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An Assessment of Supply Chain Risk Management in Africa: The Case of UNKI Platinum Mine in Zimbabwe

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A research project submitted to Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration.

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ABSTRACT

An ever-increasing number of companies have bought into the Africa investment proposition, and are now focusing on how to effectively execute a growth strategy in what remains an inherently complex environment to do business. African markets are progressively open for business. Despite perceptions of elevated risk, in many ways, the continent is no different to others. Sound business practices enable well-run firms to convert business strategies into actual results, regardless of where these firms are placed.

The research shows that AngloAmerican Platinum investment decisions were based on more than cost-benefit returns. There was more to Anglo's case for investing in Zimbabwe. Political knowledge and organisational structure and national culture were implicitly part of AngloAmerican Platinum decision making. Political criteria have become increasingly entwined with business decisions in emerging economies in Africa where medium-to-long-term stability is questioned.

Supply Chain Risk Management (SCRM) plays a major role in successfully managing business processes in a proactive manner. Supply chain risk has multiple sources including process, control, demand, supply and environment. Supply chain management, faced with these risks, requires specific and adequate responses such as techniques, attitude and strategies for management of risk. Since every organisation strives for success and uninterrupted operations, efficient supply chain risk management is crucial. Supply chain risk management has the ability to achieve a competitive advantage where a risk is identified, estimated, managed and controlled.

The study assesses development and implementation of supply chain risk management strategies in African markets, by using UNKI Platinum mine in Zimbabwe as a case study. This approach provides insight to a real-world setting that could be applied in a broader context. The aim was met by interviewing nine senior managers and executives who directly or indirectly participated in the development and implementation of supply chain risk management at UNKI Platinum mine. Furthermore, two suppliers and two industry experts were interviewed to ensure validity of the research case study. The data from the interviews were combined with data from the literature review.

The study concludes with a list of factors that can be deemed to be important to the development of entry-strategies into Zimbabwe. Moreover, another list of themes emphasising the elements of importance in the development and implementation of supply chain risk management strategy were identified. In essence, the learnings are used to propose a conceptual framework for supply chain risk management strategies in Africa.

KEY WORDS

Supply Chain Risk Management

Supply chain management

Emerging Africa

Zimbabwe

DECLARATION

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

……………………………… 11 November 2013

Matshedisho E. Mndzebele

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ACRONYMS

Acronym	Definition
AAP	Anglo American Platinum Ltd
AHA	Analytic Hierarchy Process
AHP	analytic hierarchy process
Amplats	Anglo American Platinum
Amzim	Anglo American Corporation Zimbabwe Limited
AT	Agency Theory
CEO	Chief Executive Officer
CSO	Central Statistical Office
FMEA	Failure Mode Effect Analysis
GDP	gross domestic product
HOD	Head of Department
HOR	House of Risk
IFC	International Finance Corporation
IMF	International Monetary Fund
ISO	International Organisation for Standardization
IT	Institutional Theory
JCI	Johannesburg Consolidated Investment
JSE	Johannesburg Stock Exchange
LoM	Life of Mine
LPI	Logistics Performance Index
MAS	Multi-Agent System
MAS	Multi-Agent System
MDC	Movement for Democratic Change
MNC’s	Multinational Corporation(s)
PGM	Platinum Group Metals
PPL	Potgietersrus Platinum’s Limited
RBT	Resource-Based Theory
RSF	Reporters Sans Frontieres
SC	Supply Chain
SCM	Supply Chain Management
SCRM	Supply Chain Risk Management
SSA	Sub-Sahara(n) Africa
TCT	Transactional Cost Theory
ZANLA	Zimbabwean African National Liberation Army
ZANU	Zimbabwe African National Union
ZANU-PF	Zimbabwe African National Union Patriotic Front
ZAPU	Zimbabwe People’s African Union
ZDF	Zimbabwe Defence Forces
ZIMRA	Zimbabwe Reserve Authority
ZIPRA	Zimbabwe People’s Revolutionary Army
ZNA	Zimbabwe National Army
ZSE	Zimbabwe Stock Exchange

CHAPTER 1: INTRODUCTION

1.1 Introduction

The story of Africa's on-going growth and development is gaining momentum. The trends in the global market for doing business in African countries suggest a potential for increased growth for the African market. Conversely, a number of risks threaten to derail African economic growth. A deeper understanding on the development of appropriate risk management strategies and their potential to undermine growth is essential.

The assessment of supply chain risk management in Africa, using the UNKI Platinum mine in Zimbabwe as a case study, is discussed in this research paper. Specifically, in this chapter, a background of this research topic is provided. The rationale of the research and research limitations of the study are then addressed. Finally, the research format of the dissertation is introduced.

1.2 Problem Definition

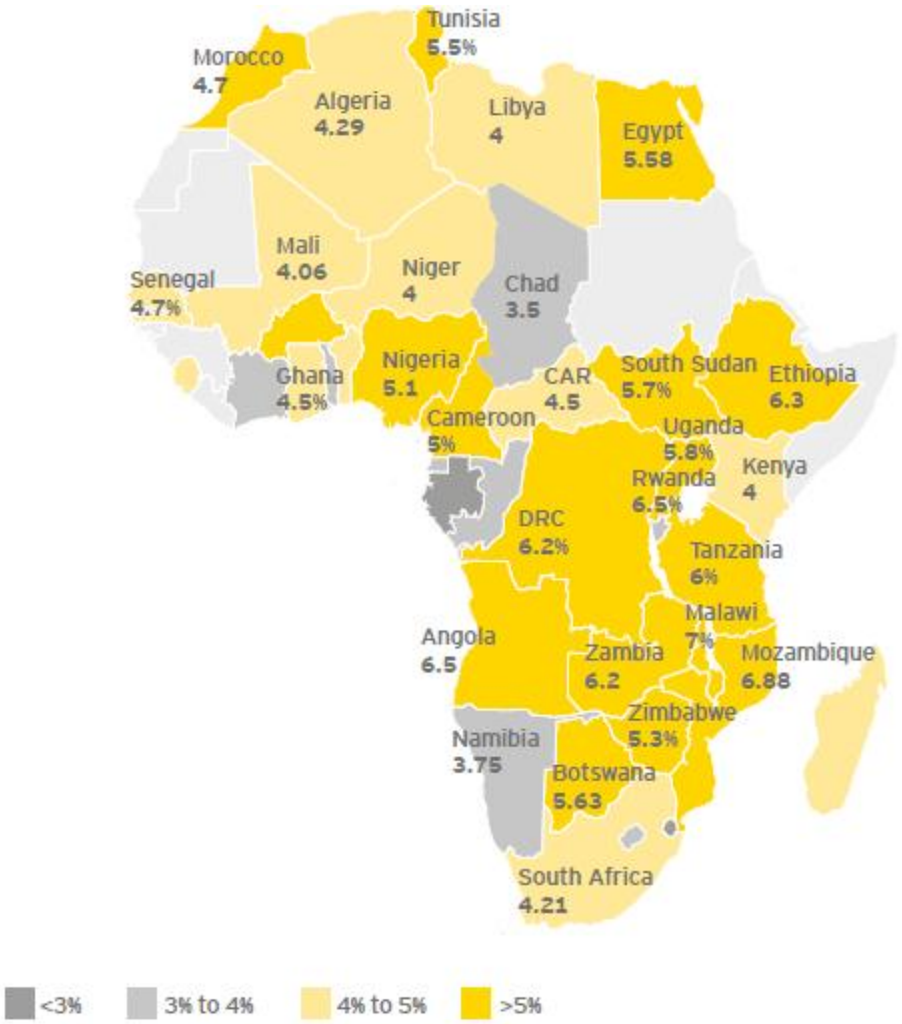
This research examines the factors of the supply chain risk management strategy (SCRM) of UNKI Platinum mine in Zimbabwe.

The "emerging economies" term has become somewhat dated, and another term used to refer to emerging economies is "dynamic markets," introduced by White (2013). It captures the essence of the evolving social, political and economic environment, within which organisations have to operate. While the term "dynamic market" is a useful basis for this study, there is limited literature on the area, therefore the theoretical paradigms explored herein utilise the term emerging economies, and hence the two terms may be used interchangeably throughout this research paper.

Africa's economic momentum has accelerated, with a collective gross domestic product (GDP) of $1.6 trillion in 2008, making the continent one of the world's most rapidly growing economic regions. While Africa's increased economic momentum is widely recognised, not much is known of its sources and the longevity thereof (Mckinsey Global Institute, 2010). This research paper's motivation is based on this main premise, with a particular interest in the area of supply chain risk management strategies (SCRM).

In the last decade, Africa has experienced one of the highest levels of economic growth, and the Sub-Saharan African (SSA) region is expected to continue to grow at an unrivalled pace during 2013 and 2014 (International Monetary Fund, 2013). The forecasted growth rate in the African region, with emphasis on Zimbabwe's development, is approximately four to five percent as indicated in Figure 1.1.

Figure 1.1: Africa's projected GDP growth rate



Source: Oxford Economics; Ernst & Young Growing Beyond Borders™.

These growth projections potentially cultivate a number of risks in the supply chain environment (Ma, Lee, & Chen, 2009). By proactively managing this challenge, organisations stand to benefit and potentially remain ahead of competition. The activity of goods and service sourcing from western-based companies in emerging markets is a growing phenomenon and provides new challenges such as increased levels of risk associated with supply chain elements namely quality, delivery, and lead time. These risks are increased when sourcing from emerging markets when compared to the risks involved with developed markets (Li & Barnes, 2008).

While there seems to be an increase on the subject of SCRM in emerging markets, research on Africa remains limited. Literature therefore provides limited answers to new questions around SCRM strategies in Africa, arising from the dynamism of the African market (Wright, Filatotchev, Hoskisson, & Peng, 2005). This research thus makes a contribution to the development of SCRM strategy in Africa, by focusing on the factors that contributed to development and implementation of SCRM strategies at UNKI Platinum Mine.

Fligstein and Zhang (2011) and Lin (2011) explained that the differential performance across developed versus emerging economies since the financial crisis in 2008 exposed the potential weaknesses and imperfections of the "advanced" institutions. Therefore, a greater emphasis on both experimenting and developing indigenous approaches to solving problems faced by firms in or from emerging economies was encouraged.

The research topic, "*An Assessment of Supply Chain Risk Management in Africa: The Case of UNKI Platinum Mine in Zimbabwe*", is presented as a methodological management style for enhancing value in a typical multinational corporation (MNC). Furthermore, an emphasis on the factors that may prove to be detrimental to the success of supply chain risk management strategies is discussed.

1.3 **Research Rationale**

The research assessed supply chain risk management strategies used in African markets, by using UNKI Platinum mine in Zimbabwe as a case study. This approach provides insight to a real-world setting that can be applied in a broader context. The research contributes to the supply chain body of knowledge, especially in the area of supply chain sourcing risks.

The primary purpose of this research is to identify elements that contribute to a suitable supply chain risk management strategy that are useful to any MNC intending to penetrate the African market, especially in the mining industry. Suppliers play a crucial role as they can potentially assist organisations to optimise their supply chain expenditure, responsiveness, reliability and competitiveness.

Given these dynamics, the effective management of supply chain sourcing risks requires to close monitoring as it may result in risks such as delays in receipt of the material; or mismatch in quantity supplied; or material being of inferior quality or damaged; or the alteration in commercial terms delaying the supply (Ketkara & Vaidyab, 2012). A popular view is that since an organisation has greater control over the supplier, supply side uncertainty can be handled by choosing appropriate partners with which to do business.

Barloword-Logistics (2012) stated that Africa is full of contradiction, and notes that Zimbabwe is often listed as South Africa's Achilles' heel in terms of business confidence. Despite the socio-economic woes of Zimbabwe, Beitbridge remains Africa's busiest border post when measured by cargo volume. This is another motivation for choosing an organisation based in Zimbabwe, in order to gather insight to how their SCRM strategies were developed and implemented.

1.4 **Research Limitations**

African countries, like many emerging market geographical regions, are not homogenous. However, according to Hoskisson, Eden, Lau, and Wright (2000) they share many of the same constraints. Although the research focused on a platinum mining organisation situated in Zimbabwe, the learnings may be utilised in any industry and by any organisation intending to enter any African country.

Emerging market strategy in the context of this study relates to market selection, market entry, organisation structure, and all other strategic decisions that MNCs would have to make when entering African emerging markets. The scope of the research is primarily on the following main themes: emerging economies, supply chain management, sourcing strategies and supply chain risk management.

1.5 **Emerging Economies**

Emerging markets are increasingly becoming the growth determiners of the global economy. There has been increased scrutiny and interest in emerging markets since the 1990s. Attempts to redefine the dated concept of emerging markets have resulted in neglecting some significant distinguishing attributes of these new drivers and shapers of global political economy.

As a result of the rapid pace of development and government policies that favour economic liberalisation, emerging economies assume an increasingly prominent position in the world economy. The importance of emerging economies to global business may be deduced from the increase in strategy research over half a decade ago, driven primarily by MNCs wishing to enter emerging economies (Wright, Filatotchev, Hoskisson, & Peng, 2005).

Once attractive only for their natural resources or as a source of cheap labour and low-cost manufacturing, emerging markets are seen as promising markets in their own right. The emerging markets already attract almost 50% of foreign direct investment (FDI) global inflows and account for 25% of FDI outflows. Amongst the leading areas for FDI, Africa continues to be the first.

Zimbabwe is amongst countries that have continued to grow despite political uncertainty. Its economy recorded real growth of more than 9% per year during 2010 and 2011, before slowing to 5% in 2012 (African Economic Outlook, 2012). However, for more than a decade the socio-economic and political conditions in the country have been in decline.

According to the World Bank (Ease of Doing Business, 2013), Zimbabwe ranked 173 out of a total of 185 countries. It is apparent that the country is not a good environment for business. However UNKI Platinum mine has progressively performed well under these conditions. The research seeks to understand the drivers of UNKI Platinum mine's success from a supply chain risk management perspective.

1.6 Supply Chain Management and Supply Chain Risk Management

Tang (2006b) defined SCM as the management of material, information and financial flows through a network of organisations (i.e. suppliers, manufacturers, logistics providers, wholesalers/distributors, and retailers) that aims to produce and deliver products or services for the consumers. It is evident that SCM also involves the management of processes and activities across different functions within the organisation. Furthermore, Tang (2006b) defined SCRM as the management of supply chain risks through coordination among the supply chain stakeholders to ensure profitability and continuity.

Many more researchers in the field of supply chain management have defined SCRM. Lavastre, Gunasekaran and Spalanzani (2012) defined SCRM as the management of risk that implies both strategic and operational horizons for long-term and short-term assessment. A limited number of empirical research papers (for instance, Jiang, Baker & Frazier (2009), Thun and Hoenig (2009) and Wagner, Bode and Koziol (2009) have discussed ways to minimise and manage supply chain.

Furthermore, some studies have been completed on SCRM in Australian companies (Singh, Smith & Sohal, 2005), Chinese companies (Jiang et al, 2009), German companies (Thun & Hoenig, 2009), and French companies (Lavastre et al, 2012), however few have been undertaken in the emerging markets; none in the Sub-Saharan-Africa context. To fill this gap, the research study seeks to broaden the knowledge on SCRM approaches in the African context.

Tang (2006b) further explained that four approaches can be used to manage supply chain risks, namely:

- Supply management,
- Product management,
- Demand management, and
- Information management;

However, for purposes of the research, emphasis is limited to supply management because the main focus is to understand the SCRM at UNKI Platinum mine from a sourcing perspective.

1.7 **Sourcing Strategy**

With the advent of worldwide sourcing, as well as the overall prevalence of outsourcing, firms now seek a variety of capabilities from their suppliers, and purchasing often takes the lead in that search (Holcomb & Hitt, 2007). Tomlin (2006) argued that supplier reliability and the nature of the disruptions are key determinants of the optimal strategy. Moreover, Kleindorfer and Saad (2005) contend that in order to mitigate consequences of supply risk, the nature of the risk needs to be specified, the quantitative mitigation strategy needs to be defined. Furthermore, the insights are used to determine the applicability of each type to the SSA context.

1.8 **Background UNKI Platinum Mine**

The UNKI Mine is a Platinum Metal Group (PMG) mine. The operations of UNKI Mines (Pvt) Limited are situated on the Great Dyke of Zimbabwe, approximately 60 kilometres south-east of Gweru. The mine is a mechanised, trackless board-and-pillar underground operation. A twin decline shaft system provides access to the underground workings for personnel and material, and also serves to convey ore. Both decline shafts are now 1,620 metres from portal on surface (AngloAmerican, 2013).

Anglo American Platinum Limited-managed mines consist of 11 mines and one project stretching from the Western Limb to the Eastern Limb of the Bushveld Complex in South Africa. Ten mining sections have been established, with strike belts transferring ore directly onto the main decline shaft conveyor. Run-of-mine ore is processed at the 120,000 tonne-per-month concentrator plant on site. The life-of-mine (LoM) of the current operations at UNKI East extends to 2041, although projects in study could extend LoM to beyond 2055. UNKI Mine's Mineral Resource (exclusive of Ore Reserves) stands at 26.0 4E million ounces, while its Ore Reserve stands at 6.5 4E million ounces (AngloAmerican, 2013).

The UNKI mine is owned by AngloAmerican Platinum (AAP) and 10% is owned by the Zimbabwean locals in respect of UNKI's compliance with the Indigenisation and Economic Empowerment Act. It is currently in the process of being further indigenised under the country's indigenisation laws after AAP agreed to dispose 51% shareholding to indigenous Zimbabweans. The mine employs about 1 000 people on a direct and permanent basis.

1.9 **Research Format**

The research study is structured into seven chapters. A set of appendices containing supporting information as well as the results of data collection and analysis form part of the attachments of this research report.

