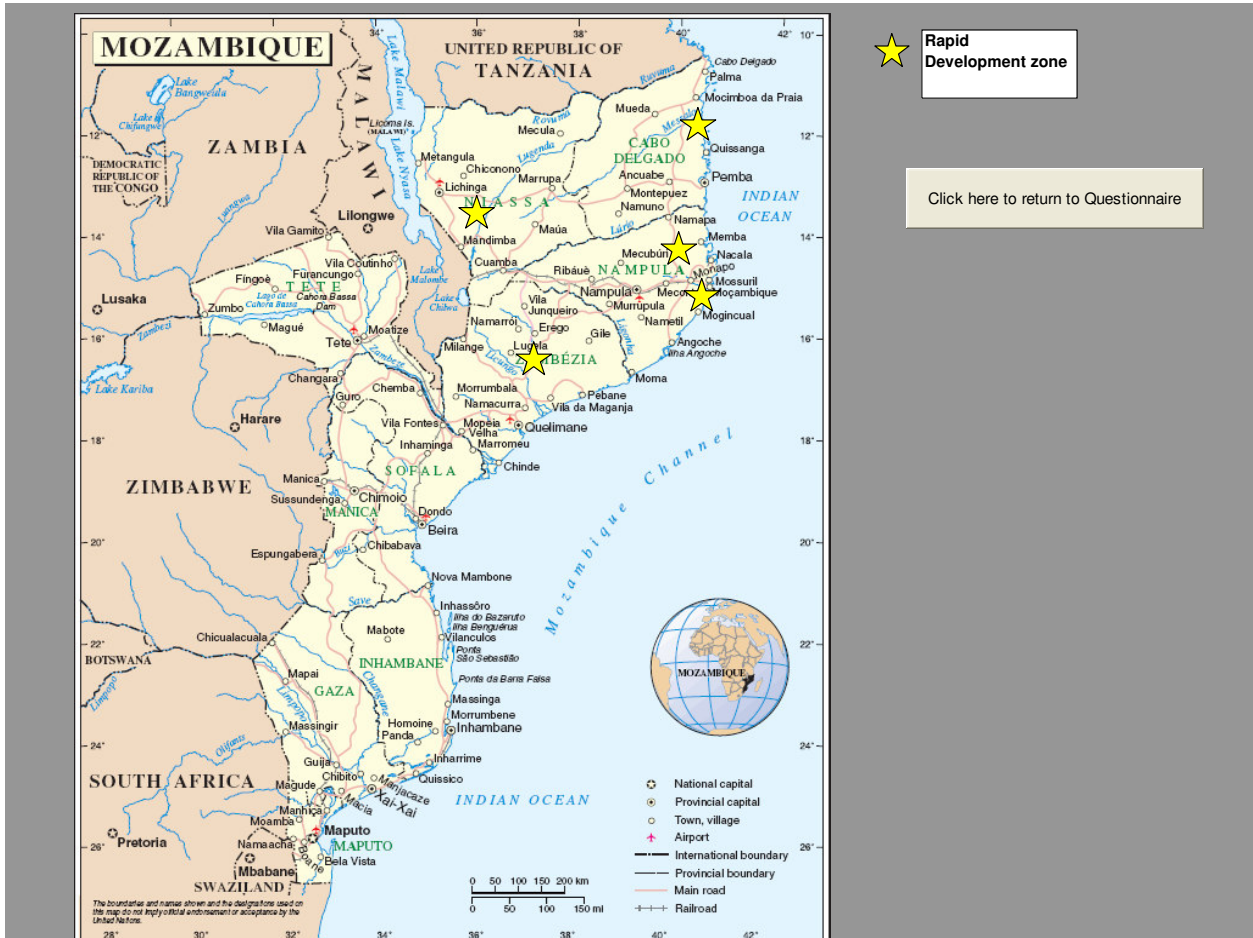
The second tier of the hierarchy is the choice of **what type of equity or non-equity mode**

Evaluation criteria (such as location factors) have differing importance at each level of this hierarchy.



