IMPACT OF EXTERNAL ENVIRONMENT ON ORGANISATIONAL PERFORMANCE:
THE CASE OF FERROCHROME INDUSTRY IN ZIMBABWE

REUBEN ZENGENI

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SUPERVISOR: DR. A. MAKOCHERANWA (Ph.D)
DECLARATION

Student Declaration: -I, Reuben Zengeni, do hereby declare that this dissertation is the result of my own investigation and research, except to the extent indicated in the acknowledgements and references and by acknowledged sources in the body of the report, and that it has not been submitted in part or in full for any other degree to any other university or college.

.............................................. ..............................................
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Supervisor Declaration: -I, Albert Makochekamwa do hereby confirm that the work reported in this dissertation was carried out by the candidate under my supervision as the University supervisor. This dissertation has been submitted for review with my approval as University Supervisor.

.............................................. ..............................................
Supervisor’s signature Date
DEDICATION

This study is dedicated to my wife Jesminah and my five children, Kudzai Christine, Tadiwanashe, Rumbidzai, Isheanesu and Nyasha Christian.
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First of all I would like to thank the most merciful, the most grateful God, from whom I receive the support and wisdom I need. He gives me the power and strength to overcome all the challenges which I face in my life.

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To the University of Zimbabwe Graduate School of Management staff and lecturers, thank you all for the support during the short time we worked together for my educational enrichment and growth.

To The Almighty God be Glory and Honour.
ABSTRACT

Performance in the ferrochrome industry has been subdued with most organisations in the industry running unprofitably and some closing shop due to economic challenges. The main objective of this study was to identify those economic factors that impact on organisational sales performance and to make management recommendations to address the challenges.

A number of theories on the economic variables as discussed by a number of authors were reviewed. The research was quantitative and the survey study strategy was adopted with five out of nine companies in the industry targeted for the survey. Questionnaires were distributed to the participants whose response rate was just average mainly due to the problems in this industry, where only five out of nine companies are running and those which are running have their staff on short working hours as a cost cutting initiative.

The study results showed that, out of the ten identified independent variables, only three were statistically significant and only one general factor (company size) was established to be statistically significant. The three variables were demand, recession and interest rate. The research findings revealed that demand had a positive correlation with performance whilst interest rate and recession had negative correlation with performance and this supported the hypothesis made on the two variables. It was recommended that a company should regularly scan its external economic environment and identify those variables that impact on sales performance so as to formulate strategies and policies appropriately in line with opportunities or threats identified.

Key words: External Economic Environment, Impact, Sales Performance
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CHAPTER 1

1. INTRODUCTION TO THE STUDY

The business manager of today operates in a fairly dynamic environment. Changes in the environment have been rapid and unpredictable. Furthermore, economic variables in this environment have been noted to be complex both in form and impact on the practice of business in the world. On the other hand, consumers and clients have shown complex behaviors in both the local and international markets. The most dramatic changes have been those exhibited by competitive pressures. In order to survive, competitors have been applying and adopting one strategy or the other so as to adapt to the unpredictable and dynamic nature of the business environment (Olarewaju, 2012).

In the new economic environment that has emerged as an impact of the recent Global Financial Crisis, the complexity of each industry forms a demanding context that affects consistently both the internal and external environment of organizations (Koumparoulis, 2013). As a result, the majority of the firms need to maintain their competitive advantage. Firms have to constantly increase the value of their products offered to clients in order to sustain their competitive advantage and being profitable so as to exist.

Every firm is affected by external environment such as the market, client and competitors, and also the internal environment which includes the employees of the firm, contractors, sub-contractors, suppliers and so on (Koumparoulis, 2013). The business’ external environment, also referred to as the operating environment is defined as conditions, entities, events, and factors surrounding an organisation that influence its activities and choices, and determine its opportunities and risks (BusinessDictionary.com).

The situations within organisations have effects on organizational activities, mainly because the organisation interacts with the larger environment and society in which it operates. The business environment in Zimbabwe is quite complex and rapidly changing and it is imperative that all organisations (small or large) pay attention to the business
environment during formulation and implementation of policies and strategies for them to survive and grow. In the modern business environment, company performance is centered on a number of factors, for example, low-sales, high production cost, low capital utilisation, shortage of foreign currency to procure inputs, power supply shortages, and poor quality of services and goods, among others (Kennerley & Nelly, 2003).