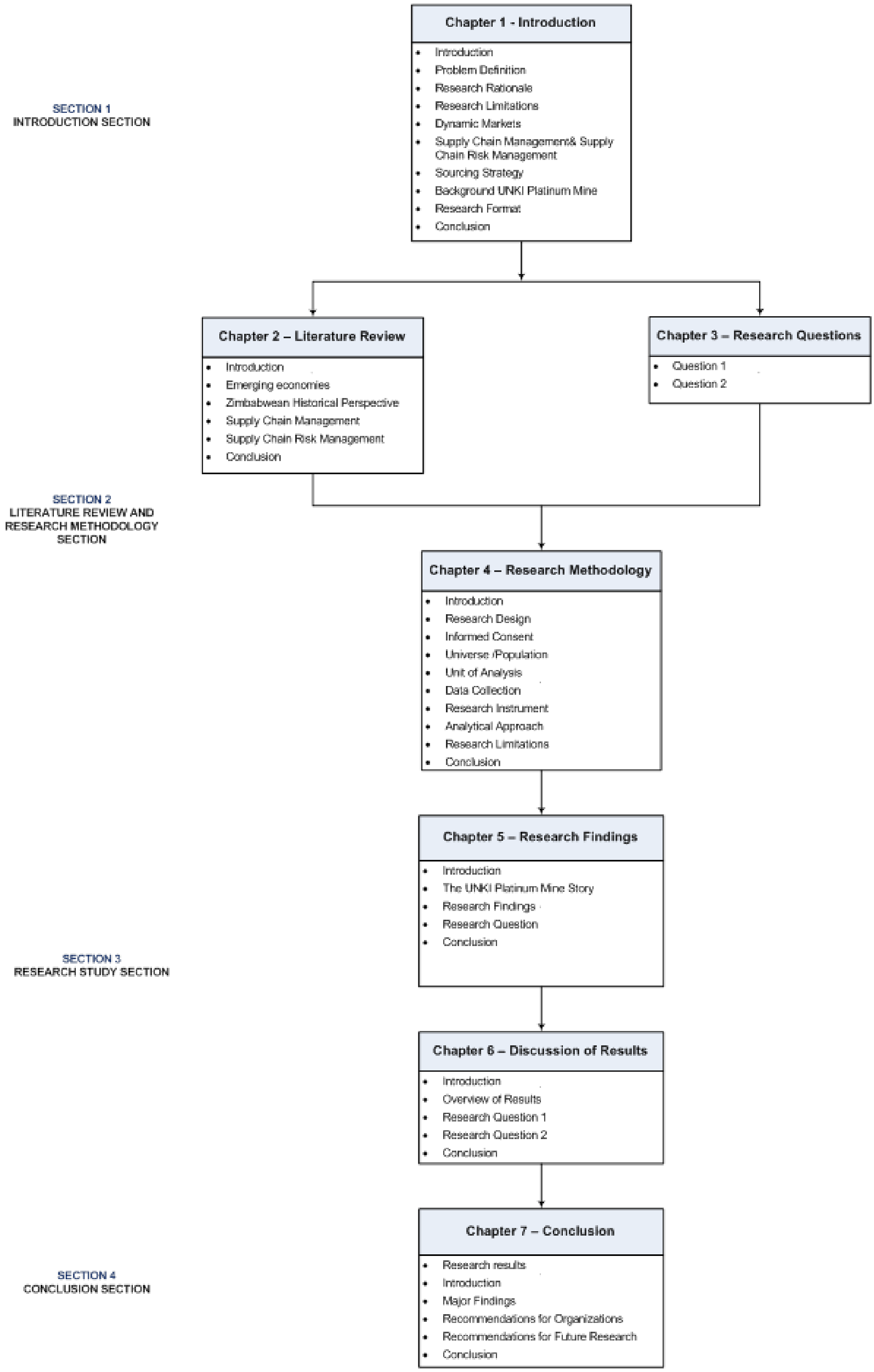
Chapter 1 is the introduction to the background and rationale of the research study. Furthermore this chapter presents the problem statement and objectives of conducting the research study.

Chapter 2 provides a literature review related to supply chain management supply chain risk management. Emerging economies with particular interest in Africa are further explored. The fundamental concepts that are related to the study are described as an integral part of this research paper. Related facets of the SCRM in Africa are investigated as they relate to the overall theme of the research topic.

Chapter 3 discusses the case study's research methodology and describes the sampling design, data collection, the assessment of trustworthiness and the data analysis methods. Chapter 4 comprehensively discusses the actual case study. Chapter 5 contains the research findings, which presents the analysis and findings of the study. Chapter 6 discusses the research findings connects these to literature review and theory. The synthesis includes knowledge from literature covering the direct work of study (i.e. as stated in the research rationale).

Chapter 7 reviews the achievement of the research objectives, provides recommendations for future research and conveys research conclusions. A summary of the research findings is derived and the implications of these findings for future research are expounded. Figure 1.2 depicts a summary of the research study layout; this emphasises the four sections in which the study has been grouped.

Figure 1.2: Detailed Research Study Roadmap



1.10 Conclusion

This chapter has provided an overview of the research by explaining the context for the research both of reasoning and layout. The main themes that are discussed in the latter chapters were also introduced in this chapter. It has set the objectives of the study, the approach taken to achieve these objectives and the roadmap to the perusal of the research paper itself.

Furthermore, it has set out the research rationale and limitation of the study, and has illustrated the roadmap to the review of the research study. Chapter 2 introduces and discusses the underlying fundamentals of emerging economies and supply chain risk management as a basis of Chapter 5.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

To survive in a risky business environment, it is imperative for companies to have appropriate supply chain risk management (SCRM) strategies. Colicchia and Strozzi (2012) suggested that the development of theory-building in SCRM has been influenced by the evolution characterizing the business environment. The trend towards globalisation has recently become only one of the drivers of supply chain vulnerability, and flexibility is perceived as the only way to improve supply chain resilience.

The literature review provides an overview of existing publications and researches in emerging markets in Africa in particular with a focus on SCRM. This chapter is organised into four main sections:

1. emerging economy: Africa
2. Zimbabwean contemporary history
3. supply chain management and lastly
4. supply chain risk management.

The first section provides an overview of the concept of emerging economies and emphasis on African market is provided. Furthermore, this section discusses the theoretical pillars that underpin the fundamentals of economic economies in the context of Africa in particular.

The second section discusses the various supply chain management definitions, whilst narrowing the focus of the research paper by briefly explaining the importance of both supply chain strategies and sourcing strategies. The final section of this chapter provides the most significant segment of the literature review by delivering theoretical insights into SCRM through reviewing the concept of risk and supply chain risk, as well as reviewing factors influencing the development of SCRM strategies and discussing the current SCRM frameworks in existence.

2.2 Emerging Economies

The world now recognises that Africa has taken a large economic step forward. A report by McKinsey Global Institute (2010) demonstrated that Africa's real GDP growth averaged 4.7% per annum between 2000 and 2010; almost double the rate of the preceding decade.

Therefore, this makes Africa the second fastest growing region—second only to Asia—and growing at the same rate as the Middle East. There are many other publications and reports supporting the view that Africa's prospects have changed.

Although emerging markets hold great potential, foreign firms operating in those markets are exposed to a comparatively higher level of risk when compared to developed markets. Foreign firms operating in emerging economies continue to be faced with comparatively high levels of environmental risks associated with the under-developed regulatory frameworks and greater levels of state-intervention characterising these economies (Henisz & Zelner, 2003, Luo, 2004, Wright, Filatotchev, Hoskisson, & Peng, 2005). Given these risks usually arise in relation to particular socio-political stakeholders, such as the various levels of the host-country government; success in these economies depends on foreign firms' interaction with such socio-political stakeholders as a means of reducing risk exposure (e.g. Hsieh, Rodrigues, & Child, 2010, Jimenez, 2010, Slangen & Tulder, 2009, Sun, Mellahi, & Thun, 2010).

Despite the heterogeneity of the countries labelled as emerging economies, comparatively higher levels of risk can be regarded as a common element of these markets. This is caused by the comparatively under-developed institutional frameworks and more rapid changes in the investment climate characterising emerging economies (Puck, Rogers, & Mohr, 2013). Furthermore, Puck, Rogers and Mohr (2013) suggested that subsidiaries in emerging markets face a particularly high level of risk, as the regulatory framework of emerging markets is often still developing and unlikely to be fully defined.

According to Wright, Filatotchev, Hoskisson and Peng (2005), strategy in emerging markets may be framed in four theoretical perspectives:

- institutional theory (IT),
- transactional cost theory (TCT),
- resource-based theory (RBT), and
- agency theory (AT)

This literature section concentrates on the institutional theory perspective, as it is postulated to be central to explaining any strategy development by MNC's. The reason for this is that in emerging economies, the influence of government and society on private business is significantly more prominent than in developed economies (Wright, Filatotchev, Hoskisson, & Peng, 2005). However, as markets mature TCT, RBT and AT are expected to explain the emerging market strategy better (Hoskisson, Eden, Lau, & Wright, 2000).

2.2.1 Institutional Theory

Institutional theory (IT) focuses on the role that political, social and economic systems surrounding corporations play in shaping organisational behaviour—processes and decision making (Hoskisson, Eden, Lau, & Wright, 2000). The existence of institutional voids in markets make it difficult for many MNCs to develop successful strategies in emerging markets, or require them to alter their strategy drastically to accommodate the adverse environment, and consider aspects of the strategy and operations that they would never have considered.

The presence of institutional voids in emerging markets and the absence of specialised mediators, regulatory systems and contract enforcing mechanisms make it difficult for many MNC's to develop successful strategies in emerging markets, or to require them to alter their strategies drastically to accommodate the adverse environment. The organisations that prove to be successful not only develop strategies that are different from those employed in developed countries, but also find innovative ways of implementing the strategies (Khanna & Palepu, 2010).

Conversely, institutions in an emerging economy may create an enabling environment for businesses by reducing uncertainty and establishing policies and structures that promote commercial activity. This view is aligned with Khanna and Palepu (2010) who explained that institutional voids are not only obstructions but they are also tangible opportunities for entrepreneurial foreign or domestic companies to build businesses based on filling these voids. This is evident in the fact that most emerging countries are in need of more development in physical infrastructure like telecommunication networks, power plants and roads.

In certain instances, growth of corporations is limited by institutional constraints, leading to the proposal by Peng and Heath (1996) that in emerging markets, network-based growth strategies are more applicable to Africa. In other instances, rather than to suppress growth, a dynamic institutional development may facilitate strategy by prompting adaptive firms to innovate around institutional constraints.

Khanna and Palepu (2010) further suggested that institutional development is a complex and lengthy process shaped by a country's history, political and social systems and culture, as discussed below:

2.2.1.1 Political and Social Systems

A country's political system affects its product, labour and capital markets. Corporations must identify the respective country's power centres, such as its bureaucracy, media, and civil society, and determine what checks and balances are in place (Kamau, 2011). It is also important to control the extent of decentralisation of the political system, and whether bureaucrats and politicians are separate from each other. The level of trust among the general population is also an important consideration when an organisation or supplier needs to raise money locally.

International trade promotes economic development and leads to peace and stability in a country. Bashir, Xu, Zaman, Akhmat and Ikram (2013) affirmed that political instability affects trade through its direct effect on income and prices and indirectly through its influence on investment in physical capital. This research moreover seeks to locate the type of dynamism that is uniquely associated with Zimbabwe and how UNKI has managed to thrive under Zimbabwean political conditions from a supply chain risk management perspective.

According to Hammett (2010) and Zeilig (2008), in the last two decades Zimbabwe has been going through a downturn in political and social conditions attributed to introduction of harsh legislation against democratic dissent by civic organisations, labour movements, opposition political movements and non-government organisations as they demanded a recognition of their rights as citizens. Hence, the country has been characterised by hyper-inflation, social haemorrhage and political conflict. Over the years and in the context of these worsening conditions, government popularity has continued to decline drastically (Sigauke, 2012).

Established sources of political risk include expropriation and nationalisation, war, civil disturbance and ethnic or religious tension. While expropriation and nationalisation have dominated in the past, today the focus is more on new, often rather subtle sources such as discriminatory action against foreign companies (owing to competing interests of local firms), corruption, organised crime and foreign policy sanctions (Brouthers, Gao, & McNicol, 2008; Sirr, Garvey, & Gallagher, 2012). Because these risks endanger firm performance and survival, firms are required to manage and reduce their exposure to these risks (Andersen, 2012).

Yang and Holzer (2006) noted that specific support for institutions depends on being aware of what the various political institutions actually do. Lyons (2013) asserted that this insight emphasises the importance of political knowledge among citizens and the relative visibility or salience of institutions to the general public. The research suggests that this also applicable to organisations.

Lyons (2013) proposed that citizens (or organisations) with higher levels of knowledge tend to be more trusting of political institutions, more supportive of democratic principles, are more politically active, and have an increased likelihood of expressing preferences related to the performance of political institutions.

Puck, Rogers and Mohr (2013) suggested that visibility affects the number, as well as the type, of actors in the general environment that are aware of the firm and that they are likely to exert increasing social pressure. As a result, organisations that are visible to a particular set of actors are better able to reduce their risks if their political strategies are geared towards this set of actors.

2.2.1.2 Culture

The expansion of globalisation has expanded the awareness of the global complexities involved in cross-cultural interactions. The reality of international business is often a confrontation with failures and difficulties that are a result of a lack of understanding of cultural background rather than that of market conditions (Podrug, 2011). According to Hofstede and Hofstede (2005) managers frequently view culture as the collective programming of the mind which distinguishes the member of one group or category of people from another. National cultural value systems influence patterns of thinking, feeling, and acting that may differ from one nation to another (Hofstede , 1980).

Adler (1991) emphasized the role of national culture by saying that decision-making style must be attached to the corresponding national culture, values and norms. Therefore, decision making is culturally contingent, and in each step of the decision-making process culture influences the ways managers and others make decisions. According to Lee, Han, Nam and Rho (2013) trust in nature is a multi-dimensional construct that incorporates credibility, benevolence, consistency, and stability. These dimensions result in partner satisfaction and the expectation of continuity of a relationship; they affect a long-term relationship by defining the level of relationship quality.

Moreover, Harris and Lyon (2013) suggested that trust is built by having information on others, prior experience of working together, norms of cooperation, and sanctions exerted on those who might transgress norms of behaviour. Paradoxically, Day, Fawcett, Fawcett and Magnan (2013) argued that high levels of trust-enabled relational embeddedness may also constrain relational advantage. This can result in inappropriaten trust with potential of leading to relational vulnerability and diminished performance.

Cultural differences can create challenges for MNCs doing business in other countries because of the variations of cultural patterns that are observed by people from different countries (Abugre, 2013). On the one hand, expatriates bring with them deep knowledge of not just how to do the job but also how the job function fits into the organisation as a whole. On the other hand, local appointees have a greater prospect of performing well when compared to expatriate employees, because of local cultural knowledge advantage and can be observed as a cost-cutting exercise (Forbes, 2013).

2.2.2 Doing Business in Emerging Africa

An attractiveness survey by Ernst & Young (2013) revealed that 86% of business leaders believe Africa's attractiveness as a place to do business continues to improve, and they rank Africa as the second most attractive regional investment destination in the world, after Asia. To the bewilderment of western investors, Africa currently is the fastest growing region in the world, after Asia. However, some might say that Africa is no different from other markets, but rather starting from a lower base and simply catching up quicker.

The Ernst & Young (2013) survey emphasised physical transport infrastructure as one of the main constraints of doing business in Africa. However, The World Bank (2012) Logistics Performance Index (LPI) illustrated that the quality of infrastructure as only one of several factors contributing to transport and logistics cost and inefficiencies. The World Bank (2012) LPI report analysis indicated that the inefficiency of customs and border management, for example, is as important a factor in the relative underperformance of many African countries.

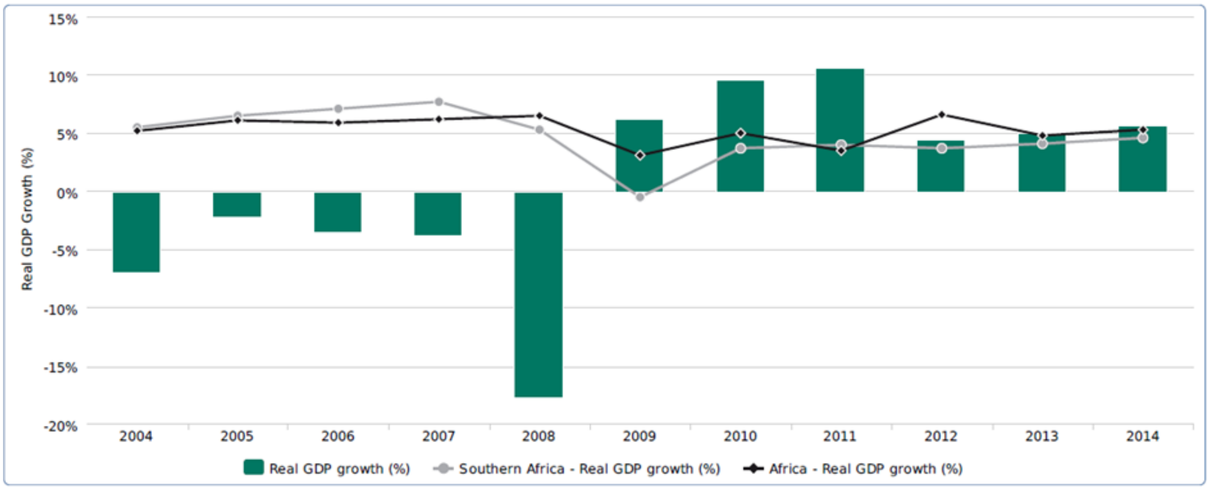
Doing business in Africa is not about doing business in one country but in 54 countries. Games (2012) argued that organisations seeking business in Africa have to look past the common challenges and opportunities and search for country-specific issues, otherwise replicating business strategies and practices from elsewhere leads to market failure.

South Africa is the single largest trading partner in Zimbabwe, accounting for at least 40% of total exports and 60% of total imports. The agriculture and mining sectors have led the economic recovery. The mining sector has become the leading export sector accounting for 64% of total exports. Strong external demand for primary commodities, particularly platinum and gold, underpinned higher production levels.

The anticipated recovery of mineral prices combined with on-going investment in the sector, as well as the expected resumption of production of nickel and asbestos in 2013, will result in the mining sector growing by a projected 17.1% in 2013. Although Zimbabwe liberalised all its current account transactions, there are still some administrative hurdles that inhibit the free flow of goods. The poor and deteriorating infrastructure also poses a major impediment to trade.

Despite political uncertainty, the Zimbabwean economy has continued to grow. Its economy recorded real growth of more than 9% per year in 2010-11, before slowing to 5% in 2012 (African Economic Outlook, 2012), as illustrated in Figure 2:1.

Figure 2.1: Real Zimbabwe GDP growth – Southern



According to the World Bank Ease of Doing Business (2013), Zimbabwe ranked 173 out of a total of 185 countries. This ranking was associated with the persistent downside risks in the Zimbabwean economy. Therefore it can be suggested that the country does not have a good political environment for business; even though UNKI Platinum mine has progressively performed well under these conditions. The research seeks to understand the drivers of UNKI Platinum mine success from a supply chain risk management perspective.

The hyperinflationary environment in Zimbabwe pushed the prices of not only the basic commodities beyond the rich of the rural people, but even the prices of materials and spare-parts. This was worsened by the fact that some of the industries that used to manufacture the spare parts locally shut down and they had to be imported from other countries.

The Import export manufacturer (2013) suggested that high rates of inflation often bring a variety of problems that influence the way an MNE operates. The most important ones are:

a) accelerated depreciation or devaluation of the local currency
b) tighter capital controls and import restrictions,
c) scarcer credit and higher borrowing costs,
d) a buildup of accounts receivable and lengthening of collection periods,
e) price controls to help bring inflation under control,
f) economic and political chaos and labor unrest,
g) capital flight,
h) and greater difficulty in evaluating the performance of foreign subsidiaries

2.3 **Zimbabwe's Recent History**

2.3.1 Historical Background

Zimbabwe, known as Southern Rhodesia prior to independence in 1965, traces its independence to the armed struggles of the 1960s and 1970s against settler minority rule. The Rhodesian Police had been the dominant player in Rhodesia's security sector. It operated as both a traditional police force against criminals, and also trained paramilitary forces capable of army-style operations.