Country risk	processes, government institutions and environmental elements that define the context of a transaction” (Calhoun, 2003: 5).
Entry Mode	The entry mode is the method that will be used in “serving foreign markets” i.e. how products will be introduced to that market
Foreign Direct Investment	Foreign Direct Investment occurs when a firm invests directly in facilities to produce and/or market a product in a foreign country
Home country	Home country refers to the “source country for foreign direct investment” i.e. if a South African firm makes the decision to invest in Mozambique, South Africa is the home country
Rapid development zone	To encourage investment in specific areas, investments in rapid development zones are exempt from import duties on certain goods, real property transfer tax and are granted an investment tax credit equal to 20% of the total investment (with a right to carry forward for five years).

Click here to return to Questionnaire



★ Rapid Development zone

[Click here to return to Questionnaire](#)

COVERING LETTER

To: Contact person
Company
Email:



From: Tracey Davis
Senior Business Analyst
Sasol Technology
Tel: (011) 344 0124
Fax: (011) 522 6047
Cell: 082 878 2602
Email: tracey.davis@sasol.com

Dear Mr/Ms

Research Project on Market Entry Modes into Mozambique

I am a final year MBL student at the UNISA Graduate School of Business Leadership (www.sblunisa.ac.za); and am currently working for Sasol Technology. In order to complete my studies I have to submit a comprehensive piece of research. The research project that I have chosen is entitled: "***The relevance of the hierarchical model of market entry modes to manufacturing firms entering Mozambique***".

An understanding of the factors affecting the decision to enter into foreign markets is critical due to the impact of these decisions on the value of the investing firm. The current body of knowledge is predominantly based on research conducted in the West and more recently, the Far East. Although each country is unique, a study of Mozambique will provide an African perspective to the theory.

I would appreciate it if you could assist my research by completing the attached email questionnaire. Estimated time to complete the questionnaire is 15 minutes. When opening the questionnaire, please enable macro's.

Please return the completed questionnaire to me at tracey.davis@sasol.com before the 20th August 2006.

I will abide by any confidentiality requirements that you may impose.

Thank you sincerely for your assistance. Please do not hesitate to contact me should you require further clarification.