Organisation performance refers to the achievements of an enterprise with respect to some criteria such as goals and objectives (Machuki & Aosa, 2011). Within corporate organisations, there are three primary outcomes assessed: financial performance, market performance and shareholder value (Richard, et al., 2008). Organisations that align their strategies with the requirements or demands of their environment tend to outperform those organisations that fail to achieve such alignments.

Business organisations perceive the environment as opportunities and threats presented by the external environment variables such as political, economic, socio-cultural and technology (PEST) factors. Nevertheless, other factors which operate in the micro and intermediate business environments are also important, hence environmental scanning of the macro-environment becomes an important issue as it in turn affects the former two environments. Organisational sustainability in relation to its corporate objectives and goals is only guaranteed by good performance (efficiency, effectiveness and responsiveness). Due to the fact that the business environment is fast changing, environmental scanning gives manager and executives of organisation a chance to anticipate future opportunities and problems.

1.1 Background

1.1.1 Overview on Ferrochrome Industry

The Zimbabwean ferrochrome production sector is dominated by four main players, with Zimbabwe Mining and Smelting Company (ZIMASCO) and Zimbabwe Alloys (ZimAlloys) being the biggest and oldest producers. Zimasco has an installed capacity of 220,000Mt per annum but is currently producing only 180,000Mt due unavailability of furnace 2 which was gutted by fire in July 2006, whilst ZimAlloys has installed capacity of 215,350
Mt per annum (TheHeraldNewspaper, 2014&Chirasha, 2011). ZimAlloys is one of the oldest ferrochrome plants in Africa and it was established in 1949, whilst Zimasco was the second to be built in the country and was established in 1953 (Chirasha, 2011). The other two smaller producers are MaranathaFerrochrome and Oliken Ferroalloys which have not been operating for more than two years now due to economic challenges.

Other new players that have recently opened up include Afrochine, WelMining, CINA, Monachrome and Yin An Corp & Xinyu. Only five out of the nine ferrochrome companies are operating and the expected production is 370,000MT against an installed capacity of 700,000MT (ParliamentofZimbabweReport, 2013). To note is the fact that all these new players except Monachrome are Chinese owned (Chitambira, et al., 2011). Afrochine Private Limited is a subsidiary of Tsingshan Iron and Steel Group of China, (the second largest stainless steel producer in China) and has the potential to become the largest producer of ferrochrome in Zimbabwe. The company is already mulling setting up a 600 to 1000 megawatt power generating plant for its own consumption as it moves towards a sustainable and uninterrupted power supply (TheHeraldNewspaper, 2013).

Zimasco and ZimAlloys own the largest number of chrome ore claims along the Great Dyke, the largest source of metallurgical grade chromite ore in the world (Chirasha, 2011). The Dyke is the mineral ‘hub’ of the country and it spans 550kms with a width varying from 2kms to a maximum of 11kms. The Dyke is a strategic economic belt which has very large commercial deposits with the biggest miners in the country located in this very rich mineral vein (Makore & Zano, 2012). Other large commercial deposits within the Dyke include platinum group metals (PGM), nickel, cobalt, gold and copper. Chromite seam deposits span the entire Dyke and mining activities happened throughout the Dyke in sympathy to the seams. Figure 1.1 shows the distribution of chrome ore reserves in the Dyke.
The two companies (Zimasco and ZimAlloys) own almost 70% of all claims which have high-grade ores with a reducible oxide content of between 58% and 62% (ParliamentofZimbabweReport, 2013). Zimbabwe has the largest reserves of chrome ore in the world after South Africa and the three countries Kazakhstan included jointly own about 90% of all known chrome ore reserves in the world (Chirasha, 2011), see Figure 1.2. Unique to Zimbabwe is the occurrence of both podiform and stratiform types of chrome ores that are exploitable for ferrochrome production (Chitambira, et al.,
The podiform ores are however quickly running out, and attention has turned to utilization of the friable stratiform ores, which tend to be more friable and thus require pre-treatment prior to smelting in conventional submerged electric arc furnaces (Chitambira, *et al.*, 2011). The preferred and applicable pre-treatment process is the pelletising and sintering process.