When the Federation of Nyasaland (what is now modern-day Malawi) and the Rhodesians (Zambia & Zimbabwe) were dissolved in 1963 (Rosberg, 1956), it was Southern Rhodesia that inherited the federation's armoury, to which it had vastly contributed. It was this munitions windfall and the start of the Chimurenga was liberated in the 1960s that then forced the Rhodesians to create a large standing army for the first time.

In the meantime, the Zimbabwean African National Liberation Army (ZANLA) and Zimbabwe People's Revolutionary Army (ZIPRA), the military wings of the Zimbabwe African National Union (ZANU) and Zimbabwe People's African Union (ZAPU) nationalist parties, respectively, had, after a shaky start, emerged as formidable guerrilla forces that achieved a qualitative equilibrium to bolster their quantitative superiority over the Rhodesian security forces (Besada, 2011).

2.3.2 Zimbabwe 1980 – 1997

Following the overwhelming victory of ZANU in the 1980 elections, the new government called for reconciliation and integration of military and paramilitary personnel, in the hopes of avoiding any coups (Besada, 2011). Zimbabwe's security sector is an integral part of the country's political, ideological, economic, and military life.

The Operation Merger included the fusion of ZANLA, ZIPRA, and the Reporters Sans Frontieres (RSF) and Zimbabwe Defence Forces (ZDF). It was highly successful because of the political determination on all sides to make it work, and also because all three armies were already professional forces despite propaganda claims made by the Rhodesians throughout the war that the guerrillas were "terrorists" who invariably ran away at the first shot (Besada, 2011).

The first violent surge was from 1981 to 1987 with the Gukuranhundi war in Matabeleland (Raftopoulos & Savage, 2004), and the simultaneous overlap with the ZNA deployment in Mozambique (Holden, 1995) to protect rail and road links to Mozambique ports. These events strengthened the re-politicisation of the military and power of the security sector in the nation's politics.

2.3.3 Zimbabwe 1997 – 2008

According to Besada (2011), this period has seen the Zimbabwean state develop an approximation of South Africa's apartheid-era total strategy to counter a perceived total onslaught from internal and external opposition. Due to the close relationship between Zimbabwean military and the state, the role of the military shifted to defend national sovereignty to ensure regime survival by denying the Movement for Democratic Change (MDC) access to state power, amongst other strategies (Besada, 2011).

This resulted in the systematic politicisation of the security sector and the militarisation of Zimbabwe's political economy. Zimbabwe has been categorised as an operational zone, with the struggle for the survival of the state a military operation in itself (Chitiyo & Rupiya, 2008).

Since 2000, and as continuation of guerrilla war strategy, Zimbabwe has been divided into "liberated zones" (the ZANU-PF heartland of Mashonaland, Masvingo, and parts of Manicaland); "contested zones" (the urban areas) and "enemy zones" (Bulawayo and Matabeleland, which have always been hostile to ZANU-PF) (Besada, 2011). The post-

2000 strategy has been to consolidate ZANU-PF's hold on the liberated zones, retake the contested zones and disrupt the enemy's hold in the enemy zone.

The latter half of 2008 saw the MDC and ZANU-PF locked in a deadly contest of political gamesmanship. For ZANU-PF, the continued stalemate risked heightening disaffection with military, which were also affected by the economic collapse. According to Zimbabwe's Central Statistical Office (CSO), in 2008 the country experienced its worst hyperinflation rate of 231.2%; however the International Monetary Fund (IMF) estimated the rate to be 486billion% as of September 2008 (International Monetary Fund, March, 23, 2009).

2.3.4 Zimbabwe 2009–present

Once one of Sub-Saharan Africa's most prosperous and promising states, Zimbabwe has endured a traumatic decade, socially and economically, under a government led by President Robert Mugabe. The country was formerly the envy of its neighbours for its abundant mineral deposits, thriving agricultural sector, and one of the continent's most skilled and educated workforces, according to Besada (2011). Zimbabwe has since become politically unstable and is viewed as an economic disappointment of unprecedented proportions.

Time and again, Zimbabwe's military and political nexus has proved to be highly adaptive and resilient (Besada, 2011). Alternatively in 2009, the Zimbabwean government adopted a dollarisation economy to the Zimbabwe currency. The Zimbabwean government is currently faced with competing issues, ranging from the breakdown of public services and the power sector, to decaying infrastructure, and the near-collapse of the agricultural sector.

2.3.5 Business in Zimbabwe: Challenges and Threats

Despite the direct threat that politics has posed to the bottom line and potentially to their reputations, most companies that already invested in Zimbabwe in 2000 remained in the country and endured a most challenging operating environment (Besada, 2011). Group operations were forced to ring fence their Zimbabwean operations in order to keep the hyperinflationary accounting off the books. Listed multinationals struggled to pay dividends from Zimbabwe because foreign currency restrictions and profits were generally stored in the Zimbabwe Stock Exchange (ZSE). There was an introduction of price controls in the middle of 2007 and this almost destroyed what was left of the formal economy.

According to Besada (2011), several consequences resulted from this move from the state. Significantly, shelves remained empty for eighteen months after price controls were introduced, and continued to remain empty after most of the controls were reversed. When goods eventually returned to the shelves in late 2008, most were imported; this resulted in closing the gaps for local manufacturers who had become uncompetitive.

Trust between government and business also broke down and was replaced by fear and resentment. This legacy of mistrust trickled into the new Zimbabwe unity government and the current government. Particular interest is drawn to the indigenisation of business which potentially has major implications for foreign investors.

2.4 **Supply Chain Management**

The area of Supply Chain Management (SCM) has gained attention and interest since the early 1980s, resulting in various definitions. According to Waters (2011), the SCM term emerged from a combination of formerly distinct disciplines, each of these disciplines bringing its own legacy of terms and ideas. SCM has widely been studied and defined by various experts, some of which are Trkman and McCormack (2009), who suggested that it entails proactive relationship formation and integration among various tiers in the chain.

Christopher (2011) defined SCM as the management of upstream and downstream relationships with suppliers and customers in order to deliver superior customer value at less cost to the supply as a whole. It is clear from this definition that SCM incorporates multiple processes and activities from suppliers to customers. However, for purposes of the research this definition was used throughout this research, as it is directly linked with upstream relationships with suppliers.

Based on the definitions by various researchers, it is clear that SCM has been a focus area that has seen tremendous evolution during the last two decades. This evolution has been perceived regarding various issues that include simulating and evaluating the term. These issues are mainly linked to designing, planning and co-ordinating the material, information, and money flows across the supply chains. The study argued that the evolution may have also contributed to the increase in uncertainty and dynamism in the business environment.

Supply chains in the modern world seem to have more complicated networks that expand over longer distances than before, therefore making them more vulnerable to a variety of risks. With the view to improved management of these networks, supply organisations pursue a more coordinated view of worldwide supply operations, called global sourcing or supply (Trent & Robert, 2010). Global supply chain, conversely, requires highly coordinated flows of goods, services, information and money within and across national boundaries (Mentzer, et al., 2001).

The literature referred to above clarifies that SCM is concerned with managing all the resources that go toward meeting the customer demand for a product once it is in production. These resources include the suppliers that provide goods and services used to create a product and the manufacturing facilities for making the product. Tang (2006b) asserted that sourcing has a direct impact on the mitigation of supply chain risks. On the contrary, according to Micheli, Cagno and Zorzini (2008), sourcing and supply chain risk are generally studied separately.

There are some factors that drive organisations toward extensive use of Supply Chain Risk Management, however there is not enough information provided about the effort required to incorporate these factors within the sourcing strategy. The following two sub-sections are introductory to the main body of the literature; moreover, they assist with narrowing down the focus of the reseach.

2.4.1 Supply Chain Strategy

Supply chain strategy is broad and it defines how the supply chain should operate in order to compete. Supply chain strategy is an iterative process that evaluates the cost benefit trade-offs of operational components (Happek, 2005). In the context of the research, corporate and supply strategies are viewed as two separate functional processes as they represent different entities in an organisational setting; however they are related and even interdependent.

Corporate strategy simply involves leveraging the core competencies of the organisation to achieve a defined high-level goal or objective. In contrast, supply chain strategy constitutes the actual operations of that organisation and the extended supply chain to meet a specific supply chain objective (Happek, 2005). Supply chain strategy should always support the intent of the corporate strategy.

Organisations require strategic actions to successfully respond to competition within their supply chain networks. Developing a strategy under these circumstances may not be straightforward and must proceed through a series of systematic analyses. Strategy, structure, and environment are closely linked (Hall & Saias, 1980). A firm's strategy depends on its external network environment and structure.

The concept of strategy for the supply chain is a paradox. On the one hand, the supply chain is organized around a focal organisation and serves to execute a supply strategy for delivering a product to a customer. On the other hand, the supply chain can be the central product providing elements for customer satisfaction, where the focal product itself becomes a commodity. Therefore, it seems the two contexts require different orientations.

According to Skjott-Larsen, Schary, Mikkola and Kotzab (2007), strategy in supply chain takes on both external and internal aspects. The external aspects of strategy are clear: supply chain versus other supply chains and meeting customer requirements. Internal strategy takes place within the network. This research concurs that the strategy can take place in external and internal aspects. However not all researchers agree that the external aspects are clear, hence this research investigates how the risks associated to sourcing are handled in organisations moving into Africa.

2.4.2 Sourcing Strategy

Sourcing is considered a central dimension to determine the organisations' competitive cost position, it is for this reason that the research focuses on the sourcing area of SCM. Puto, Patton and King (1985) also identified supplier selection as an important risk-handling strategy. The need to source components, sub-assemblies, and even finished goods from all over the world has been identified as a pervasive influence on purchasing strategy (Monczka, Trent, & Handfield, 2005) and corporate strategy in general at least since the 1980s (Porter, 1990;Kotabe & Murray, 2004). Strategic purchasing, or sourcing, is part of the purchasing function that aims to select and manage the external suppliers in line with the strategic objectives and goals of the firm (Van Weele, 2010). For purposes of this research, the terms *purchasing*, *supplier selection* and *sourcing* are used interchangeably.

Once the need to penetrate across borders has been established, Porter (1990) proposed that the sourcing manager must determine what factors to consider in choosing a region and, eventually, a specific supplier. Porter (1990) furthermore, laid out a comprehensive model of location advantages. He suggested that in looking for successful suppliers, "one might consider the factor conditions of the supplier's location, the demand conditions in the supplier's country, the supporting industries, and the institutional climate of the supplier's country." Kotabe and Murray (2004) specifically addressed the issues that have to be considered when global sourcing is undertaken:

> "In developing viable sourcing strategies on a global scale, companies must consider not only manufacturing costs, the costs of various resources, and

exchange rate fluctuations, but also availability of infrastructure (including transportation, communications, and energy), industrial and cultural environments, the ease of working with foreign host governments, and so on." p11

Sourcing thus requires effective management of both external suppliers and internal stakeholders, and occurs as a cross-functional, boundary-spanning activity (Handfield, Petersen, Cousins, & Lawson, 2009). This view is further supported by Driedonks, Gevers andvan Weele (2013) as they added that effective management of sourcing teams is a key lever for increasing the purchasing function's contribution to company profitability. This research goes a step further by suggesting that the measure of the sourcing team's effectiveness can be seen by how they select and manage external suppliers.

Supply chain partners must navigate an increasingly complex array of communication and co-ordination issues to maintain effective relationships with contracting, manufacturing, delivery, storage, and customer services. These issues become more obvious in organisations, because according to Zsidisin and Melnyk (2005), supply chains are fragile, in particular due to environmental disruptions beyond their control. Therefore, supply management becomes critical because there is an increasing dependence on suppliers; hence organisations are highly exposed to supply risks (Micheli, Cagno, & Zorzini, 2008).

Fang, Zhao, Fransoo and Woensel (2013) suggested the goals of strategic sourcing should include reducing spending, managing supply risk, and complying with industry standards and government regulations. Furthermore, they argued that the goal of sourcing strategy development is to select suppliers with services, materials, components, or subassemblies that help minimize the cost and the risks to make a successful product.

Puto *et al.* (1985) argued that the necessary conditions for the adoption of effective risk-reducing strategies include loyalty to existing suppliers, the characteristics of the buying situation and the buyer's perception of the procurement problem. With the advent of worldwide sourcing, as well as the overall prevalence of outsourcing, organisations now search for a variety of capabilities from their suppliers, and purchasing often takes the lead in the that search (Holcomb & Hitt, 2007).

2.5 **Supply Chain Risk Management**

Due to the network complexity caused by the global supply process, an enormous range of inherent risks, ranging from minor irritation of delays through to the destruction of an entire chain, are expected. If poorly handled, disruptions in supply chain (SC) could result in exorbitant delays causing poor service levels and high cost (Blackhurst, Craighead, Elkins, & Handfield, 2005). Since every organisation strives for success and uninterrupted operations, efficient supply chain risk management is crucial.

According to Colicchia and Strozzi (2012), risk and risk management have gained increasing attention in the supply chain context, both from the practitioners' perspectives and as a research area due to the degree of uncertainty and complexity that characterises modern supply chains. This is particularly so in the African markets. There are various definitions of risk in SCRM literature. The main reason for various definitions is that the field of SCRM is relatively new and rather disorganised (Trkman & McCormack, 2009).

Shorter lead times and a recent series of crises and catastrophes (e.g. the Mozambique flooding of January 2013, the terrorist attacks in Kenya in July and September 2012, and the July 2012 blackout in New Delhi India) are but a few topical reminders that the business environment is unpredictable and increasingly unstable. Colicchia and Strozzi (2012) further agreed that disruption risks, lying in different processes of the supply chain as well as in the external environment, have begun to receive increased attention.

Hendricks and Singhal (2005) established that not only can the failure to manage supply chain risks effectively lead to a sharp downturn in an organisation's share price, which can be slow to recover, but it can also generate conflict amongst the organisation's stakeholders. They found that, on average, major supply chain disruptions can reduce the stock market value of a company by 10%. Indeed, moving beyond supply chain risks and analysing the risks faced by organisations in general, Hood and Young (2005) maintained that many organisations may have gone out of business because of their failure to adopt effective risk management strategies.

Supply chain risk management (SCRM) is the process of systematically identifying, analysing and dealing with risks to supply chains (Waters, 2011). Tang (2006b) defined SCRM as ''the management of supply chain risk through coordination or collaboration among the supply chain partners so as to ensure profitability and continuity.'' Gaudenzi and Borghesi (2006) described SCRM as "a process that supports the achievement of supply chain management objectives" through the whole supply chain, not only in a single company.

However, the most common classification of SCRM is that of Pujawan and Geraldin (2009), which is "SCRM aims to reduce the probability of risk events occurring and to increase resilience, that is, the capability to recover from a disruption." It seems SCRM has become a necessity for many firms. Globalisation, improved infrastructure and information technology has led supply chains to become longer and more complex, resulting in higher supply chain vulnerability (Tang, 2006a, 2006b; Aydin, Babich, Beil, & Yang, 2009), selecting suppliers with the experience of operating in this vulnerability is pivotal.

2.5.1 Risk and Supply Chain Risk

Currently, organisations cannot operate in completely secure environments without risk derived from supply chains. This is mainly to due to globalisation and global sourcing. Risks in supply chains represent one of the significantbusiness issues today.Considering that risk management is applied in many different fields of science and engineering practice (Olsson, 2007; Alhawari, Karadsheh, Talet, & Mansour, 2012), there are a large number of different definitions.

In particular, the distinction between risk and uncertainty is not always clear in supply chain operations. Tang and Musa (2011) interpreted risk as unreliable and uncertain resources creating supply chain interruption, whereas uncertainty is defined as matching risk between supply and demand in supply chain processes. For the purposes of this research, these terms, namely risk and uncertainty, are used interchangeably.

Waters (2011) defined risk management as the process for systematically identifying, analysing and responding to risks throughout an organization. All operations involve some sort of risk and these risks need to be managed. The focus of this paper regards risks associated with supply chain operations and how these are managed in the case of UNKI Platinum mine.

Risk management of a SC has a considerable influence on the stability of dynamic cooperation among SC partners and is therefore very important for the performance of the SC operations as a whole (Waters, 2011). The unpredictability of the business environment, variable consumer demands, actions by competitors, along with market dynamics and continuous improvement initiatives within organisations imply that the supply chain never actually reaches a stable steady state (Braithwaite and Wilding, 2005; Haywood and Peck, 2004). These parameters of uncertainty have the ability to propagate through a supply chain network.

Managing risk in SC's seems to have emerged as an imperative topic in supply chain management. The topic derives its prominence due to several industry trends that are currently in place. These include an increase in strategic outsourcing by firms, globalisations of markets, increasing reliance on suppliers for specialised capabilities and innovation, reliance on supply networks for competitive advantage, and emergence of information technologies that make it possible to control and coordinate extended supply chains (Narasimhan & Talluri, 2009).

Supply chain risk is defined by Juttner (2003) as "the variation in the distribution of possible supply chain outcomes, their likelihoods, and their subjective values". Supply risk or the probability of supply disruptions is emerging as a strategic challenge to supply chain management. The ability to identify which supplier has the greater potential of a disruption is a critical first step in managing the frequency and impact of these disruptions that often significantly impact on the supply chain. Therefore, the research seeks to understand how UNKI Platinum mine identified which suppliers had greater potential of disrupting the SC.

Supply chain risks can have significant impact on the organisations that fail to protect against them. However, effective and efficient management of supply risks can reduce the negative impact (Fang, Zhao, Fransoo, & Woensel, 2013). Tomlin (2006) distinguished three kinds of strategies to manage supply risks:

1. Mitigation strategies are those, in which an organisation takes some action before a risk and so incurs the cost of the action regardless of whether a risk occurs, such as increasing inventory or setting up alternative sources.
2. Contingency strategies are those in which an organisation takes an action when a risk occurs, such as contingent sourcing from backup suppliers.
3. Acceptance strategies are used when the cost of dealing with uncertainty through mitigation and contingency strategies outweighs the losses of accepting the consequence of the risks (Fang, Zhao, Fransoo, & Woensel, 2013).

The research seeks to understand factors driving sourcing decisions at UNKI Platinum mine. Moreover, one of the objectives is to understand how the external environment influences the development of SCRM strategies.

2.5.2 Factors influencing supply chain risk management strategy

Modern supply chains are spread all over the world, as a result of organisations penetrating new markets in search for cost reduction opportunities. According to Szuster (2010) globalisation, off-shoring, outsourcing and pressure on cost reduction influence on the increasing complexity of supply chains and lead to higher risk. Off-shoring or global sourcing often require longer lead times for products or materials delivery, influencing the time which is needed to move products from manufacturing sites to a final destination.

Organisations operating globally face many exceptional situations. Delays in transport, losses during delivery, export barriers, bureaucracy, legal contract enforcement, language barriers and corruption are all parts of the challenges faced when dealing with globally sourced goods and services. This raises the prominence of flexible logistics systems. Svensson (2000) suggested that the higher the number of elements sourced from emerging countries, the more complex the logistics structures, and therefore the less familiar the environment enhances the reality of risk. This may concern supplies, deliveries, and manufacturing and transportation components in the supply chain. Organisations that source from distant countries have to implement risk management systems.