Yours faithfully,
Tracey Davis

APPENDIX D: INTERNATIONAL MONETARY FUND RATINGS

Country	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Syria	20.3	22.4	23.1	24.9	24.6	25	24.7	23	23.2	25	22
Turkey	43.7	45.3	45.6	40.7	40.4	40.8	37.8	36.9	39	43.7	33.1
UAE	56.8	57.9	59.9	60.5	60.8	60.8	61.4	62.5	62.4	67.6	66.5
Australia	66.7	67.9	68.9	70.9	71	72.2	73.7	74.3	78.3	79	83
Bangladesh	17.2	19.3	20	24.8	26.5	27.4	27.2	25	25.5	27.4	26.2
Brunei											
Myanmar	13.8	12.4	13.3	16.4	18.9	21.3	21.7	18.7	16.9	16.4	13.3
China	54.4	56.3	58	57.6	56.4	58	57.6	57.2	56.6	58.6	57.6
HK	65.8	65.6	66	67	65.4	64.9	62.9	61.8	60.8	67	66.5
India	37.6	38.6	40	44.2	45.8	46.3	46.5	44.5	45.3	47.7	48
Indonesia	50.6	51.1	51.7	51.9	51.8	51.6	49.9	27.9	28.3	25.1	21.6
Japan	91.4	91	91	91.9	91	91.3	90.8	85.5	86.9	87.2	85.9
Kazakhstan		15.8	17.7	18.7	19.2	20.9	26.4	27.9	30.2	32.4	35
Korea, South	68.4	68.6	69.5		72	71.4	64.4	52.7	58.8	62.4	62.7
Korea, North	5.7	7.3	6.5		6.5	5.8	5.1	7.8	6.8	10.8	8.8
Kyrgyzstan									17.6	18	16.8
Malaysia	62.6	63.9	66.6	68.6	68.4	67.5	64.5	51	54.9	58.9	55.3
Nepal	22.6	21.7	23.2	24.4	23.9	25.2	25.5	24.4	26.8	26.9	23.9
New Zealand	61.8	63.8	66.1	68.2	70.3	71.7	73.4	73.1	75.5	76.9	78.4
Papua New Gu	32.1	32.4	32.8	32.4	33	32.5	33.2	30.4	30.9	28	27.8
Philippines	25.7	27.1	30.5	35.4	38.1	42.3	43.3	43.3	45.7	43.1	42.4
Singapore	78.5	80.3	81.4	83	82.8	83.9	82.9	81.3	80.4	85.8	84.8
Sri Lanka	23.4	25.5	27.7	32.4	32.5	33.2	33.6	33.3	35.4	34.6	31.7
Taiwan	76.9	78.5	79	79.7	78.9	77.1	75.5	75.5	76.2	76.1	73
Tajikistan									12.9	12.3	12.6
Thailand	62.8	60	61.1	63.5	63.4	61.1	52.3	48.9	48.8	50.2	48.2
Turkmenistan									17.1	18	16.3
Uzbekistan		14.5	14.3	14.4	14.9	17.1	19.6	18.3	18	19.2	17
Vietnam	16.8	17.5	21.9	27.6	30.3	32.5	32.7	27.8	29.1	28.5	29.3
Laos											14.9
Mongolia											20.8
Algeria	33.1	28.2	26.3	23.5	21.5	23.2	25.1	25.2	27.7	31.6	30.9
Egypt	24.9	27.1	29.8	32.9	34	36.7	41.3	44.4	45.4	47.5	45.9
Ethiopia	7	8.5	10.6	13.5	14.7	16	17.5	16.2	15.9	15.2	14.3
Libya	28.9	28.6	29.4	30.5	29.9	28.7	28.3	28.1	31.6	31.4	32.3
Morocco	29.7	32.2	35.8	39	38.7	39.7	41.5	43.2	45.6	44.3	43.7
Sudan	5.6	7	6.1	6.1	6.6	10.4	7.6	7.6	7.9	10.1	9
Tunisia	38.7	38.8	42.9	43.3	44.8	46.3	48	50.3	49.7	51.9	51
Angola	14	13.7	10.7	10.9	12.5	12.5	12.5	11.5	12.6	12.6	12.7
Benin			16.8	15.1	15.5	16	17.3	18.3	17.3	17	17.8
Botswana	35.4	41.1	45.7	48.5	49.5	49.5	51.9	53.5	57	52.4	56.6
Burkina Faso			17.2		16.4	17.7	20.1	18.8	19.2	18.4	17.7
Burundi									9.6	12	10.8
Cameroon	21.9	21.9	19.7	19	18.5	18.1	18.5	18.1	18	16.2	17.1
Congo	13.7	15.2	15.5	14.8	14.2	14	6.8	6.1	7.1		9.1
Gabon	26.4	28	27.4	25.8	25.1	24.1	24.7	23.2	22.2	22.4	21.5
Ghana		24.2	27.1	29.2	29.2	30.6	31.4	29.5	31	27.2	24.6
Guinea			13.1	13.8	13.7	13.8	16.4	15.4	14.4	14.9	15.2
Kenya	25.9	24.7	22.8	24.9	26.9	27.9	26.7	24.1	26.6	24.4	20.8
Liberia	7	6	6	6.2	6.9	6.9	7	7.6	8.4	11	8
Malawi	16.7	16.2	17.4	18.8	19.8	19.8	20.1	20.4	19.5	19.1	18.2
Mozambique	7.4	8.4	10.3	12.6	13.1	14.9	16.1	17.9	19.2	18.7	19
Nigeria	21.2	20.3	18.6	17.5	14.8	14.8	15.2	16.8	18.3	18	17.8
Senegal	17.8	20	20.9	21.6	21.5	19.8	21.6	21.7	23.2	23.2	25.1
Sierra Leone	6.7	6.7	7.2	8.1	7.8	6.6	5.7	6.3	7.1	8.8	8.3
South Africa	39.3	39.8	38.9	42.5	46.3	46	46.5	45.8	45.2	50.6	49.9
Swaziland	19.7	22.2	26.3	28.5	30	31.8	33.1	28.5	29.7	28.6	28.7
Tanzania	12.5	12.9	13.9	15.5	17.7	18.1	19.3	18.3	19.1	20.1	20.5
Uganda	5.5	7.3	10.1	12.8	14.5	17.7	21.2	20.3	22.9	22.3	21.2
Congo DR									8	10.2	8.4
Zambia	9.8	11.7	13.1	14.6	15.7	16.1	17.5	16.1	15.1	16.1	15.1
Zimbabwe	28.3	27.7	27.9	30.7	32.2	32.3	33.6	26.5	24.1	16.2	11.3

Source: Chen, 2005