Most of the investment in the country’s ferrochrome industry has been in mining sector. There has been relatively subdued investment into the value addition ferrochrome smelting process for a long time. Ferrochrome smelting capacity expansion in the country has remained largely sluggish, relative to other minerals such as gold and platinum that have seen significant cash injections (Parliament of Zimbabwe Report, 2013).

**Figure 1.2 World Chrome Ore Estimated Reserves**

*Source:* ICDA Report 2013
1.2 Statement of Problem

The ferrochrome industry in Zimbabwe has remained restrained with investors shunning the energy and labour intensive smelting operation. The sector has suffered from reduction of investment and high operating costs mainly driven by electricity (Parliament of Zimbabwe Report, 2013). On the other hand, the global trend on ferrochrome prices has been on a downward trend for some time now and this has put pressure on Zimbabwean producers to reduce overall production costs so as to maintain viability in the industry. The sector suffered a major setback with prices dropping to their lowest levels after the 2008/2009 Global Financial Crisis (GFC). Prices dropped from an all-high pre-crisis figure of about US$2.00 per pound to as low as US$0.70 per pound post-crisis (Chris Molefe, 2012).

The recovery after the GFC has been sluggish and painful for most Zimbabwean producers. The depressed market situation which was offering selling prices which were way below delivered cost of US$1.00 per pound plus, saw producers like ZimAlloys and Oliken Ferroalloys closing shop in 2009 and 2011 respectively, followed by Maranatha Ferrochrome in 2012. The external economic environment was so harsh that even the remaining operating sole producer Zimasco, was forced to scale down operations, and had to reduce capacity to 40% in late 2012 (Daily News Newspaper, 2012).

The country’s advantage over other foreign producers, notably the lumpy ore is quickly being depleted as the podiform surface open pit table lumpy ores are running out. Huge capital outlay is required to access the deeper underground ores. Unfortunately, financial institutions (banks) in the country have been having serious liquidity challenges and distressed companies (including ferrochrome companies) have failed to access funds. Nevertheless, considerable attention is being paid on the upgrading and processing of stratiform friable ore into fines concentrates and a number of investors including Bunday Technical and Turnoff Investment (both Chinese companies) have invested in this sector already (Mineral Marketing Corporation Zimbabwe, 2014). This sector now appears to be the lifeline of the ferrochrome industry in a country which has for a long time been relying heavily on high grades lumpy ore.
Inadequate power supply has been a major limiting factor in the growth of the ferrochrome industry in Zimbabwe. As stated earlier, the ferrochrome production process is highly energy intensive, consuming approximately 3333-3400 kWh per ton of alloy produced for very efficient furnaces in countries like India (Kapure, et al., 2007). Whereas in Zimbabwe, consumption is much higher at 3700-4000 kWh per metric ton of product, with the efficiency varying by ore grade, operating conditions and production process (Gandhi, 2010). Electricity cost alone constitutes approximately 34% of the total ferrochrome production cost (Kapure, et al., 2007) for the most efficient furnaces and is much higher for the less efficient ones. Power tariffs vary from country to country but have been on an upward trend in almost all the regions in both Africa and Asia. See Figure 1.3 below.

**Figure 1.3 Globally Rising Power Prices**

*Source: Merafe Resources Limited Integrated Annual Report, December 2013*
Unlike relatively larger producers such as South Africa and Kazakhstan, Zimbabwe is far from the major markets and is landlocked. This amounts to a huge distribution cost component on the product rendering the delivered cost much higher than its competitors. Zimbabwean producers, therefore, have to reduce the ex-works cost of production in order to compete with producers who are geographically closer to the markets. This can be achieved through improvement in efficiencies (power, Cr recoveries) through aggressive process improvement initiatives (Chitambira, et al., 2011).

The management problem therefore is to identify those factors that have an impact on the ferrochrome industry performance in Zimbabwe and suggest ways on how to mitigate against them.

1.3 Research Objectives

1.3.1 Main Objective

The study’s main purpose is to establish the main economic factors that impact on the ferrochrome industry’s sales performance. The research seeks to assess whether the external economic environment has an impact on the performance in the ferrochrome industry.