Closely interconnected to the concept of risk is the notion of supply chain vulnerability, defined as the “existence of random disturbances that lead to deviations in the supply chain from normal, expected or planned activities, all of which cause negative effects or consequences” (Svensson, 2000). The strong correlation between the two concepts was confirmed by Christopher and Peck (2004). Vulnerabilities are more pertinent to organisations that operate globally, more so in Africa, and are interdependent on others, for example outsourcers. In such cases sources of disturbances often lie outside of the scope of control of the particular organisation. Consequently, supply chains are becoming more complex.

It can also be argued that environmental uncertainty increases the significance of SCM. While many suppliers can perform well in a stable environment,fewer can perform well in a more turbulentone. Hsu (2005) and Trkman and McCormack (2009) suggested that a supplier in a non-turbulent market can operate with a flawed strategy or structure and still achieve an average performance while such a supplier in a turbulent environment could pose a significant risk to the whole chain.

2.5.3 Supply chain risk management frameworks

Jereb, Cvahte and Rosi (2012) developed a model that captures and describes risks in an organisation and its supply chain. It is in accordance with the general risk management and supply chain security standards, the ISO 31000 and ISO 28000 families. The model described by Jereb, Cvahte and Rosi (2012) focused on the risks itself by defining them by different fundamental dimensions, so that risk management is simplified and can be undertaken in every supply chain as well as in the organisations within the supply chains.

There are several categorisations of SCRM methodologies. Most of these are focused on the prediction of disruptive events instead of the causes of uncertainties. Trkman and

McCormack (2009) concurred that most current SCRM strategies only emphasise disruptive events (such as bankrupcy, natural disaster or the possibility of terrorist attact), whereas continuous changes due to turbulent environment (i.e. a change in customer tastes, technology shifts, cultural impact and even supplier priorities) are ignored.

It seems that there is a need for organisations to have appropriate SCRM strategies to manage the risks and disruptions, so that they can achieve the necessary level of dexterity for effective supply chain management. Zsidisin and Ritchie (2008) and Juttner (2005) provided comprehensive reviews of the literature and models used for an effective SCRM. However, this research challenges the applicability of the current frameworks on African market supply chains. This research seeks to identify elements that assist with the development of a suitable framework for Africa. The subsequent literature examines the existing supply chain risk management models.

2.5.3.1 Multi-Agent System

The Multi-Agent System (MAS) framework was proposed by Giannakis and Louis (2011) as the conceptual basis for the design of a DSS that facilitates collaborative disruption risk management in supply chains operations. The framework supports the fulfilment of production, event and disruption riskmanagement constituted by coordination, communication and task agents and draws on principles and theories of SCM, agent based simulation and computer science.

The proposed agent based model builds the foundations for effective disruptions management under a collaborative basis, through the facilitation of software agents and through the utilisation ofprevious successful corrective actions as cases for future decisions. It can be argued that for network partners to entirely be collaborative with each other, the prerequisite would be that the supply chain must be mature. However, the fact that there has been an influx of organisations entering African in the last decade (McKinsey Global Institute, 2010), could suggest that their supply chains would still be fragile and immature.

The benefits of this framework include having the potential to proactively mitigate a series of risks at the operational and tactical levels of SCM, without perceiving risk management as an individual process from supply chain actors. It also proposes and executes rectification strategies for disruptive situations, offering an integrated decision making framework for SCM (Giannakis & Louis, 2011).

At the operational level, it deals with risks associated with an order fulfilment that arise from a supply chain network (e.g. manufacturer, suppliers) concerning the sourcing of sub-components, manufacturing and delivery of products. At the tactical level, it can significantly facilitate planning of orders, thereby providing substantial information for planning orders (Bodendorf & Zimmermann, 2005).

One of the most notible benefits is that it can lead to more effective SCRM and the synchronization of supply chain processes, which in turn can ameliorate the impacts of the bullwhip effect. The research, however, contends its applicability in the African context. This framework seems to require extensive IT infrastructural systems to be in place in order to effectively reap its intended rewards. As discussed, markets in Africa have widespread institutional and infractural voids, therefore this limits the implementation of this proposed framework.

2.5.3.2 Analytic Hierarchy Process

As proposed by Gaudenzi and Borghesi (2006), this analytic hierarchy process (AHP) model for assessing risk in supply chains, supports managers in prioritising the supply chain objectives, identifying risk indicators and assessing the potential impact of negative events and the cause-effects relationships along the chain. By involving AHP, management defines a decision problem and dissects it into a multi-level sequence of decision attributes.

The AHP method supports managers in a broad range of decisions and complex problems that include supplier selection decisions, facility location decisions, forecasting, risks and opportunities modelling, choice of technology, plan and product design (Fariborz, Burton, & Banerjee, 1989). The model appears to be useful in creating awareness of supply chain risk factors.

Further research about this method reveals that it is best suited for evaluating and prioritising supply chain risks instead of holistically managing the risks. Therefore, this suggests that this model cannot be used in insolation from other more comprehensive SCRM models.

2.5.3.3 The House of Risk

Developed by Pujawan and Geraldin (2009), “the house of risk” combines the basic ideas of two well-known tools: the house of quality of the quality function deployment and the Failure Mode and Effect Analysis (FMEA). The framework consists of two deployment stages; House of Risk (HOR)1 and HOR 2. HOR1 is used to rank each risk agent based on their aggregate risk potentials. HOR2 is intended to prioritise the proactive actions that the company should pursue to maximize the cost-effectiveness of the effort in dealing with the selected risk agents in HOR1.

This model is based on the notion that a proactive SCRM should attempt to focus on preventive actions, i.e. reducing the probability of risk agents to occur (Pujawan & Geraldin, 2009). Reducing occurrence of the risk agents would typically prevent some of the risk events fromoccuring. In these cases, it is necessary to identify the risk events and the associated risk agents. Unlike in the FMEA model where both the probability of occurrence and the degree of severity are associated with the risk events, the house of risk model assigns the probability to the risk agent and the severity to the risk event.

The proposed model isdifferent from the previous models in the sense that it selects the risk agents having large aggregate risk potentials, i.e. those with high probability of occurring and causing many risk events with severe impacts. However, the disadvantage ofthis model is that it ignores the dependence between risk events, whereas in reality such dependencies could happen. Furthermore, the intensity of this model could suggest that it would need highly specialised teams to be in place to ensure appropriate implementation. The research considers this to be a limitation for effective implementation in Africa, however certain elements may be used in the development of appropriate SCRM frameworks specific to the African context.

2.5.3.4 The Delphi-based Risk Analysis

Markmann, Darkow and von der Gracht (2012) tested the applicability of the Delphi-based risk analysis on supply chain security and concluded that Delphi can assist in reducing uncertainty and thereby the organisation’s susceptibility and vulnerability to various kinds of disruptions. Furthermore, this conclusion demonstrates that the Delphi method stimulates and facilitates an extensive communication process by providingdirect and reasonable feedback.

However, this research argued that this method of risk management may not be suitable for the SSA market as the identification of weak signals and wildcards, as well as the development of the extreme scenarios, is still dependent on the experience of the analyst. Furthermore, there is not enough evidence to indicate potential linkages of Delphi in the entire risk management process, therefore it might not be advisable to use the Delphi analysis as a supply chain riskmanagement; however it is acknowledged that certain elements of this tool may be used in the development of a framework.

2.5.3.5 Supply Chain Risk Management Conceptual Framework

According to Trkman and McCormack (2009), SCRM approaches seek to measure either supplier attributes or the supply chain structure use the findings to compare suppliers and predict disruption. Hence, they proposed a model with an ability to identify which supplier has greater potential of a disruption as a critical first step in managing the frequency and impact of these disruptions on the supply chain.

This model is unique because this approach to the assessment and classification of suppliers is based on suppliers' attributes, performances and supply chain characteristics, while it is also modified by factors in the suppliers' specific environment. The research however argued that in as much as this model has the ability to identify whether the supplier can absorb the shocks and turbulence, much attention needs to be provided to environments such as the SSA market, based on the fact that many multinational corporations are increasingly penetrating these markets.

2.6 **Conclusion**

Foreign organisations operating in emerging economies are faced with high levels of environment risks which are related to the under-developed institutions such as infrastructure and regulatory frameworks. The literature reveals that political and social systems and culture play an integral role in the understanding of institutional theory. Moreover, institutional voids may not always have a negative impact on an emerging economy; however they may create an enabling environment for businesses.

It is clear from the literature reviewed that there is an abundance of information concerning supply chain risk management, however there seems to be limited information in the African context. The literature on emerging economies in Africa seems to suggest that the landscape of Africa is different from other emerging economies and developed economies; therefore the research concludes that the supply chain risks are different. Invariably, different SCRM strategies would need to be employed.

This chapter has provided the concepts which are fundamental not only to the analysis phase, but to the study in general. Some concepts were listed, while others where elaborated on in more detail. The next two chapters discuss the research questions and research methodology followed to carry out the study

CHAPTER 3: RESEARCH QUESTIONS

The selection of UNKI Platinum mine as a case study was made in order to facilitate further research into the interaction between corporate strategy and supply chain risk management strategy and the institutional environmental in Africa, through the lens of a single organisation.

The two main research questions are as follows:

- Research Question 1: Are the strategies for penetrating Africa much different to conventional entry strategies around the world? How do they differ in these environments with starkly distinctive institutions?

The foundation of this question is institutional theory. In this study, this question sought to investigate to understand how organisations alter strategies when entering into Africa. Moreover, how certain institutional environments /frameworks influence strategy development is analysed.

- Research Question 2: Presuming alternative strategic approaches in Africa are adopted in general, what supply chain risk management strategies do organisations adopt in new Sub-Saharan African markets?

Acknowledging that most successful MNCs owe their success to an ability to adapt their strategy and operations to local conditions, the potential associated supply chain risks needs to be managed in order to support the overall corporate strategy. This question thus sought to understand the supply chain risk management strategic elements that need to be considered when entering African markets, through lessons learnt by the UNKI Platinum mine SC leadership team. Furthermore, this question also sought to understand the interaction between these supply chain risk management elements and the institutional environment of Africa in particular.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

The purpose of this chapter is to describe the methodology undertaken to perform the research and analyse the results. It commences with a justification of the research design, including the approach and method, and a description of the sampling strategy. The research instrument is provided, along with a description of the process that was followed when undertaking to complete the interviews, gather meta-data and analyse the results. The limitations of the research are also discussed. The detailed results and analysis are contained in subsequent chapters.

4.2 Research Method

This research has been conducted as a single case study; a case study is defined by Yin (2009) as:

> "…an empirical enquiry that investigates a contemporary phenomenon within its real life context, when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence is used." p13

As a research methodology, the case study approach can be used in a variety of situations and is used to contribute to the knowledge pool of individual, group, organisational, social, political and related phenomena (Yin, 2009). This approach is distinctively empirical in nature. The case study methodology manages situations where there are many more variables of interest than there are data points, where there are multiple sources of information that need to be triangulated in order to converge and where there are existing theoretical propositions to guide the data collection and analysis process.

The case study is single in nature as only one subject has been selected. This research can be considered "instrumental," in that the case study is being conducted to investigate a phenomenon of interest, being how SCRM strategies are developed and implemented in Africa (Rosenberg & Yates, 2007). The case study approach is an appropriate methodology to answer the research questions in that a holistic view and analysis of the event is required in order to unearth how SCRM strategies are developed and executed in Africa (Verschuren, 2003; Yin, 2009). The holistic design is appropriate when the relevant underlying theory of the case is of holistic nature (Yin, 2009).

Case studies are preferred when the researcher's main priority is to answer the "how" or "why" research questions (Jones, McFonnell, & Read, 2001), or when the researcher has little control over events and when the focus is on a contemporary phenomenon within a real-life context (Yin, 2009). The research is exploratory in nature, utilising qualitative primary data sourced through a desk review of the case study subject, through documentation and data collected from the subject and followed by a series of semi-structured interviews (refer to Appendix A for research design).

A case study, by helping to simplify a scenario, assists in investigating complex social units of multiple variables of potential importance to understanding the phenomenon. Being heuristic, a case study illuminates a reader's understanding of the phenomenon under study, whilst it is also particularistic in being able to suggest to a reader what to do in a similar situation (Merriam, 2010). Being descriptive, a case study allows for a "rich, thick description of the phenomenon under study" (Merriam, 2010).

A case study approach was chosen as it is well suited for learning about a little understood or known subject (Leedy & Ormrod, 2010). A case study strives to understand why a set of decisions were taken and what their results were (Schramm 1971 in Yin, 2009) whilst being an illuminating educational practice (Merriam, 2010).

Furthermore, because there is not enough information on the exact factors that need to be considered with developing supply chain risk management strategies specifically for the in African market, an exploratory case study was used. According to Hussey and Hussey (1997), case study methodology enables an extensive examination of a single instance of a phenomenon of interest and is often described as exploratory research. The basic aim of using a case study approach in the proposed research is to generate theory pertaining to supply chain risk in the SSA context.

The event selected is a real life phenomenon, recent to the subject that took place outside of the control of the researcher, and required a variety of data sources to determine how and why the subject achieved the success that they have (Yin, 1994). The research is exploratory in nature, utilising qualitative primary data sourced through a desk review of the case study subject, through documentation and data collected from the subject and followed up by a series of semi-structured interviews. A qualitative design was therefore the correct method to undertake whilst striving to understand the supply chain risk management strategies employed by UNKI when entering into Zimbabwe.

The nature of the data required was not fully understood at the inception of the research project. A case study's research design can remain flexible throughout the data collection period (Jones, McFonnell, & Read, 2000).

4.3 **Informed Consent**

The General Manager of the subject company was requested via email for the firm to participate in the research. A letter (refer to Appendix B) disbursing the intent of the research, the methodology and the requirements was then accepted and signed by the subject and submitted for ethical clearance.

All data that was collected has been electronically stored, while maintaining the confidentiality of the company sensitive information. Interviewees were requested to consent to their participation in the research (participation was therefore voluntary); to consent to the interview being recorded.

4.4 **Population**

The research was largely confined to UNKI Platinum mine. It focussed on Anglo American Platinum's strategic decisions for venturing into Zimbabwe, Africa. But more significantly, the study hoped to draw on the reasons for the supply chain risk management strategic decisions taken. The learnings are more applicable to a broader set of examples and real life scenarios of organisations that will be entering Africa.

The population for this research project is multinational companies (MNCs) that conduct business in Africa. The sample that was used is UNKI Platinum mine, one of Anglo American Platinum's business units that successfully operates in Zimbabwe.

4.5 **Unit of Analysis**

According to Yin (2009), the unit of analysis has "plagued many investigators at the outset of a case study." Furthermore, Yin (2009) suggested that a unit of analysis is related to the ultimate problem of defining what the "case" is. This is because the same topic, when analysed by different units of analysis, can result in very different case studies and findings.

The unit of analysis selected is supply chain risk management in UNKI Platinum mine in Zimbabwe. This mining operation was chosen from Anglo American's other global operations in an effort to align with the research requests and objectives. Zimbabwe, on the other hand, was selected as country of analysis because it provided a case where the institutional framework had been impacted by the country's history of political instabilities even though significant success had been observed within UNKI Platinum mine. Therefore, the core of the research was to investigate the reasons for such success from a supply chain risk management perspective, particularly in such an undesirable environment.

The research suggests that Zimbabwe has what Khanna *et al*. (2005) termed "institutional voids" and those companies which chose to conduct business there, would have had to realigned strategies. Therefore, the selection of operations in Zimbabwe represents a "critical case" (Saunders & Lewis, 2012), in which the topic of interest is most likely to occur.

UNKI Platinum mine was selected as the company of analysis for various reasons. UNKI Platinum mine performed above expectation in 2012 and increased its output by 20%, to 62,100 platinum ounces (AngloAmerican, 2013), as opposed to the other Anglo American Platinum operations situated in South Africa.

Furthermore, in order to address the second research question, it is necessary to identify an organisation that entered the SSA market and which was observed as performing well under certain institutional instabilities. As illustrated in Chapter 2, supply chain risks can have significant negative impacts on the organisations that fail to protect against them, therefore the research assumes that UNKI's supply chain risks were controlled, hence they contributed to the overall success of the mine.

4.6 **Data Collection**

According to Eisenhardt (1989), theory-building researchers typically combine multiple data collection methods; hence the proposed research utilised interviews, observations and archival sources to gather data. The usage of multiple data collection enabled stronger substantiation of constructs. Pettigrew (1988) also added that employing different methods allows the case to be viewed from different perspectives.

According to Yin (2009) there are five components that a case research design should include: a study's questions, propositions, unit of analysis, data to be linked to propositions and there has to be criteria for interpreting the findings. The data collection followed a two-phased approach, which are the initial exploratory stage and the descriptive stage.

As part of the initial exploratory stage, the method that has largely been used to collect data was archival and informal discussions with subject matter experts. The aim of this phase was to obtain a high-level understanding of the interactions between Anglo American Platinum and Zimbabwe. For this phase, the sampling method, particularly for the secondary data, can be described as accidental (Welman & Kruger, 2001), in that it depended to a large extent on the availability and survival of historical material.

The descriptive stage took the form of in-depth semi-structured interviews with industry experts, in order to investigate and provide insight into the impact of the institutional voids on supply chain risk management strategic decisions when selecting suppliers of goods and services in Africa, in this case Zimbabwe.

Triangulation points were provided by obtaining information from outside UNKI Platinum mine, such as from suppliers, competitors, analysts and industry professionals. The use of multiple sources of data to corroborate evidence is more important in case research than in other methods of research.

Interviews were conducted with nine people and four people for triangulation purposes. The sources of data were chosen by using the judgement and guidance of the subject, the sampling method is observed as purposive.

All thirteen interviews (including interviews with suppliers and industry experts) that were scheduled were conducted over a period of four months. Within the context of qualitative and exploratory case study research, thirteen interviews were deemed an appropriate response rate. Semi-structured interviews as detailed in Appendix A were used to allow the flexibility to delve into the subject in order to uncover new insights.

Consequently, not all of the thirteen respondents answered all the specific research interview questions precisely. During the interviews, recordings were later transcribed as a basis to verify the factual correctness of the notes produced by the scribe. The notes from the interview were then analysed using Atlas.ti software, by firstly coding the data. This part of the methodology helped to organise data. Furthermore it also facilitated with extrapolating relevant quotations that were used in the analysis phase.

4.7 **Research Instrument**

The case study questions were not direct questions; however they served as a guide and provided scope to the interviewer for leading questions, depending on answers provided.

Additionally, the questions acted as a re-enforcement of information that needed to be collected. Refer to Appendix A for a list of questions that were used as prompts for actual questions in the interview.

4.8 **Analytical Approach**

According to Leedy and Ormrod (2001), analysis normally commences during the collection of data phase; however Kvale (2007) argued that it must extend beyond the mere text restructuring of what was communicated to a deep interpretation of what was actually said. Therefore an in-depth understanding of the material and context is required to accurately relay the facts.

In both the exploratory and explanatory phase of data collection, informal discussions were recorded by taking hand-written notes, while semi-structured interviews were voice recorded and then transcribed. Yin (2009) maintained that data analysis consists of examining, categorizing, tabulation, testing, or otherwise recombine both quantitative and qualitative evidence to address the initial propositions of a study. The type of analysis that was used in the research is inductive, because according to Eisenhardt (1989) theoretical frameworks first emerge through inductive approach of studying an empirical case not through the deductive process.