1.3.2 Specific Objectives

- To establish the economic variables which have an impact on the sales performance of the ferrochrome industry.
- To establish the extent to which economic variables have affected sales performance in the ferrochrome industry.
- To ascertain the challenges being faced by the ferrochrome industry in dealing with its economic external environment.
- To provide recommendations as possible solutions to the challenges cited.
1.4 Research Questions

- What are the main economic variables that impact the sales performance of the ferrochrome industry?
- How has the economic variables impacted on the sales performance of the ferrochrome industry?
- What challenges were experienced by the ferrochrome industry in dealing with the economic external environment?
- What are the recommendation being put forward to deal with the identified challenges?

1.5 Research Hypothesis

The external economic environment has an impact on organisation performance.

1.6 Justification

The ferrochrome industry in Zimbabwe has been subdued and under siege for a long time now with some smelters closing shop due to viability problems. The industry has not performed to expectation since the Global Financial Crisis of 2008/2009 period. This is despite the fact that Zimbabwe has the largest reserves of chromite ore in the world after South Africa. This is also despite the fact that Zimbabwe is the only country to have both the stratiform and podiform types of chrome ores that are exploitable for ferrochrome production (Chitambira, et al., 2011).

Organisation performance in the ferrochrome industry in Zimbabwe has not been profitable mainly due to the harsh and unfavorable external environment, hence this study will analyse the economic environment and its impact on the organisational performance. The researcher singled out the economic environment because of the fact that most factors that impact on the organisation performance are of an economic nature. However, the researcher took cognizance of the fact that other factors like political, technological and social have differing impacts on organisational sales performance, but in this study it was felt to lesser extent.
Furthermore, it is important to note that organisational behaviour is mostly economic in nature and management decisions are guided by economic decisions based on some proven theories such as demand, supply, trade cycle, banking and money, income, employment, interest rates and government regulations. The business unit can only survive and thrive if the environment desires its output of service and goods and is also prepared to approve of and endorse it activities (Fernando, 2011). It therefore follows that most of the management decisions are in response to microeconomic and macroeconomic environment (Fernando, 2011), making this an interesting subject for research.

1.7 Scope of Research

The study was primarily on the impact of the external business environment on organisational sales performance in the ferrochrome industry in Zimbabwe focusing on the economic environment. The researcher focused on those economic factors that have impact on business performance, in this case, market performance with respect to sales. Factors that were considered in this research were, demand, supply, money and banking, economic growth and development, income and employment, trade cycles, recession and government regulations.

The researcher collected data using cross-sectional questionnaires from respondents of management teams from the following ferrochrome smelters; Zimasco, ZimAlloys, Maranatha, Olikken Ferroalloy and Afrochine. The other small smelters which are wholly owned by Chinese were not included in the survey because of the difficulties in accessing information and support on the survey from Chinese management, hence only Afrochine was sampled.

The research was conducted over a period of about 5 months and the questionnaires were administered on the respondents who were given a period of two weeks to complete and return. Questionnaires were sent to respondents as hard copies and also electronically via email.
1.8 Dissertation Outline

The outline of the dissertation shall be as follows,

**Chapter 1: Introduction**

Chapter one introduces the kind of the problem that led to the study. It gives brief background on the ferrochrome industry in Zimbabwe and the problems the industry is facing. The chapter also encompasses the research objectives, research questions and scope of research.

**Chapter 2: Literature Review**

Chapter two will explore the relevant literature done by different authors on the variables both dependent and independent. The chapter covers different theories and how they impact on organisation performance.

**Chapter 3: Research Methodology**

Chapter three focuses on the research methods used to collect the data. It covers the research methodology, approach, sampling techniques and how data was collected and how it was analysed.

**Chapter 4: Data Analysis, Findings and Discussion**

The chapter summarises and synthesises the data into useful information which can easily be interpreted through graphs and tables. The information is discussed and interpreted in relation to the research objectives and hypothesis setup in the study.

**Chapter 5 Conclusion, Recommendations and Further Research**

Chapter five will conclude the study and suggest recommendations. It sums up the whole research and gives management recommendations based on the research results.
1.9 Chapter Summary

This chapter has introduced the area to be studied and it has set the tone for this important and interesting study. The introduction has shown the uncompetitiveness in the local ferrochrome industry despite the fact that, other producers next-door, in South Africa are operating profitably. It becomes imperative that Zimbabwean producers manage their external economic environments with emphasis on the cost platforms (some of the costs were distorted from inception of the multicurrency system in the country). This is important in order for the producers to survive and grow, seeing that the depressed international ferrochrome prices which have been prevailing in the market for almost half a decade will not improving as was expected by most producers. The study will look at, and analyse the economic factors that are impacting on the organisational sales performance.
CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This research chapter analyses some literature and articles that are of relevance and related to the study. The study’s main focus is on the impact of the external economic environment on organisation performance. The purpose of the study is to establish the relationship between the external environment in particular economic environment and organisational sales performance measured by market performance in relation to sales. Due to the fact that a business does not operate in vacuum, its surroundings which are composed of an infinite set of elements outside its boundaries; associations; other organisations; competitors and other players all tend to have an influence on the direction (growth, decline or idleness) the organisation will take.