Furthermore, cognitive mapping (by use of Atlas.ti software) was used to emphasise the main themes of the findings. Cognitive mapping is a method of analysis used to make sense of written or verbal accounts of problems (Hussey and Hussey, 1997). The analysis was conducted using the content and frequency analysis technique to identify any other themes that may have been overlooked in cognitive mapping process. This ensured that the results were credible and dependable.

The respondent list consisted of the senior managers and executives that were directly and indirectly involved in the development of the supply chain risk management strategy for UNKI Platinum mine. The prevalence of codes was summarised in a form of frequency tables and graphs; similarities and differences in related codes across distinct original sources or contexts and/or were discussed and compared the relationship between one or more codes.

4.9 Research Limitations

A case study can record an event or an entity (Yin, 2009). According to Stake (1995) case study methodology, by nature, is a poor basis for generalisation, beyond the generalisations that pertain to the case subject itself. This is especially relevant when using a case study instead of multiple case studies. To limit the scope of the research due to time constraints, a single case study was adopted to ensure that a detailed analysis of the real life phenomenon could be thoroughly investigated.

This case only focussed on a single mining operation within the Anglo American Platinum organisation; its applicability outside of the case subject may be limited. To mitigate this risk Yin (2009) suggested that sources of data must be used to reduce the chances of misinterpretation.

The utilisation of a single case has several limitations related to the analytical power of the study (Verschuren, 2003). Yin (2009) stated that case studies are generalisable to theoretical propositions and not to populations or universes (Yin, 2009). The research acknowledges the limitation related to a single subject of the case.

The analysis was conducted on a South African company with a footprint in Zimbabwe, and more specifically a company within the platinum mining sector. Applicability across industries and between other African countries may need to be considered. Obtaining access to a company and informed consent from interviewees is a well-documented limitation of qualitative research.

Due to the nature of the case study research methodology, the research is unable to determine the exact extent of access required and neither is the research positioned to inform the interviews exactly of what can be expected, asked or discussed (Jones et al., 2000). Consent by UNKI Platinum mine to conduct the case study was provided with an understanding that the methodology would evolve as the research was rolled out and the interview participants were informed that they could refrain from answering any particular question or disengage from the interview itself at any given time.

4.10 Conclusion

The case study is single in nature as only one subject has been selected. The case study will enable the research to answer the research questions in a holistic view, by using a real-world scenario. Thirteen interviews were scheduled however only nine materialised, together with four triangulation interviews with suppliers and industry expects.

This chapter described the methodology that was undertaken to perform the research and analyse the results. It is evident from this chapter that the use of a single case study research was appropriate as part of the intent of the research to understand “how” UNKI Platinum mine developed and executed their SCRM strategies. Furthermore, an introduction stipulating how the data collection and analysis was conducted is discussed, however these will be unpacked in the ensuing chapters.

CHAPTER 5: RESEARCH FINDINGS

5.1 Introduction

This chapter is divided into two sections. The first section emphasises the UNKI Platinum mine story, where more comprehensive information is given on the history of the mine, its corporate strategy and SCRM strategy. The second section deals with the actual research findings. The main objective of this chapter is to highlight and interpret the data that was collected during the interviews as stipulated in Chapter 4.

The findings are presented in alignment with the research questions stipulated in Chapter 3. A brief overview of the interviewees is provided. Thereafter, the key observations and learning are discussed under the relevant research questions. Afterward, the research concludes with a summary of the findings discussing the salient points which are discussed further in Chapter 6.

5.2 The UNKI Platinum Mine Story

"Organisations that effectively manage supply chain risks always succeed in turbulent environment where there is a great deal of uncertainty." Mr Clive Govender (Anglo American Platinum: Head of Supply Chain)

5.2.1 Anglo American Platinum

Eighty percent owned by Anglo American plc, the subsidiary Anglo American Platinum Ltd (AP), is the world's largest primary producer of platinum, accounting for approximately 40% of global supply. Anglo Platinum Company is listed on the JSE Limited and has its headquarters in Johannesburg, South Africa. AP's wholly owned South African mining operations are in the Bushveld Complex. In addition, it has many joint ventures with a variety of partners and also has pooling-and-sharing arrangements with others.

In its current guise, Anglo Platinum was formed, originally under the name Amplats, through the unbundling of Johannesburg Consolidated Investment's (JCI) platinum interests in 1995. The company listed on the Johannesburg Stock Exchange in 1997 as the single holding company for all of Anglo American's platinum assets. The group traces its origins back to the 1920s when Potgietersrus Platinum's Limited (PPL) started a new mine near Rustenburg. This was the start of a spurt of mining activity in the area that led to the formation of a number of local mining companies.

Through a series of mergers, the majority of these mines were drawn into what would become the Anglo Platinum stable. PPL remains part of the group to this day, while its other subsidiaries include Rustenburg Platinum Mines, which owns the group's smelting and refining operations, Anglo Platinum Development Limited, and Kaymin Resources.

Anglo Platinum mines, processes, refines and markets the entire range of platinum group metals (PGMs) including platinum, palladium, rhodium, ruthenium, iridium and osmium. Base metals such as nickel, copper and cobalt sulphate are important by-products and are significant contributors to earnings.

The presence of Anglo American in Zimbabwe dates back to the 1920s. It is an existence that has made a real and permanent contribution to Zimbabwe, with an immeasurable positive influence on social and infrastructural development. The company's rich tradition lives on in historic towns, which their existence due to the company's operations. The mine employs more than 900 employees and contributes to the social development of the nearby communities. The mine commenced operations in 2010, with an initial output of 65 000 tonnes per year.

Anglo American and its subsidiary companies have invested in Zimbabwe for more than 60 years. The Anglo Platinum UNKI project has been in development since 2003. It has been a long-term investment that produced saleable concentrate until the third quarter of 2010. The in-country construction costs have been largely funded from funds already trapped within the country and large capital equipment is purchased offshore, thereby avoiding importing significant sums of foreign exchange into the country.

UNKI Platinum mine was launched as a project worth $90-million; as an amalgamation between Anglo American Platinum and Anglo American Corporation Zimbabwe Limited (Amzim). Feasibility studies for the project were completed in 2001 and additional trial mining was done in 2002. The mine is situated near Gweru on Zimbabwe's Great Dyke, and emerged at a time when many mining and non-mining investors were becoming uneasy about investing in the troubled Southern African country. However, groups such as Implats and Aquarius were also pursuing projects in Zimbabwe.

5.2.2 UNKI Corporate Strategy

The corporate strategy used at UNKI Platinum mine is no different to the corporate strategy for Anglo American Platinum. To understand the latter, it is crucial to recognise the corporate strategy of Anglo American plc, which is as follows:

> to become the leading global mining company by investing capital in the commodities that deliver long-term results and offer the most attractive risk-return profile to shareholders. Anglo American has developed a portfolio of world-class, low-cost, long-life operating assets and growth projects which focus on these structurally attractive commodities. To help realise their ambition, Anglo American aspire to become the country's mining investment, partner and employer of choice.

Anglo American Platinum observes UNKI Platinum mine as one of its extended operations although it is situated outside the boarders of South Africa. Therefore the UNKI Platinum mines' corporate strategy is exactly that of the mother company, Anglo American plc.

5.2.3 UNKI Supply Chain Risk Management Strategy

The supply chain strategy forms part of a set of documents designed to provide a framework in which project procurement management is executed to ensure that approved project procurement deliverables are achieved within Supply Chain. The procurement strategy structure is based on Anglo Project Way and Anglo American Platinum's Supply Chain and modified to suit UNKI Mine and Zimbabwe local requirements.

The strategy follows Anglo American's internationally recognised procurement best practices and standards that provide the fundamentals of good procurement management as they apply to a wide range of procurement packages, including construction, software, engineering, etc. and serve to facilitate the achievement of the project specific strategies values and those of UNKI Mine Zimbabwe. The strategy is executed in terms of a detailed procedure that is implemented by the Project Procurement Manager and Supply Chain Operations Manager.

The Supply Chain strategy ensures that a basis exists where all procurement activities on the UNKI mine are executed uniformly under the guidance of Supply Chain in accordance with Anglo American's procurement principles and guidelines, standards and governance requirements.

Risk Management is controlled and monitored at an Anglo American Platinum strategic level, where all the high level risk mitigation strategies are developed on behalf of all the operations under Anglo American Platinum. UNKI Platinum mine is also incorporated in this strategic level, therefore although the mine is in Zimbabwe, it does not have an independent strategy.

5.2.3.1 The Catalyst for Change

Mr Danie Doubell is the Supply Chain Operations Manager for UNKI Platinum mine in Zimbabwe. Mr Doubell has been with Anglo American Platinum for 22 years; he has extensive supply chain experience. He has held various positions within the organisation, from Senior Supervisor Material, to Senior Materials Controller, to Materials Manager, to Logistics Manager.

In 2009 Mr Doubell became responsible for UNKI supply chain after being appointed by Mr Clive Govender, Head of Supply Chain Anglo American Platinum, as Operations Supply Chain Manager. It was during this time at UNKI Platinum Mine that Mr Danie Doubell commenced with the improvement of the existing Supply Chain Risk Management (SCRM) strategy for UNKI Platinum mine. Mr Doubell helped drive the supply chain management to greater heights.

Although Mr Doubell resides in Rustenburg, South Africa, he frequently visits UNKI Platinum mine in Zimbabwe. His main role on the SCRM strategy has been to obtain as much information as possible regarding the culture of the country and company. This has enabled him to amalgamate his experience with this newly found knowledge to the advantage of the greater good of the supply chain.

5.3 **Research Findings**

5.3.1 Qualitative Interviews

The sample was chosen using purposive sampling as discussed in Chapter 4, to ensure that different perspectives were received from the respondents. Thirteen interviews were conducted comprising of the respondent categories show in Table 5.1 below.

Table 5:1: List of Respondents

Designation	Source	Number of Interviewees
Executive Chairperson of UNKI Platinum mine	July Ndlovu	1
Head of Supply Chain: Anglo American Platinum	Clive Govender	1
Operations Supply Chain Manager: UNKI Platinum Manager	Danie Doubell	1
Risk Manager: Anglo American Platinum	Ian Clegg	1
Senior Project Manager	Victor Coute	1
Project Procurement Manager & Capital Procurement Manager	Motsatsi Thinyane & Mike Wright	2
Head of Engineering: Anglo American	Krish Pillay	1

Designation	Source	Number of Interviewees
Chief Financial Officer: UNKI	Colin Chibafa	1
Suppliers	Stan Green & Jay Chetty	2
Supplier & Industry Expert: Supply Chain in Africa	Andre Smith	1
Industry Expert: Business in Africa	Dianna Games	1
Total		13

5.4 Research Question 1:

Are the strategies for penetrating Africa much different to conventional entry strategies around the world? How do they differ in these environments with starkly distinctive institutions?

Using inductive content analysis, numerous factors were identified from the interviews as being likely to influence the decisions pertaining to why Anglo American Platinum opted to penetrate Zimbabwe and how strategies were altered. The identified elements were then ranked according to the number of respondents identifying each respective factor. A high ranking value indicated that the element has a broad level of influence in strategy development when entering African countries, in this case Zimbabwe. Table 5.2 reflects the various elements identified to have had an influence when Anglo American Platinum entered into Zimbabwe.

Table 5:2: How conventional strategies differ when entering Zimbabwe

Ranking	Elements of importance in strategy when penetrating Zimbabwe, considering the distinctive institutions. How conventional strategies differ when entering Zimbabwe	Number of respondents who referred to element
1	Political institutions knowledge	6
2	Understanding national culture	5
3	Pre-existing relationship	4
4	Cost of doing business	3
5	Organisation structure	3
6	Communicating return of investment in a strategic manner	1

5.4.1 How conventional strategies differ when entering Zimbabwe

5.4.1.1 Political institutions knowledge

Political institutions knowledge of the country was cited as a leading variable that needs to be present when developing strategy for entering Zimbabwe. There were six respondents that emphasised this as an important element that needs to be strongly considered. Two themes emerged from the interviews conducted, namely:

a) Understand environment – it became apparent from the responses that UNKI ensured that they comprehensively understood the environment in which they were operating in in Zimbabwe. The fact that UNKI employed from the locals and moreover had a board of directors that comprised of Zimbabwean, enabled UNKI to be at the forefront when it came to understanding the environment. Although, the responses from suppliers suggest that they are not as flexible to venture into other African countries, their also viewed political knowledge as a fundamental factor of understanding the environment

Implications:

- UNKI Platinum mine was able to tailor-make their strategies, both at corporate level and at SCRM level
- They understood the internal politics of the country and therefore managed politics appropriately
- Building block for better planning

b) Form close relationships – The fact that the board of directors were Zimbabweans assisted UNKI Platinum with forming closer relationships with the government. The board of directors were able to pick up nuances that would have otherwise been ignored by any other organisation.

Implications:

- - This fosters and encourages more proactive responses from organisation
- Government more open and receptive to locals instead of foreigners, therefore encouraging trust in the organisation
- Can foster more collaborative initiatives between organisation and government

The following are some of the responses that we aligned to the two themes:

Mr Colin Chibafa, Chief Financial Officer at UNKI Platinum mine, emphasised these themes, by saying:

> "My involvement is more from a strategic involvement with government officials. In any environment that you go in, it's important to understand the environment well. So it easier for me, as a local, to sit with the Zimbabwean minister to have a discussion and engage with them, because there are some things that are not said that you can pick

> up…therefore you need to understand the people and the politics. I think the governments 'views about what they want constantly evolve…and this causes a lot of uncertainties"

These themes were further emphasised by Mr July Ndlovu, Chairperson: UNKI Platinum mine, as follows:

> "If you think about it, if the Zimbabwean government really wanted to stop us from buying parts of the country, it's very easy, they'd just hide the import duties. So our duty is finding that balance between allowing the mine community, the mine team, which is in a particular country to be seen, to be playing their role as one of the biggest companies in the country, against you driving the synergies as a group globally. So you are going to have to learn to operate in Zimbabwe the way that Zimbabweans operate. Which is probably the only reason why I look after UNKI, because I know how they operate."

Furthermore, Mr Andre Smith, Chief Operating Officer of Powertech Africa and Industry Expert, stated his views on the themes as follows:

> "There is very little that you can do about political risk, although you can insure it through insurance companies like Export Credit Insurance Corporation (ECIC)…However, at the same time you can't be in and out, you have to build relationships. Very extensively and every time I go into a country, I make sure I go and see the consulate as well."

One interviewed supplier expressed his views by saying:

> "Government opens a platform for business to happen, especially in Africa, suppliers tend to be very reluctant to set up facilities like manufacturing…one needs to understand the political issues, you need to understand the landscape, the market requirements etc."

5.4.1.2 Pre-existing relationship

Similarly, pre-existing relationships between Anglo American Platinum and Anglo American Zimbabwe Corporation was considered an important strategic variable when entering Zimbabwe. The following themes emerged from four respondents:

a) Better positioned – the relationship that existed prior to the commencement of UNKI Platinum mine, placed them at an advantage. Firstly AngloAmerican Platinum practically did not need to spend lots of money in trying to understand the political and geographical landscape of Zimbabwe. Secondly, the relationship enabled the UNKI Platinum mine transaction to be fast-tracked although mine development was more than seven years prior to commencement of the mine.

Implications:

– Quicker and less expensive process of penetrating a market

b) - Easier access to country
c) Builds trust

The following are some of the responses that stipulated pre-existing relationship as an important factor:

According to Mr July Ndlovu, the themes were described as follows:

> “We are fortunate because we were not or trying to go into countries as a new entry, we were there already. So we understood the country a lot better, in what we needed to challenge. And with nationals within our company from that country who could actually make things happen for us. We were actually uniquely placed from that point of view.”

Furthermore, Mr Colin Chibafa, emphasised the themes as follows:

> “Throughout the group we had a relationship with Anglo and we knew Anglo held that resource. So, Anglo Platinum bought the Zimbabwean company from Anglo American. And this transaction happened in 2008. The easiest solution that we eventually did was to buy the offshore company that Anglo owned, that owned the Zimbabwean assets. So we did the transaction above Zimbabwe to avoid all the hassles…But only because AngloAmerican has been in Zimbabwe for so many years, therefore has a very good name in Zimbabwe. So the re-entering of getting into Platinum in Zimbabwe was quite easy, because Anglo has a very good presence In Zimbabwe.”

5.4.1.3 Cost of doing business

Three respondents stated that the cost of doing business was another element that influenced the strategy development when entering Zimbabwe. The respondents also affirmed the following themes as having a great impact on the cost of doing business in Zimbabwe, when developing and implementing entry strategy:

a) Willingness to make a plan – it was interesting to note that most responses did not view doing business in Zimbabwe as being an expensive exercise, however what emerged more audibly was the fact that UNKI Platinum mine was willing to make a plan where necessary. Where possible UNKI Platinum mine did not always wait for government to make the business environment more conducive. It can be argued that the reason they were that flexible "to make plans" was because they understood what was as stake as they were Zimbabwean themselves.

Implications:

– Organisations need to be flexible when entering African markets

– Enables an environment for creativity and innovation

b) Infrastructure investments – AngloAmerican Platinum was aware of the infrastructural voids from the onset, therefore UNKI Platinum mine was able to ensure necessary budget was secured.

Implications:

– MNCs to ensure proper budget is secured

– This requires an appreciation of the environment, which means it can not be a desktop exercise, organisation will need to invest in first understanding the environment.

The responses that were related to cost of doing business are stipulated in the following responses:

On the one hand, Mr Colin Chibafa seems to think that entering Zimbabwe was not as expensive as was initially expected; he expressed his views on the themes as follows:

> "…I don't think it's financial muscle you need. I think you need to be willing to make a plan; put it that way…you need to make a plan again because the skills and resources that exist in in South Africa, are not exactly available Zimbabwe. The infrastructure was starting to decay. So there were concerns around infrastructure. So part of the litigation activities that we did was we'd enter into negotiations with the Zimbabwe government for its termed the special mining lease. Effectively in terms of the Mines Minerals Acts, is if you invest more than R100 million dollars, you can then sit down with the government and then negotiate any special dispensations that you need because it's a large project."

On the one other hand, Mr Danie Doubell expressed his views on the investment done by UNKI Platinum mine:

> "Factories, roads, offices and other infrastructure is very old, hence there is a huge need for investment into infrastructure. Although machines and equipment are operational, they need to be refurbished or replaced with newer models. UNKI invested on a six kilometre road infrastructure, from the main road to the mine operation."

Therefore, this could suggest that doing business in Zimbabwe can be costly as it needs to be ensured that the organisation had allocated budget for infrastructure development. However, a view from a supplier was as follows:

> "…one shouldn't be fooled by the lack of infrastructure because the infrastructure is just one picture but what's actually happening underground is very different and those spaces are being filled very quickly so we must be very careful because we may be too late to get onto this business of expansion."

5.4.1.4 Organisational Structure

Three respondents rated this element as important to strategy when Anglo American Platinum entered Zimbabwe. The views of the respondents were similar in that they believed the current organisational structure had a great influence on the strategy and implementation thereof. The themes that emerged from the respondents are:

a) Own board of directors – the fact that UNKI Platinum mine had its own board of directors seems to have made an imperative influence over the running of the organisation in the context of Zimbabwe. The other AngloAmerican Platinum mines in South African did not have their own dedicated board of directors. It was as if the organisation was a national champion for the people of Zimbabwe.