The external environment of an organisation is the totality of factors outside the organisation that are taken into consideration by an organisation in its decision making (Olarewaju & Folarin, 2012). A business is influenced collectively and individually by these factors (Fernando, 2011). Therefore, it is imperative that each organisation studies and understands such factors so as to anticipate its opportunities and threats. The modern business environment is more dynamic and changes in the environment are rapid and unpredictable. The form and the impact of economic variables on the practice of business have been noted to be more complex than before in the world-over. Furthermore, consumers and clients have also shown complex behaviors in both the local and international markets (Fernando, 2011). Distinguished and dramatic changes have been those exhibited by competitive pressures on business. In order to survive, competitors have been applying and adopting one strategy or the other so as to adapt to the unpredictable and dynamic nature of the business (Olarewaju & Folarin, 2012).

Consequently, organisation performance tends to be influenced to a greater extent by both internal and external environment in which the business operates. Performance is
the source of influence to the actions taken by organisations and to the degree to which a company achieves its goal and its stated objectives. There is need for organizations to adjust to changes in the environment in order to be effective and must adapt to their environment if they are to remain viable.

The researcher has singled out the economic environment as the focus for the study, not because other factors (political, technological and social) are not relevant but because the economic factors tend to overshadow all other factors in this industry. The economic factors to be considered in this research are;

- Demand
- Supply,
- Banking and money,
- Interest rate
- Economic growth and development,
- Income
- Employment,
- Trade cycles,
- Recession
- Government regulations

Other factors like, marginal utility, inflation and the exchange rate did not form part of this study because of two main reasons, firstly, the researcher felt they were not so significant in the area of study and secondly, time constraints which could not allow the researcher to fully analyse all the factors.

2.2 Definition of Phenomenon

The external business environment or the operating environment is defined as conditions, entities, events, and factors surrounding an organisation that influence its activities and choices, and determine its opportunities and risks (BusinessDictionary.com.).
While organisational performance refers to the achievements of an enterprise with respect to some criteria such as goals and objectives (Machuki & Aosa, 2011). Corporate organisations have three primary outcomes which measure organization performance namely; financial performance, market performance and shareholder value (Richard, et al., 2008). Performance is a crucial and critical objective of any organisation and it is generally accepted, that the structure and decision making in an organisation is influenced by environmental complexity and volatility (Olarewaju & Folarin, 2012). Organisations that align their strategies with the requirements or demands of their environment tend to outperform those organisations that fail to achieve such alignments. Fernando (2011), stated that the business and its environment are mutually interdependent, interacting with one another continuously.

2.3 Underpinning Theory

The underpinning theory is a strategic management theory and based on a concept that an organisation is an existing entity that has an external environment which it interacts with on a continuous basis. Machuki & Aosa (2011) argued that within the organisational theory, organisations have been conceptualised and researched as open systems engaging in transactions with their environment. It is this environment which shapes the organisation to an extent that it affects its performance. The organisation therefore does not have full control over its external environment but can constantly monitor and scan it (Olarewaju & Folarin, 2012).

A business enterprise is basically an economic unit which organises its activities within the market system with the objective of making profit. Its behaviour is mostly economic in nature and management decisions are guided by economic decisions based on proven theories such as demand and supply, trade cycle, income and employment, banking and money, interest, economic growth and development and recession. The behaviour is also influenced by other general factors such as company structure, size and ownership. The business unit can survive and thrive if and only if the environment desires its output of service and goods and is also prepared to approve of and endorse
it activities (Fernando, 2011). It follows that most of the management decisions are in response to microeconomic and macroeconomic environment (Fernando, 2011).