Implications:

– Better communication flow between organisation with employees and with government.

– Fast decision-making process

– Empowered locals – therefore will ensure organisation succeeds at all reasonable cost

b) Local employment and agents – most suppliers seemed to be more in favour of having a local distributor to access the potential for growth, prior to site establishment at host country. The local employees and local agents typically know the environment better than any foreigner.

Implications on business::

– better negotiations skills

– better understanding of the market, legal requirements and culture

c) No expatriates employment

The following respondents mentioned organisational structure as crucial in strategy development and implementation:

Mr July Ndlovu expressed his views as to why Zimbabwe has its own board of directors:

> "The fact that Zimbabweans are the major shareholders who controls the company is not incidental…so the notion of creating national champions when you go and invest in other geographies is quite important. You can't transplant a champion in another country into another country necessarily. I think we manage UNKI as an important player in Zimbabwe, and that's why it has a chairman, we wouldn't give every mine a chairman. It has been given the semblance of respectability that it requires in the country…So it's easier for me (as a Zimbabwean) sitting with the Zimbabwean minister to have a discussion and engage with them, cause there are some things that are not said that you can pick up"

It was interesting to hear relatively the same view being expressed by a supplier, as stated below:

> "…to employ local agents who understand and know their market and obviously they become your representation in securing the market, getting market intelligence, feedback and they obviously understand and know the terrain so we'll find that in that way you don't have a high cost holding so to speak to set up a sales office or an infrastructure."

5.4.1.5 Understanding national culture

Five respondents identified national culture as a factor that influenced strategy alternation when Anglo American Platinum entered Zimbabwe as UNKI Platinum mine. The following themes arose from the five respondents:

a) Assists with dealing with Zimbabweans – according to the respondents the locals in Zimbabwe tend to be more educated if compared with other locals from other African countries. One responded even said this high level of education could have been the reason why UNKI Platinum mine succeeded because they understood exactly what was expected from them and there was always some thought given to all their action.
b) Better understand the national and individual psyche – This according to one respondent helps when it comes to negotiations and strong building relationships.
c) Understand work ethics – the respondents seems to suggest that there could be a correlation between work ethics and national culture and if organisations understand this correlations and react accordingly, then more employees productivity can be increased.

Implications are:

- Improved strategy implementation
- Strategy aligned with national culture
- Improved work environments

Some respondents who mentioned "understanding national culture" as an important element for entry-strategy in Africa are as follow:

Mr Danie Doubell, the Supply Chain Operations Manager at UNKI Platinum mine, stated:

> "…the key success factor is that UNKI has people that understand the country, they understand the culture, they understand the way of work, they understand the politics and so on. Zimbabweans have gone through a very hard time and they don't want to go through that again. They work very hard. They are generally more educated than the South Africans. You can talk to a guy and give him an instruction and you can go away and come back and that instruction will would have been executed better than you expected. Zimbabweans are very passionate people. When they play they play and when they work they work"

Moreover, Mr July Ndlovu, as a local, reinforced the themes in the statement below:

> "Firstly, Zimbabweans have very different cultures. They are very proud people, with very good education, they are very confident and believe in their abilities. And it's also it just happens to be where they are in their own national journey, they are a very Nationalistic country at the moment. So they always, almost always, start with we own our resources, we own

> our country, you can't come tell us what to do in our own country. So if you don't understand how deeply embedded that is in the psych of the people that you are dealing with, strategically negotiations go nowhere. Understanding culture helps with comprehend the thinking and also to try and influence that thinking. What I've known for example is that suppose it's a cultural thing again. You don't criticize these guys in public. In private you can very robust discussions…"

Mr Colin Chibafa, also voiced his views as stated below:

> "…and there are some things that are said that you can ignore. So it's important to understand the culture, which will definitely help with strategy development and implementation. I always say in Zimbabwe there tends to be a lot of noise that comes out of the country, one just needs to know when to ignore the noise and carry on."

5.4.1.6 Communicating return of investment in a strategic manner

Only one respondent emphasised how the communication strategy had to be altered, particularly in the process of trying to convince the investors about the potential that UNKI Platinum mine was a profitable mine in the mist of the challenges experienced in the Zimbabwe. The following is an example of what the respondent said that emphasised the challenge:

> "…That was a difficult selling the idea of investing in Zimbabwe cause the government would get up and say things and the board would tell you think what are you smoking asking us to invest in that.."

The theme that emerges from this response is that there is a need for alignment. The fact that UNKI Platinum mine had a separate board of directors improved their communication to the investors, in that they could convince the investors in something they themselves believed it. As mentioned by one of the respondents above, Zimbabwean are passionate people, hence it must have been easier for them to convince the investors of the potential opportunities in Zimbabwe.

5.5 **Research Question 2:**

Presuming alternative strategic approaches in Africa are adopted in general, what supply chain risk management strategies do organisations adopt in new Sub-Saharan African markets?

As reflected in the Table 5.3 below, of the 13 respondents, six felt that supply chain risk management strategy at UNKI Platinum mine was adapted to suit the Zimbabwean environment, moreover suggested supply chain elements that need to be considered when entering Sub-Saharan African markets like Zimbabwe.

Table 5:3: How different is the supply chain risk management strategy when entering Sub-Saharan Africa.

Ranking	How different is the SCRM strategy in Sub-Saharan markets	Number of respondents
1	Requirements of host country (legal, etc)	6
2	Proper and adequate pre-planning	5
3	Supplier footprint & financial stability (knowledge of country of operation)	4
4	Pre-existing relationship between company & supplier	3
5	Hyperinflationary issues	3
6	Engagement and involvement with locals	1

5.5.1 How different is the supply chain risk management strategy in Sub-Saharan Africa?

5.5.1.1 Requirements of host country

Six respondents felt that specific requirements of host country had a great impact on the development of supply chain risk management strategy at UNKI Platinum Mine. The themes that are revealed in this section are:

a) Laws and regulations – these, according to respondents, are important for organisation to understand as they will assist organisation to know how goods and services will need to be supplied in host country.
b) Ease of operating in host country – understanding the host country requirements helped UNKI Platinum mine to operate in Zimbabwe with less hassles. However, most respondents suggest that this could have been made easier by the fact that there was a pre-existing relationship between Anglo American and Zimbabwe. On the other hand, the other respondents argue that the “ease” of operating in Zimbabwe was exasperated by the local board of directors and employees. Hence the governance would not necessary have an alteration with such a structure.
c) Innovative way of doing business – UNKI Platinum mine constructed their own ZIMRA office with weight bridge facility to eliminate the delays experienced at the original ZIMRA office. Moreover, this was testament of UNKI Platinum mine “willingness to make a plan” in other to create an enabling environment for themselves.

Implication is MNC will be empowered to act proactively.

The following are some of the responds that were related to understanding host country requirements:

Mr Clive Govender, the head of supply chain within AngloAmerican Platinum expressed his views as follows:

> "You need to understand the countries laws and regulations that applies and be able to articulate that and see exactly how can you still supply into the country but still do it within the parameters of the legislation. So when it's a new country, understand the country before you get there. Understand the key of legislative frameworks, position yourself, look at the logistics, look at the infrastructure and then see how best you can position yourself to do business in the new region. A fact file for each region is required, this is the import export policies in the region, these are the rules and regulations, this is how we can comply, this is the loopholes we can see in the system. An organisation has to understand the country very well and then start to go there. You can't go into a country blind…"

Furthermore, Mr Clive Govender delineated the importance of understanding the requirements of any host country and innovative ways of ensuring compliance:

> "…supplier must be local…If one of them is falling short we will assess whether the supply can be developed over a period of time or whether the supply doesn't actually really meet our requirements. But we take the development angle to how we deal with the companies and so on…And if we don't do that then we'll deal with no companies in Zimbabwe. however if we take a development approach we will know okay there are the gaps, this is how we have to fit the gap and how we have to supply to get more in tune without requirements."

Moreover, Mr Danie Doubell provided an example of the type of innovation that we had to be implemented at UNKI Platinum mine:

> "The whole supply chain strategy is just around legal issues…for example the transport of your costs the government was very adamant that no platinum must go out of the country without their knowledge, this resulted in UNKI Platinum mine establishing a Zimbabwe Revenue Authority (ZIMRA) office with a weighbridge facility. This enabled the ZIMRA

officials to be situated on the mine ensuring every truck leaving UNKI mine obtains approval from ZIMRA, after all checks and balances are completed."

5.5.1.2 Proper and adequate pre-planning

Similarly, five respondents indicated proper and adequate pre-planning as an element that requires attention when developing SCRM strategy, particularly when entering Zimbabwe. The themes that emerged in this section are as follows:

a) Calculated risk – respondents emphasised that the planning needs to be done in advance, otherwise, entering African market can be an expensive exercise. It seemed to be true from both UNKI Platinum mine and supplier perspective. However, the responses from the suppliers appeared to suggest that they tend to be more risk averse than MNCs when it comes to penetrating African countries, and therefore this could be a liability for the MNC, hence proper planning required.
b) Dedicated team – experts in the industry overemphasised the importance of having a dedicated team of people to proper do the planning phase before entering into an African market.

Implications:

– MNC's need to be more focussed when penetrating Africa,

– Conclusion is that Africa is risky and therefore supply chain will invariably risky

The responses that were aligned with "proper and adequate planning" are captured as follows:

Mr Clive Govender stated that:

> "When you get into a new country and you don't manage it properly or you don't have the correct skill set, or even the procurement and supply chain you are going to have trouble. So you need to do all that planning well in advance. That's the reason why a lot of companies have found that there's a gap in the market. There are a lot of mines in Africa. They do not have sophisticated supply chain organisations. The infrastructure in Africa is not the greatest. Logistics into Africa is not the greatest, and therefore you have to plan accordingly."

Mr Krish Pillay, Head of engineering standards: AngloAmerican, also emphasised the importance of pre-planning:

> "So the most important thing is planning ahead. First of all understanding what are the issues that there could be. Planning ahead and setting up your business structure"

According to Mr Andre Smith, proper planning is pivotal to the success of supply chain risk management strategies; he stated:

> "…organisations tend to take it on risk; they take it by thumb-suck. We used to do it like that; we would take a thumb-suck and say 'well it should be alright'. We have burnt our fingers in the past. Organisations need to ensure that they have dedicated departments or divisions that can focus solely on supply chain risk management, particularly in Africa. It's the only way they can be successful"

5.5.1.3 Supplier footprint and financial stability

Four respondents emphasised supplier footprint and financial stability as an element that can influence the development of SCRM, particularly when selecting suppliers to operate in Sub-Saharan African region. The following themes emerged from the responses:

a) Supplier experience – UNKI Platinum mine views suppliers experience in the African context as a pivotal element for the success of the supply chain, this is also re-iterated by the industry experts. This appears to be observed as a means of managing supply chain risk in Africa.
b) Supplier agility – according to the respondents, if the supplier has experience with operating in Africa, then they tend to be more understanding and agile to changes in the African context.

The implication is that MNCs can select suppliers with experience in the African context as a means of mitigating risk in the supply chain

The following are some of the responses that we aligned to the two themes:

Mr Andre Smith's statement below is suggestive of the level of experience organisation has to have in Africa:

> "…A supplier has to have extensive exposure to different African countries, otherwise it is advisable for an organisation to consider

> contracting or employing a logistic company to conduct study of each country, what can shipped, where to, and during what seasons. So if supplier has delivery lead times, they have to ensure that client is aware. The supplier has to know things like height restrictions, weight and mass restrictions, and width restrictions in certain countries because the bridges tend to be narrower…"

Furthermore, Mr Andre Smith explained the benefit of technical know-how and experience as follows:

> "There has to be a technical team that is responsible for also training the clients in terms of selecting the right product and what is best practice etc…and for ensuring that supplier delivers a good quality product. No supplier would want to ship for instance a thousand drums of cable into Ghana or Zimbabwe, only for product to fail and then supplier ensure effective reverse logistics. However, it is a challenge to return products out of the most African countries"

Mr Clive Govender explained what other organisations do in order to gain the required experience:

> "Other companies conduct dummy trials to gain experience. Take for instance equipment that needs to cross the border to another African country. Organisation would take it across the border, to observe exactly the time it leaves the factory or the time it leaves the yard, how long does it take to get to the site, and they use this as a test case. They would repeat the process on numerous occasions to identify potential bottlenecks in the process and eventually employ initiatives to improve the process. Once the process has been mastered, then would the organisation contract with clients and they would offer excellent service. This becomes the differentiating factor between a company that has experience and one without."

The responses from suppliers suggested that they tend to be more risk adverse than the clients. One supplier stated this in the interview:

> "…we don't take any risk in terms of financial risk. The company is very risk adverse. So either the client pays a deposit or they pay the rest upfront before we deliver."

5.5.1.4 Pre-existing relationship between company and supplier

Pre-existing relationships between company and supplier were viewed by three respondents as another point that set SCRM strategy at UNKI Platinum mine apart from the rest. The themes that were observed from the responses are:

a) Builds trust – AngloAmerican Platinum in South Africa had prior long relationships with the suppliers. These relationships were based on trust that AngloAmerican Platinum will timeously meet their transactional obligations as they used to in South Africa.
b) Negotiation tactic – The existing relationships were used as leverages when negotiating with these suppliers in Zimbabwe.
c) Alleviates non-payment fears from suppliers – therefore suppliers would be at ease knowing that UNKI will meet their financial obligations.

The following is an example of response that emphasises the importance of pre-existing relationship between organisation and supplier:

Mr Danie Doubell stated the significance of pre-existing relationship between UNKI Platinum mine and the suppliers:

> "…one of the most prevalent fears from suppliers is the fear of not receiving any payment from an organisation operating in any African country. Initially suppliers were not sure whether they will get paid or not, when they supplied goods into UNKI. I always had to convince them that they were dealing with Anglo American and not necessarily Zimbabwe although Anglo was operating in Zimbabwe. Fortunately, most of the suppliers were those that Anglo American Platinum used in South Africa operations, hence these discussions would be based on the long relationship Anglo American Platinum had with the suppliers…"

5.5.1.5 Hyperinflationary issues

Even though Zimbabwe faced severe hyperinflation within its recent past, only three respondents discussed inflationary issues as being able to affect the supply chain risk management strategy. The themes that stand out from the responses are:

a) Management of imports – respondents emphasised that there risks associated with hyperinflation in Africa, and these need to be constantly monitored, otherwise the supply chain department will imports goods that are uneconomical at any point.

b) Indicator of infrastructural deterioration – some respondents also mentioned that another reason for monitoring hyperinflation was that it can it used as a indicator infrastructural deterioration.

The following are some of the responses that we aligned to the two themes:

Mr Clive Govender expressed his views on inflationary issues as follows:

> "If we don't manage issues of exchange rate, fluctuations and we don't look at the rand dollar exchange rate and we don't consciously manage that risk we could have a situation that we're importing products that can be completely uneconomical. So we constantly evaluating our risk, constantly looking at importing of products and see exactly how it affect our cost base."

It is interesting that some respondents used inflationary issues as an indicator for monitoring infrastructure; Mr Colin Chibafa stated that:

> "…so we were dealing in an environment where we knew there would be high inflation. There were foreign currency shortages in the country. The infrastructure was starting to decay…"

Mr Danie Doubell on the other hand, explained that

> "…hyperinflation didn't impact Anglo American Platinum a lot, however UNKI was severely impacted. Hyperinflation just delayed the go-live date. UNKI was initially developed as a project for Anglo Platinum, hence all costs were paid for in rands or in US dollars and the payments were processed in South Africa. UNKI was funded by AngloAmerican, the economy at that stage did not influence the way that Anglo Platinum was to do business."

5.5.1.6 Engagement and involvement with locals

Only one respondent out of a total of 13 respondents emphasised the importance of socially engaging and involving with locals as an element that can be used to build relationships with Zimbabwe as a means of understanding the local culture.

Mr Danie Doubell shared his experience with the locals as follows:

> "I was invited to the HOD team building and there are a lot of things that happened but on the last night they got a local band to play at the

function, the closing out dinner. We had a fun day on that day. I started two land rovers with a pocket knife and those guys would not believe what I did. The leader of the band played one or two songs and then said well we must forgive him that one of his band members are not there. And if there is anyone that can play in the band and want to join the band they may. I went to the guys and told him I can play drums and he asked if I could really play drums? He asked if I can really play reggae music, so I said why not let's try and the guy that was not there was the drummer. The guy that was playing lead guitar was playing the drums. They were very skeptical. When the HOD's saw me sit behind the drums they did not know what to expect. It was supposed to be one or two songs and two o clock in the morning we were still playing. I didn't know the songs and I just went with the beat. The Reggae beat is very simple. Every time we go to UNKI, they mention the experience of that night."

The themes that emerged from involving and engaging with locals are:

a) Builds trust – Mr Danie Doubell, who is seen as the "change agent" on the development and implementation of supply chain risk management strategy at UNKI Platinum mine, spent a vast amount of time with the locals at Zimbabwe. He believes that this helped with creating the trust that is required when engaging with African countries.
b) Team building spirit – Mr Danie Doubell also believes that if organisations try to understand the locals on personal levels then it is much easier to engage with them with regards to work related requirement, in this case in the implementation of SCRM strategies.

5.6 Conclusion

The results from the two questions generated aggregated results of significance and validity. The top two salient factors that emerged from the interviews were political institution knowledge and understanding national culture, addressing research questions one; and requirement of host country and need for proper pre-planning for research question two. These will be discussed comprehensively in Chapter 6 in relation with Chapter 2.

The results demonstrated that both questions support the case study regarding supply chain risk management strategy at UNKI Platinum mine. In addition, the findings unearthed proved to be profound and garnered unique insights that explained the SCRM strategies in Sub-Saharan Africa.

CHAPTER 6: DISCUSSION OF RESULTS

6.1 **Introduction**

In this chapter, the research findings from chapter 5 are comprehensively discussed. Furthermore the research findings are also linked to the literature reviewed in Chapter 2. The research questions and the semi-structured interview questions that formed the basis of this study were defined based on the existing literature pertaining to supply chain risk management strategies in Africa. The level of data achieved in seeking to find answers to the two main research questions was elicited through the process of semi-structured interviews with middle management to senior executives who were involved in the drafting of supply chain risk management strategy at UNKI Platinum mine.

The core question of the research: “supply chain risk management strategies in Africa, with particular interest in the platinum Zimbabwean operation.” This question has been viewed as a double-barrelled question, one part dealing with how strategies are altered with penetrating the African market, and the second addressing what supply chain risk management strategies are suitable for the Sub-Saharan African market.

As discussed in Chapter 2, the research is constructed on four pillars: emerging market strategies, the dynamics of Zimbabwean history, the supply chain management, and the supply chain risk management strategies. Although the management of supply chain risks is not an entirely elusive concept, there is limited literature in the African context. The research results discussed in this chapter contributes to the development of supply chain risk management strategies in the African context. The relevance of the results and existing literature in the context of this study are explored in this section. Appendix C comprises the consistency matrix which demonstrates the consistency of the research.