Wang (2005) viewed organisational performance as a theme in strategic management research. Machuki & Aosa (2011) described performance from three perspective; theoretically because effectiveness of strategies is tested by level of performance they cause; empirically because there are many constructs that have been employed to capture performance, and marginally as a measure of quality of decisions that managers make on a day to day basis.

Therefore, organisation performance is a function of its environment and can be expressed as;

$$\text{OP} = f(\text{E, P, T, S} \ldots \ldots \text{U})$$ (Olarewaju, 2012)

Where,

- $\text{OP}$ = organisational performance
- $\text{E}$ = economic environment
- $\text{P}$ = political environment
- $\text{T}$ = technological environment
- $\text{S}$ = socio-cultural environment

A theory of organization-environment interaction was developed to facilitate empirical research, and this study aims to define the components and dimensions of the external economic environment that have an impact on organisation performance (Machuki & Aosa, 2011). As a result a broader understanding of the environments in which organizations operate is vital for the development of appropriate and successful strategies, with equally positive implications for corporate performance (Machuki & Aosa, 2011).

Several researchers have done studies on the impact of external environment on organisation performance mainly in the food and beverage industry but such studies
were of a broad nature and did not concentrate on one single PEST factor like in this paper where the economic environment is the focal point. Figure 2.1 shows the theoretical framework developed for the fast food industry.

![Figure 2.1 Theoretical Framework for Food Industry](image)

**Source**: Ijaz-Ur-Rehman & Mashhadi, (2012)

### 2.4 Importance of the Subject

This subject presents an opportunity for an in-depth analysis hence understanding of the impact of the external economic environment on organisational sales performance. The subject of research also assesses the relationship between the independent and dependent variables and also the influence of the general factors like organisational factors (size, structure and ownership) and people factors (skill, education, experience) on this relationship.
2.5 Existing Frameworks and Key Concepts

An existing framework is that organisation performance is affected by factors in its external environment. These factors all contribute to organisation performance, these are environmental, organisational and people factors which all contribute towards creation of an organisational climate and an individual behaviour which leads to organisation performance see Figure 2.2 below.

Hansen & Wernerfelt (1989), argued that organisational practice help organisation to select a good economic environment to operate from, furthermore good performance helps organisations to create and maintain a good climate. While this study is focussing on economic environment it is important to note that a number of factors do work together towards organisation performance.

Economic environment has been selected as the independent variable because according to (Fernando, 2011), the economic environment influence the business environment. He further explained that the economic environment consists of economic system, macroeconomic scenario, financial system, economic policies, economic legislation nature of demand for goods and services, market segment and so on.

Ogundele (2005) explained that the economic environment is the one that determine and define opportunities for organisation because an expanding economy provide operational scope for organisation existence and for establishment of new ones. Machuki & Aosa, (2011) stressed the need to scan and asses the environment for subsequent match of opportunities with organisational capabilities and managerial desire. They went on to express the importance of understanding the environments in which organisation operate for the development of appropriate and successful strategies with equally positive implications for corporate performance (Machuki & Aosa, 2011).

Organisation performance according to Richard et al. (2009) is described as the real output measured against the intended or expected output. Although the firm’s performance can be measured through three main areas namely, financial performance,
product market performance, shareholder return; the researcher selected product market performance with emphasis on sales (Olarewaju & Folarin, 2012).

Figure 2.2 Determinants of Firm Performance

Source: (Hansen & Wernerfelt, 1989)

2.6 Discussion of Key Variables

There are two main variables discussed in this study and these two are dependent and independent variables. According to Saunders, et al., (2009), a dependent variable is
one that changes in response to changes in other variables, while an independent variable is the one that causes changes in a dependent variable. One dependent variable was identified in this research, which was organisational performance and ten independent variables were singled out as the main ones that influence the dependent variable in this study.

The researcher also took cognisant of the control variables which varied from organisation to organisation, but in this research the control variables were to do with company size, age and ownership.

**Main hypothesis: External economic environment has an impact on organisational sales performance.**

### 2.6.1 Dependent Variables

#### 2.6.1.1 Organisation Performance

The concept of organisation performance is common in the academic literature but its definition is difficult mainly because of many meanings (Gavrea, *et al.*, 2011). Richard, *et al.*, (2008) explained that few studies have used consistent definition and measures and in most cases the definition used has been assumed. New definitions came about as more and more theories were being developed. The latest theories supported the idea of an organisation being that which achieves its performance objectives based on constraints imposed by the limited resources and the environment (Gavrea, *et al.*, 2011).

Organisation performance is the dependent variable of interest in this research, and it is the main concern of any area of management (Richard, *et al.*, 2008). According to Hussnain, *et al.*, (2007), organization performance includes multiple activities that help in establishing the goals of the organization, and monitor the progress towards the target. It is used to make adjustments to accomplish goals more efficiently and effectively. Organizational performance is what business executives and owners are usually frustrated about. According to Hussnain, *et al.*, (2007), organisational performance
results are achieved more due to unexpected events and at times good fortune rather than the efforts made by the employees.

Given the multidimensionality issue of the organisation performance (Richard et al. 2009), it is very difficult to choose how to quantify the organisation performance. This has been a major challenge for scholar and practitioners, thus any single index may not be able to provide comprehensive understanding of performance relationship (Machuki & Aosa, 2011). A review of existing empirical studies reveals that there are three possible strategies employed in quantifying organisation performance. First group of studies choose to use one measure of organization performance as dependent variable. The second strategy involves a static comparison between multiple models, each one having a different dependent variable as proxy for organization performance and the third possibility is to construct aggregated measures of organization performance (Florian, 2013).

Regardless of the employed strategy, measures of organization performance target consists of (a) shareholders return (total shareholder return and economic value added); (b) market performance (sales, market share); and (c) financial performance (profits, return on asset, return on investment) (Richard, et al., 2008). However, Florian, (2013) urged that organisation performance is best revealed by economic performance and not by accounting performance. In addition, he expressed that literature on organization performance is unanimous in recognizing the biases introduced by using accounting measures of performance because of different accounting practices and standards. Furthermore, accounting measure of firms’ performance are limited by the fact that they reflect past performance and consequently using them for forecasting future performance is limited (Florian, 2013).

Performance in the ferrochrome industry like any other industry in Zimbabwe has been affected by a number of factors which have been exogenous to organisations in this industry.
2.6.2 Independent Variables

2.6.2.1 Demand

The two principal factors of demand and supply affect the functioning of any business model. The demand according to Wilkinson, (2005) is the will and ability of consumers to purchase a particular commodity and there is generally an inverse relationship between the quantity demanded and the price charged and this is customarily shown in the downward-sloping demand curve.

A major market shakeup across the world towards the middle of 2008 unleashed by the credit crisis in the western world caused economic upheaval (Gandhi, 2010). The global demand for stainless steel dropped sharply during the slowdown. The market for ferrochrome, which finds 90% of its use in stainless steel manufacturing, contracted severely (Gandhi, 2010). Ferrochrome prices collapsed from an all-high pre-crisis figure of about US$2.00 per pound to as low as US$0.70 per pound (Chris Molefe, 2012). Chitambira, et al., (2011) in their paper explained that the ferrochrome consumption fell by 3% in 2008, in year-on-year terms, this was due to reduction in orders by major Asian and European customers in an attempt to run down inventories as the demand from the end-users declined sharply. Major producers were forced to reduce or cut on production in response to the weakening demand and the falling prices. However, China stood firm and appeared unshaken.

The major suppliers of the chrome ores and concentrates who hold more than 95% of the world’s chrome reserves and about 90% of the world resources are South Africa, Khazakhstan and Zimbabwe (Gandhi, 2010). Despite the fact that China does not have significant reserves of chrome ores, in 2012 China overtook South Africa to become the largest producer of ferrochrome in the world (Cooke, 2012), with South Africa still being number one exporter of chrome ores in the form of concentrates to China. This created a geographical shift in the demand-supply equation of ferrochrome (Gandhi, 2010). China accounted for 36% of world’s 10 million metric tons produced in 2012 (d'Harambure, 2013), while South Africa produced 32% (Chris Molefe, 2012), making China the biggest consumer of chrome ores and also the largest producer and
consumer of ferrochrome in the world, see Figure 2.3 for the trends. Furthermore, 92% of the total chrome ores and concentrates traded in the world from January 2013 to September 2013 landed in China (d’Harambure, 2013). The trends have persisted as South African producers continue to face power shortages due Eskom Holding’s failure to generate enough electricity for the country.