6.2 **Overview of Results**

6.2.1 Number of Interviews

The research set out to interview a total of twelve middle and executive managers, who were involved in the development and execution of the supply chain risk management strategy, at UNKI Platinum mine in Zimbabwe between the period 2006 and 2012. The main objective was to gain insight into the approach, development and implementation of supply chain risk management strategies in Africa.

Only nine of the twelve scheduled interviews were successful. The other three interviews were scheduled to take place in Zimbabwe, as the participants were based in Zimbabwe; however meetings had to be cancelled as the dates coincided with the dates of the national elections. The cancellations were a result of management instruction as staff safety could not be guaranteed during the days preceding and after the national elections.

There was not enough time to reschedule the interviews, nor was it possible to conduct teleconference interviews as the participants were fully booked. Furthermore, two suppliers and two industry experts were interviewed for triangulation purposes.

6.2.2 Quality of Interviews

The quality of the interviews conducted and assessed on the basis of the depth of information and insight gained is good. All of the interview participants were enthusiastic about sharing their experiences. By the fifth interview, a pattern in the strategic supply chain risk management considerations and approach by UNKI Platinum mine emerged. By the ninth interview, these were fully-framed, with only nuanced, individual-specific, differences evident between the participants. A discussed in Chapter 4, this may be described as “theoretical saturation,” which offers credibility to the findings of this research.

The two suppliers interviewed offered a unique perspective, however these responses were still aligned to the response of the main participants. The two industry experts provided a more generic view of different industries implement supply chain risk management strategies in Africa. As discussed in Chapter 4, this type of triangulation aided to address the methodological problem of determining construct validity, thereby increasing the overall quality of the case study.

6.3 **Research Question 1**

Are the strategies for penetrating Africa much different to conventional entry strategies around the world? How do they differ in these environments with starkly distinctive institutions?

The foundation of this question is institutional theory. In this study, this question sought to investigate how organisations alter strategies when entering African markets. Moreover, how certain institutional environments and frameworks influence strategy development was analysed.

This research question sought to understand the strategic factors that are required when entering an African market. The factors identified were ranked according to frequency of responses, with the different factors having varied weightings based on this ranking. These factors are listed in ranked order in Table 6.2. Six factors were identified as being significant factors for consideration when developing entry strategies into Africa.

6.3.1 Political institutions knowledge

Six respondents identified this factor as the most significant factor to be considered when entering an African market. Respondents supported their perspectives regarding this factor by stating:

> "In any environment that you go in, it's important to understand the environment well. Understand that there are certain nuances that you might not pick up…you need to understand the people and the politics…" - Mr Colin Chibafa

In support of this result, one should refer back to the work of Kamau (2011) who stated that organisations must identify the respective country's power centres, such as its bureaucracy, media, and civil society, and determine what checks and balances are in place. Lyons (2013) also suggested that citizens (and organisations) with higher levels of knowledge tend to be more trusting of political institutions, more supportive of democratic principles, are more politically active, and are have an increased likelihood of expressing preferences related to the performance of political institutions.

Therefore, from the analysis of the data collected from interviews it can be concluded that UNKI Platinum mine possessed political institution knowledge, because of the high number of respondents who mentioned it. This could be attributed to the fact that UNKI Platinum mine executive board members and employees are all Zimbabweans, hence bringing an embedded knowledge of the political institution of the country. This, according to Lyons (2013) created trust between government and organisation.

6.3.2 Understanding National Culture

Five respondents identified national culture as a factor that influenced strategy alternation when Anglo American Platinum entered Zimbabwe as UNKI Platinum mine. The respondents went on to emphasise this view as follows:

> "…the key success factors, is that, you've got people that understand the country, they understand the culture, they understand, the way of working, they understand the politics so…"

This finding is supported by Podrug (2011) that international business is confronted with failures and difficulties that are a result of a lack of understanding of cultural background rather than that of market conditions. The respondents' feedback suggested that there is a high degree of national culture understanding from AngloAmerican Platinum. This factor seems to have had a major impact on the development and implementation of the entry strategy into Zimbabwe. The responses below further illustrates this view:

> "But just the fact that they went through a very difficult time and they don't want to go back to that. They are very proud people"
>
> "They are very different cultures, so that is one. Secondly, except that in fact they are very proud people, very good education, who believe that they know what they are talking about, what they are doing. And it's also it just happens to be where they are in their own national journey, they are a very Nationalistic country at the moment"

6.3.3 Pre-existing Relationship

Pre-existing relationships between Anglo American Platinum and Anglo American Zimbabwe Corporation was considered as an important strategic variable when entering Zimbabwe. Four respondents emphasised this view as follows

> "We are fortunate because we were not or trying to go into countries as a new entry, we were there already. So we understood the country a lot better, in what we needed to challenge," "But only because we've been in Zimbabwe for so many years we have got a very very good name in Zimbabwe as Anglo American. So the re-entering of getting into Platinum in Zimbabwe was quite easy. Because Anglo has a very good presence In Zimbabwe"

This view seems to be aligned with Harris and Lyon (2013) who suggested that trust is built by having information about others, prior experience of working together and norms of cooperation. It can be assumed that information on others and norms of cooperation can be obtained if there is a pre-existing relationship between parties.

The fact that Anglo American had long standing ties with Zimbabwe seems to have had a positive impact on decision to establish UNKI Platinum mine. Evidence from the respondents also suggests that this long relationship might have had positive over-spilling effects on the employees working at UNKI Platinum mine. However, it is important for organisations guard against excessive reliance on high levels of trust as it can constrain relational advantage (Day, Fawcett, Fawcett, & Magnan, 2013)

6.3.4 Cost of Doing Business

Three respondents stated that the cost of doing business was another element that influenced the strategy development when entering Zimbabwe. The respondents' views are as follows:

> "…I don't think it's financial muscle you need. I think you need to be willing to make a plan; put it that way…you need to make a plan again because the skills that we take for granted in South Africa, are not exactly available Zimbabwe…"

> "…but you need to put a lot more investment into infrastructure…the road infrastructure is not that great your rail infrastructure is almost non-existent… we did the road, from the main road to the mine we did the roads and that's about 5 to 6 kilometres long…"

According to survey by Ernst & Young (2013) one of the main constraints of doing business in Africa pertains to physical transport infrastructure. It was interesting to ascertain that only three respondents mentioned cost of doing business as an element to consider when developing strategy. Although there was an underlying understanding that the penetrating markets like Zimbabwe could be expensive, on the contrary a common insight that prevailed was that UNKI Platinum mine had to make "ends-meet" with the resources at their disposal.

The three respondents explicitly indicated that they had to be creative when operating in Zimbabwe. Therefore, this calls for the organisation to be flexible enough to be "enabling agents" when dealing with African markets like Zimbabwe, as opposed to wait for the environment to be conducive enough. This is also applicable to that fact that UNKI Platinum mine invested on the road infrastructure that leads to the mine.

What was captivating about the responses on the cost of doing business in Zimbabwe was that the respondents did not view the hurdles experienced as problems. Instead, they observed the hurdles as things they had to overcome in order to get the "ball-rolling."

6.3.5 Organisation Structure

Three respondents rated this element as important to strategy when Anglo American Platinum entered into Zimbabwe. The views of the respondents were similar in that they believed the current organisational structure had a great influence on the strategy development and implementation thereof. The views were as follows:

> "I think we manage UNKI as an important player in Zimbabwe, and that's why it's got a chairman, we wouldn't give every mine a chairman, So it's given the semblance of respectability that it requires in that country"
>
> "…everybody that is full time employees at UNKI mine is a Zimbabwean citizen…"

Abugre (2013) asserted that cultural differences can create challenges for MNCs doing business in other countries because of the variations of cultural patterns that are observed by people from different countries. The fact that all the employees at UNKI Platinum mine are Zimbabwean eliminates the challenge of cultural differences at mine, thereby fast tracking the implementation of strategy. Mentzer *et al*.(2001) outlined trust, commitment, cooperative norms, organisational compatibility, and top management support as five cultural elements of shared values among supply chain organizations (Mello & Stank, 2005).

All the other Anglo American Platinum mines that are situated in South Africa do not have their designated chairman and board members; yet this is the case for UNKI Platinum mine. Moreover, UNKI Platinum mine is a smaller mine if compared with the rest of the other Anglo American Platinum operations in South Africa. However, UNKI Platinum mine is observed as a national icon in Zimbabwe and therefore it has been given the same kind of reverence by Anglo American Platinum, by ensuring it has a chairman and board members so that it acts autonomously in Zimbabwe.

6.3.6 Communicating return of investment in a strategic manner

Only one respondent emphasised how the communication strategy had to be altered, particularly in the process of trying to convince the investors about the potential that UNKI Platinum mine was a profitable mine in the midst of the challenges experienced in the Zimbabwe.

The fact that UNKI Platinum mine had its own board that understood the environment was an advantage, because they were able to effectively manage the communication between senior management and the investors. It can be argued that most of the factors that have been mentioned created an enabling climate for the board to convince investors of the potential gains in the midst of the challenges the country was experiencing.

6.4 **Research Question 2**

Presuming alternative strategic approaches in Africa are adopted in general, what supply chain risk management strategies do organisations adopt in new Sub-Saharan African markets?

Acknowledging that most successful MNCs owe their success to an ability to adapt their strategy and operations to local conditions, the potential associated supply chain risks needs to be managed in order to support the overall corporate strategy. This question thus seeks to understand the supply chain risk management strategic elements that need to be considered when entering African markets, through lessons learnt by the UNKI Platinum mine SC leadership team. Furthermore, this question also seeks to understand the interaction between these supply chain risk management elements and the institutional environment of African markets, in particular.

6.4.1 Requirements of Host Country

Six respondents felt that country specific requirements had great impact on the development of supply chain risk management strategy at UNKI Platinum Mine. The views were emphasised as follows:

> "…supplier must be local…If one of them is falling short we will assess whether the supply can be developed over a period of time or whether the supply doesn't actually really meet our requirements…"

Dicken (2007) argued that various separate low cost regions may have very different business and government environments as well as location-specific. Porter (1990) suggested that in looking for successful suppliers, organisations need to consider the factor conditions of the supplier's location, the demand conditions in the supplier's country, the supporting industries, and the institutional climate of the supplier's country".

The response from the participants points to an area of importance within country specific requirements. The Zimbabwean government required that UNKI Platinum sources goods and services from the country, and therefore source less from foreign suppliers. However, further discussion with the respondents revealed that this was very challenging as Zimbabwe was undergoing an economically difficult period. Moreover this was supported by Zimbabwe's Central Statistical Office (CSO) that in 2008 the country experienced its worst hyperinflation rate of 231.2%.

Therefore the impact of the hyperinflation caused foreign currency shortage in Zimbabwe, which in turn led to shortage in material and fuel. It can be concluded that there was few suppliers to produce the materials needed. A supplier response that was, at the time, situated in Zimbabwe supported this statement by saying that they moved their manufacturing facilities from Zimbabwe during the time of the hyperinflation.

In essence, on the one hand it can be said that the type of country-specific requirements can act as an obstruction for MNCs that want to do business in Zimbabwe due to the ripple effects of the requirements on the entire business environment, particularly if there are deficiencies within the country.

On the other hand, MNCs wishing to do business in Zimbabwe may embrace the challenge and act as a change agent within the process. Therefore, from a supply chain risk perspective, MNCs would need to assess what the host country's specific requirements are and also ascertain if the national government created a favourable business environment that facilitates the requirement.

One industry expert emphasised that just as it is important to understand an environment before doing business there, is it equally important to perform due diligence of the country from a supply chain risk management perspective. He added that this would enable the MNC to be more prepared when doing business in the host country.

However, UNKI Platinum mine seemed to have been at the forefront with regard to understanding the country specific requirements, because as mentioned in the preceding section, they had local employees and Zimbabwean board members, which enviably positioned UNKI Platinum mine to be up-to-date with requirements even before they went public. Thereby, fostering UNKI Platinum mine to be more proactive in responding to the specific requirements.

6.4.2 Proper and Adequate Pre-planning

Similarly, five respondents indicated proper and adequate pre-planning as an element that requires attention when developing SCRM strategy, particularly when entering Zimbabwe. The themes, as highlighted in Chapter 5, that emerged in this section are as follows:

a) Calculated risk
b) Dedicated teams

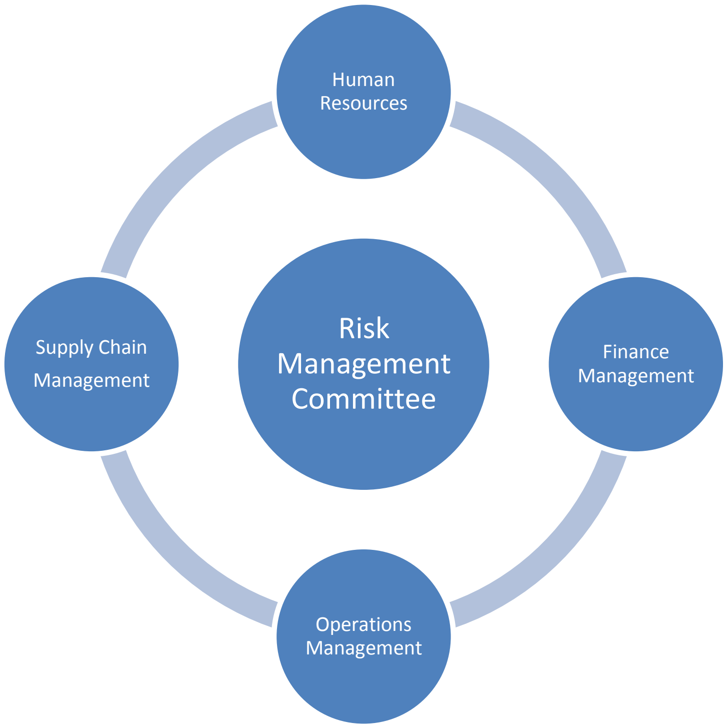
Planning ahead, according to Mr Krish Pillay, is the most important element in development of supply chain risk management strategy. Tang and Musa (2011) interpreted risk as unreliable and uncertain resources creating supply chain interruption, whereas uncertainty is defined as matching risk between supply and demand in supply chain processes. Some might contest the notion of planning ahead for something that is unreliable and uncertain.

However, the analysis shows that planning ahead eliminates the probability of ‘burning your fingers’ as explained by Mr Andre Smith. He even suggested that organisations develop dedicated teams that can solely focus on planning supply chain risk management strategies.

Planned work is safer and more efficient to achieve objectives. Business is full on uncertainties. Risks of various types can arise due to uncertainties. Planning helps in reducing uncertainties of future as it involves anticipation of future events. Walters (2011) argued that risk management of a SC has a considerable influence on the stability of dynamic cooperation among SC partners and is therefore very important for the performance of the SC operations as a whole.

Anglo American Platinum has a dedicated committee that deals with risk management across the business unit. The learning is that these dedicated teams comprise of different functions as demonstrated in Figure 6.1. The committee would meet on a regular basis to review the risk matrix of both all mining operations, including UNKI Platinum mine.

Figure 6.1: Risk management committee member



Mr Ian Clegg, the Risk Manager for Anglo American Platinum emphasised the importance of having SC being part of the dedicated committee dealing with risk management:

> "…firstly, sentiments around the fact that risk management can be part of supply and vice versa is absolutely correct, one of the problems with functions like supply chain and disciplines like risk management people tend to see them as standing by themselves. In my opinion supply chain and risk management are just tools which help you to achieve your business objective and hence the importance of having an integrated team to ensure functions are aligned with the overall business objectives and work towards a common goal..."

Although the future cannot be predicted with accuracy, having proper plans does assist management to anticipate the future and prepare for risks by necessary provisions to meet unexpected turn of events. Therefore, it can be concluded that with the help of planning, uncertainties can be forecasted that help to prepare for standbys. As a result, uncertainties are minimized to a great extent.

6.4.3 Supplier footprint & financial stability

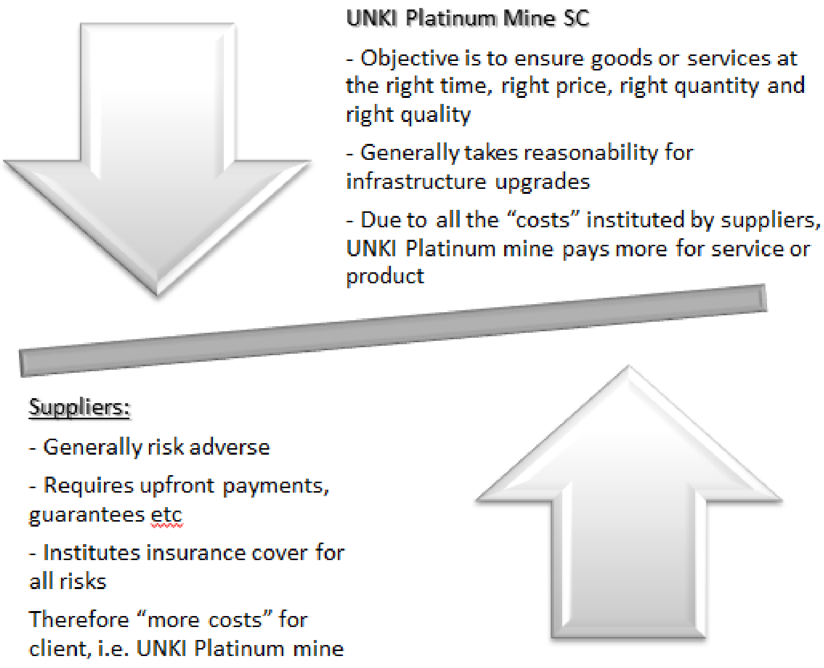
According to Tang, 2006a, 2006b; Aydin, Babich, Beil, and Yang (2009), globalisation, improved infrastructure and information technology has led supply chains to become longer and more complex, resulting in higher supply chain vulnerability, therefore selecting suppliers with the experience of operating in this vulnerability is pivotal. This is in alignment with Mr Andre Smith's statement:

> "…A supplier has to have extensive exposure to different African countries, otherwise it is advisable for an organisation to consider contracting or employing a logistic company to conduct study of each country, what can shipped, where to, and during what seasons. So if supplier has delivery lead times, they have to ensure that client is aware. The supplier has to know things like height restrictions, weight and mass restrictions, and width restrictions in certain countries because the bridges tend to be narrower…"

Furthermore, Zsidisin *et al.* (2005) argued that supply chains tend to be particularly fragile when exposed to environmental disruptions beyond their control. The interviews conducted with suppliers suggest that suppliers tend to be more risk averse when conducting business in Africa. If suppliers do not request upfront payment, they require some form of assurance in a form of insurance cover from agencies like ECIC.

There seems to be a paradoxical effect between what suppliers want and what business wants, particularly in vulnerable environments like Africa. More and more suppliers tend to take insurance cover for risks in these environments, therefore translating into more costs for UNKI Platinum mine in Zimbabwe.

Figure 6.2 Paradoxical Effect: Supplier and UNKI



Alternately, suppliers that have extensive experience within Africa, tend to be more financially stable. This point was highlighted by Mr Andre Smith. Some respondents emphasised the fact that operating in Africa is expensive for both supplier and firm.

6.4.4 Pre-existing relationship between company & supplier

It can be argued that suppliers have chances to improve their capabilities through working with MNCs; effective management of relationships to improve supplier capabilities is required. Pre-existing relationships between company and supplier were viewed by three respondents as another point that set SCRM strategy at UNKI Platinum mine apart from the rest. The themes, as highlighted in Chapter 5 that were observed from the responses are:

a) Builds trust
b) Negotiation tactic
c) Alleviates non-payment fears from suppliers

Harris and Lyon (2013) suggested that trust is shown to be built by having information on others, prior experience of working together, norms of cooperation, and sanctions exerted on those who might transgress norms of behaviour. This prior information on each other was acquired during the long relationship between Anglo American and UNKI.

UNKI Platinum mine used long relationship with suppliers to alleviate the fears they had with entering into Zimbabwe. In some cases, when suppliers demanded assurance such as upfront payment and guarantees, UNKI Platinum mine would use the long relationship as a motivation for negotiating better and more favourable deals with suppliers.

On the other hand, this research argued that the over-reliance on a particular supplier could increase certain risks. This view is supported by that of Fawcett, Fawcett, and Magnan (2013) who affirmed that high levels of trust-enabled relational embeddedness may constrain relational advantages. Furthermore, the suppliers with which Anglo American Platinum mine had long relationships posed a threat to the existing local suppliers. The mine would have been used to a certain level of service and standard of product quality, and if local suppliers do not meet the standards then the mine would not want to use the local supplier going forward.

6.4.5 Hyperinflationary issues

As mentioned in Chapter 2, Zimbabwe's official annual rate of inflation exceeded 231 million percent in 2008, quickly eroded the currency's purchasing power. Businesses still quoted prices in local currency but revised them several times a day, and this caused uncertainty in the market.

Even though Zimbabwe faced severe hyperinflation within its recent past, only three respondents discussed inflationary issues as being able to affect the supply chain risk management strategy. The themes that stand out from the responses are, as highlighted in Chapter 5:

a) Management of imports

b) Indicator of infrastructural delay

Inflation occurs in varying degrees in nearly every country in which MNEs operate, particularly in Africa. Some of the industries that used to manufacture the spare parts locally shut down and they had to be imported from other countries. According to Mr Clive Govender, inflationary challenges were used as a way of managing imports into Zimbabwe.

Inflation tends to erode the value of financial assets and make financial liabilities more attractive. Hence UNKI Platinum mine used hyperinflationary challenges as an indicator of infrastructural delay.

6.4.6 Engagement and involvement with locals

Supply chain partners must traverse an increasingly complex array of communication and coordination issues to maintain effective relationships with contracting, manufacturing, delivery, storage, and customer services. Only one respondent out of a total of 13 respondents emphasised the importance of socially engaging and involving with locals as an element that can be used to build relationships with Zimbabwe as a means of understanding the local culture.

6.5 Conclusion

The top two salient factors that emerged from the interviews were political institution knowledge and understanding national culture, addressing research questions one; and requirement of host country and need for proper pre-planning for research question two, as highlighted in Chapter 5.

It is evident from the discussion that UNKI Platinum mine possessed some level of political knowledge which enabled them to build strong relationship with the government. This was fast-tracked by the fact that UNKI Platinum mine had a dedicated board of directors and moreover they were of Zimbabwean nationality. This facilitated national culture knowledge and also seems to have had a positive impact on the cost of doing business in Zimbabwe.

This chapter answered the research questions in Chapter 3 by interpreting the results of Chapter 5 using the literature in Chapter 2 and the insights were derived from the data collected. The research objectives stated in Chapter 1 have also been met in this chapter. The major findings are highlighted in Chapter 7 as learning for MNCs intending to penetrate African countries.

CHAPTER 7: CONCLUSION

7.1 Introduction

As discussed in Chapter 1, the primary purpose of this research paper was to identify elements that contribute to a suitable supply chain risk management strategy that can be useful to any MNC intending to penetrate the African market. UNKI Platinum mine was used as a single case study to unearth learning within a real-world context, as discussed in Chapter 4.

The data was collected from nine interviewees and findings were highlighted and interpreted in Chapter 5. The top two salient factors that emerged from the interviews were political institution knowledge and understanding national culture, addressing research questions one; and requirement of host country and need for proper pre-planning for research question two.

Chapter 6 comprehensively discussed the findings in relation to chapter 2. This chapter however, emphasises the major findings of the research as well as provides recommendations to various stakeholders based on the findings. A conceptual framework for supply chain risk management in Africa is also presented.

7.2 Major Findings

Research Question 1: From an entry-strategy development and implementation perspective, these are the major findings:

The first element that MNCs intending to penetrate the Africa need to consider is to gather as much knowledge about the political landscape of the specific country before making any drastic moves. This will equip the MNC with the necessary environment know-how and will help cultivate relevant relationships with the government.

Secondly, the MNC would be well positioned if they decide to penetrate an African market with which they have prior relationships. This enables easier access into the market as the trust would have been built already from previous engagements. Africa markets seem to value relationships more as they create the necessary trust needed to do business.

Thirdly, an MNC needs to ensure that they understand the cost of doing business in that specific African market. However, having a base on what extent the MNC will go to ensures that cost of doing business is not necessarily exceeded. UNKI Platinum mine was successful in Zimbabwe because they were willing to strategise where applicable, instead of waiting for government to make the environment favourable. Furthermore, the MNC needs to be willing to contribute to infrastructural investments.

Fourthly, it is important to ensure that the MNC in the host country is seen as a national champion of the country by having board of directors separate from the corporate structure. UNKI Platinum mine employed Zimbabweans instead of expatriates to work in the company. However, this depends on the education and skills level of the locals. If skills and education are absent then MNCs have to invest in skills development to uplift the locals and create sustainability.

Lastly, the MNC must ensure that they understand the national culture of the host country; employing workers from the local population and having local board of directors also assist with fast tracking the cultural learning in a country. An understanding of national culture will equip the MNC with first-hand experience and knowledge of how to deal with the locals. Moreover, particularly operating in an unstable environment, communication needs to flow effortlessly and needs to be factual to eradicate any form of concern and fear from the investors.

Research question 2: For the supply chain risk management strategy, development and execution perspectives, the following significant findings were delineated:

Firstly, as in the corporate entry-strategy development, it is crucial for the MNC to understand the host country's requirements; these include the laws and regulations of the country. This facilitates the ease of doing business in that country and creates an environment that is favourable to creativity and innovation.

Secondly, MNCs needs to do appropriate due diligence in the form of pre-planning prior to entering any African market. This can be done by having dedicated risk management teams that focus solely on supply chain risk management. It is important for the team to comprise of diverse groupings as this stimulates innovation and creativity. Furthermore, it also ensures good building blocks for risk management and enhances alignment to common goal of the organisation.

Thirdly, MNC has to ensure that the suppliers have a wide enough African footprint and financial stability. The African footprint essentially means the experience the supplier has in the African market; this translates into supplier being flexible enough to co-exist with the MNC in the host country.

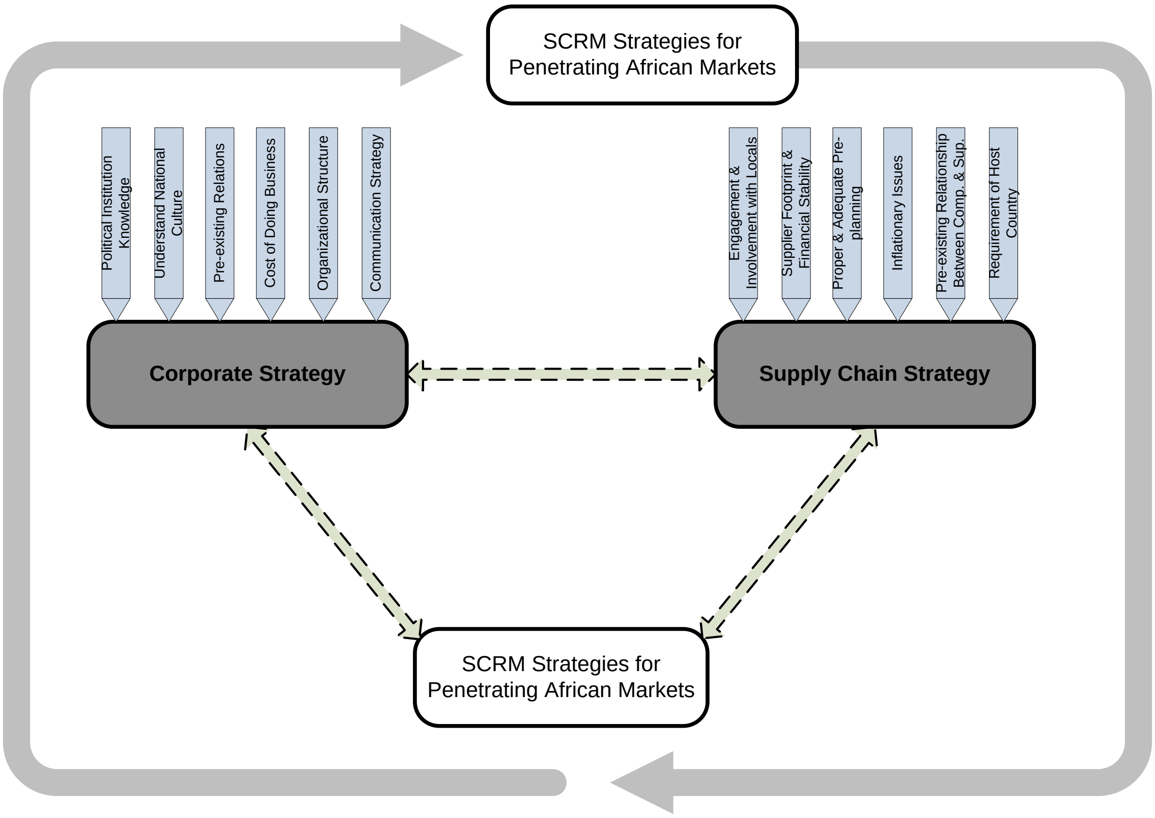
The fact that Anglo American Platinum had long standing relationship with suppliers assisted in various ways. The pre-existing relations had an advantage as the trust was already there between the organisation and the supplier. Suppliers cited the main reason for not being keen on African market, is the fear of not being paid by the organisation. However, pre-existing relations alleviates the fears that might be there. Furthermore, the relations can also enhance the MNC's bargaining power when it comes to negotiating with suppliers.

MNCs considering going into African market, need to make peace with the fact that Africa has higher chances of developing hyperinflationary issues, which affects the infrastructure of the host country. In effect, this could become a challenge for the MNCs problem, therefore MNCs are encouraged to use hyperinflationary issues as indicators of potential infrastructural delay.

Lastly, one last SCRM element for strategy development and execution is based on how MNCs engage and involve the locals in non-work activities. This is important as trust can further be built with locals and it also creates a team spirit outside work, however this overflow into the workplace.

The major findings are illustrated as conceptual framework in Figure 7.1.

Figure 7.1: Supply Chain Risk Management Conceptual Framework



7.3 Recommendations for Future Research

This case study research added value extrapolating the strategic themes from the qualitative interviews, ranking the themes and extracting major learnings from UNKI Platinum mine within the Zimbabwean context. Moving forward, the following are recommendations for future research:

- What happens when strong relationship, becomes a risky, how to manage it?
- Characterizing companies based on their adoption of different SCRM strategies?
- A multiple case study involving an analysis of not only company but also suppliers of the focal firm would be good
- Multiple case studies of different MNCs in Africa (lessons on what works and what does not)

7.4 Conclusion

This research has shown that there are various factors that should be considered when developing strategies for penetrating the African market; moreover it emphasised the elements that should be considered when developing and implementing supply chain risk management for the African context. This was derived through making use of a real-world case of a mining company, UNKI Platinum mine in Zimbabwe

The research shows that AngloAmerican Platinum investment decisions were based on more than cost-benefit returns. There was more to Anglo's case for investing in Zimbabwe. Political knowledge and organisational structure and national culture were implicitly part of AngloAmerican Platinum decision making. Political criteria have become increasingly entwined with business decisions in emerging economies in Africa where medium-to-long-term stability is questioned.

The supply chain risk management strategy that was developed and executed at UNKI Platinum mine was based on AngloAmerican Platinum knowing all the supply chain requirements in Zimbabwe prior entering the market. Moreover, this was facilitated by proper and adequate plans with the appropriate members involved in the risk management committee.

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Appendix A: Research Design

<table>
<tr><td colspan="2">Main Research Question 1: Are the strategies for penetrating Africa much different to conventional entry strategies around the world? How do they differ in these environments with starkly distinctive institutional foundations?</td></tr>
<tr><td>1.</td><td>Why do the companies move into Zimbabwe? (OR – for non-company people: Why should a company consider Zimbabwe?</td></tr>
<tr><td>2.</td><td>What are the key success factors to doing business in Zimbabwe?

Follow-up questions:

Perhaps, do organisations customize the strategies to suit Zimbabwe market? Why?

How do organisations manage to operate under the Zimbabwe geo-political climate?</td></tr>
<tr><td>3.</td><td>In what ways does mining operation in a Zimbabwe differ from South African operations?</td></tr>
<tr><td>4.</td><td>Describe the important institutions (or lack of) which impacted on the ability to operate in Zimbabwe? Are the institutions formal or informal?</td></tr>
<tr><td>5.</td><td>Are there instances where strategy was determined, limited or restricted by the institutions environment?</td></tr>
<tr><td>6.</td><td>What type of organisational structure is required within organisation to support the expansion into Zimbabwe?</td></tr>
<tr><td>7.</td><td>How did management maneuver around the cultural distinctions of the Zimbabwean operation?</td></tr>
<tr><td colspan="2">Main Research Question 2: Presuming alternative strategic approaches in Africa are adopted in general, what supply chain risk management strategies do organisations adopt in new Sub-Saharan African markets?</td></tr>
<tr><td>1.</td><td>How do you define supply chain risk management?</td></tr>
<tr><td>2.</td><td>What factors contributed to the development of supply chain risk management</td></tr>
</table>

	strategy in Zimbabwe?
3	How has your company created a responsive supply chain? I.e. through information sharing, suppliers' logistical infrastructure, reducing distance between organization and supplier etc., what are the risks associated with these elements.
4.	What supply chain challenges do you experience and how are they managed?
5.	What sourcing risks do you encounter and how are they controlled? Are the risks always anticipated? Are they similar to risks in South Africa? If not, what contributes to the difference?
6.	How has supply chain contributed to the success of the mine operation?
7.	Are there foreign suppliers in Zimbabwe? How are they locally accepted? Can suppliers set up business anywhere in Zimbabwe? What restrictions or limitations are there?
8.	Does your organisation access raw materials and components of good quality locally? Is there a deep network of suppliers? Is organisation in your supply chains able to enforce contracts with key suppliers?
9.	What key determinants are used in selecting suppliers for the UNKIUNKI operation? I.e. price, quality, reliability etc. and how are the determinants prioritised? In other words, what selection criterions are put in place? What risks are associated to supplier selection criterion and how were these evaluated?
10.	Cultural, language and legal differences can constitute risk, how have these elements been managed to ensure sourcing effectiveness in Zimbabwe?
11.	Information Technology is generally considered as a key enabler of effective supply chain management. Has this been true in the UNKI story?
12.	How have the institutional frameworks affected supply chain strategic decisions? Follow-up questions: *How do the Zimbabwe regulations impact decisions pertaining to selection of suppliers?*

	How strong are the logistics and transportation infrastructures in the country? *Are there global logistics companies set up locally?* *How strong are the logistics and transportation infrastructures in the country?* *Are there global logistics companies set up locally?*
13.	Are there instances where supply chain risk management strategy was determined, limited or restricted by the institutions environment?
14.	Are there examples where supply chain risk management strategy was able to influence institutional frameworks in Zimbabwe?
15.	What is unique about the process followed when developing supply strategies and agreements in Zimbabwe?
16.	What internal and external constraints were considered when developing supply strategy?
17.	Describe which risks are most likely to affect your supply chain in the context of Zimbabwe?
18.	In your supply chain, what are those risks that are not easily measurable? And why?
19.	Describe the risk management tools used in your supply chain? Which ones are effective particularly in the context of Zimbabwe?

Appendix B: Consent Letter

P O BOX 665

BASSONIA, 2091

<Date>

Dear _______

SUPPLY CHAIN RISK MANAGEMENT AT UNKI

I am doing an MBA with the University of Pretoria's Gordon Institute of Business Science (GIBS). As part of my studies, I am conducting research on the "supply chain risk management" at UNKI mine.

The research paper is aimed at exploring and assessing supply chain risk management approaches used in mining multinational corporations operating in emerging markets. The primary objective of this research is to contribute to the development a supply chain risk management framework that will assist mining multinational corporations planning to penetrate dynamic markets in Africa.

For this process, I would like to interview you to gain insight of the process and decisions that are/were made with regards to supply chain risk management. The purpose is to build a theory pertaining to what supply chain risk management decisions are to be made by multinational corporations when entering into emerging countries, particularly in Africa.

The interview is expected to last about an hour depending on your availability and the amount of information you can share on the subject. **Your participation is voluntary and you can withdraw at any time without penalty**. In line with normal practice, all data will be kept confidential. If the findings of the research are used in the future, it will be for academic purposes only.

Please do not hesitate to contact my appointed supervisor Dr Lyal White if you have any concerns. As an indication of your informed consent to the interview, kindly sign the designated space as a participant in the research.

	RESEARCHER	SUPERVISOR
Name:	Tshidi Mndzebele	Dr Lyal White
Email:	tshidi.mndzebele@angloamerican.com	whitel@gibs.co.za
Phone:	011 638 3285 / 076 870 2425	011 771 4000

SIGNATURE OF PARTICIPANT: …………………………DATE:…………………………..

SIGNATURE OF RESEARCHER:…………………………DATE:…………………………

Appendix C: Consistency Matrix

Research Question	Literature Review	Data Collection Tool	Analysis
Are the strategies for penetrating Africa much different to conventional entry strategies around the world? How do they differ in these environments with starkly distinctive institutions?	Henisz & Zelner, 2003, Luo, 2004 Puck, Rogers, & Mohr (2013) Hoskisson, Eden, Lau, & Wright (2000) Khanna, Palepu and Sinha (2005) Khanna & Palepu (2010) Peng and Heath (1996) Kamau (2011) Bashir, Xu, Zaman, Akhmat and Ikram (2013)	Face to face interviews. Interview Questions: 2, 4 & 5	Content-analysis on open-ended questions
Presuming alternative strategic approaches in Africa are adopted in general, what supply chain risk management strategies do organisations adopt in new Sub-Saharan African markets?	Trent & Roberts (2010) Szuster (2010) Trkman & McCormack (2009) Hoskisson, R.E., Eden, L., Lau, C. M., & Wright, M. (2000) Li, X. & Barnes, I. (2008). Colicchia and Strozzi (2012) Blackhurst, Craighead, Elkins, & Handfield (2005) Gaudenzi and Borghesi (2006)	Face to face interviews. Interview Questions: 1, 2, 13, 14, 15 & 19	Content-analysis on open-ended questions