The increased demand for stainless steel in China and India has resulted in a higher ferrochrome demand, which created supply deficiency, which instead of driving prices up, has seen an increase in ferrochrome production in China for domestic consumption (Gandhi, 2010). According to Muhammad (2013) demand for ferrochrome closely reflected the trends in the stainless steel sector in China. China’s capacity and capability to increase production of ferrochrome at a much lower production cost for its domestic market than most producers in the world was driven by cheaper source of ores in the form of UG2 concentrates from South Africa and high grade lumpy ores from Turkey, Oman and Albania (Muhammad, 2013). The self-sustaining scenario in China has kept the prices of ferrochrome relatively lower than anticipated in comparison with the demand in stainless steel sector and this has affected all local producers.

Hypothesis: Demand has a positive impact on organisational sales performance

2.6.2.2 Supply

Wilkinson (2005) defines supply as the ability of the business to provide for the demand of consumers. He further explained that it is the cost of production that determines the supply relationship which is a direct one between the quantity supplied and the price offered. It follow that supply of product will continue to increase if the price goes up.

According to Gandhi (2010) the increased demand for stainless steel in China and India has resulted in a higher ferrochrome demand and consumption, which created supply deficiency, which instead of driving prices up, has seen an increase in ferrochrome production in China for domestic consumption. The supply of ferrochrome from Zimbabwe has been to a mere 370,000MT against and installed capacity of 700,000MT
(Parliament of Zimbabwe Report, 2013) and this has not been felt because of the extra capacity in the global market.

**Hypothesis:** Supply has a positive impact on organisational sales performance

![Figure 2.3 Demand for Ferrochrome and Stainless Steel Production](image)

**Source:** Merafe Resources Limited Integrated Annual Report, December 2012

### 2.6.2.3 Banking and Money

Scholasticus, (2010), expounded that banking facilitates, monetary and fiscal policies that affect business also affect the customers of the business, and money in circulation dictates the purchasing power of the consumers. Okoye & Eze (2013) urged that, the banking facility dictates the borrowing capacity of the business as well as government to enable them to embark on investment and development activities. Banks play a
financial intermediation function; a process through which financial institutions transfer financial resources from surplus units of the economy to deficit ones (Abubakar & Gani, 2013). According to Subramanaya (2006), banks include private banks, state banks and world banks; the private banks tend to lend to private customers both individuals and businesses on negotiated terms. The world banks which include; the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), and the World Bank have specific functions and responsibilities. The IMF for example, provides a pool of international funds to promote growth in world trade and to assist developing economies which have debt problems (Subramanaya, 2006). Supply of external capital financing which according to Okpanachi, (2013), could be in the form of portfolio (equity) investment, foreign direct investment (FDI), external debt or any combination thereof is warranted by the existence of the gap between domestic saving and investment.

However, Okoye & Eze (2013), urged that, the financial systems of most developing nations have come under stress as a result of economic shocks which have manifested through distortions of financial prices, for example, interest rates (Okpanachi, 2013). Consequently, capital inflows recessed as significant bank problems took toll on banks from both developed and developing nations leading to bank closures by regulatory authorities especially in Zimbabwe (Mabvure, et al., 2012). Most of the bank failures were caused by non-performing loans and in Zimbabwe the following commercial banks were affected; Barbican Bank Limited, CFX Bank Limited, Royal Bank Limited, Time Bank of Zimbabwe Limited and Trust Bank Limited (Monetary Policy Statement, 2006). Liquidity and liquidity risk management became the panacea to bank survival in the harsh operating environment (Pierre & Chikoko, 2012).

In spite all this (Fernando, 2011), alluded to the fact that the chief objective of banking and monetary policy should be to ensure availability of sufficient funds for business transaction for economic growth. The relationship between financial system development and economic growth received significant attention in both theoretical and empirical literature (Ndlovu, 2013). Apergis, et al., (2007) expounded that despite all the debate on the relationship between the two aspects, it was generally agreed that
financial developments were key to economic growth. Financial developments contribute to economic growth; it is important in poverty alleviation and essential in income distribution.

Finally, Okoye & Eze, (2013) urged that banks have the potential, scope and prospects for mobilizing the much needed financial resources and distributed them to those productive investments which in return promote banks performance. Banks would be interested in giving out loans and advances to their numerous customers bearing in mind, the three principles guiding their operations which are, profitability, liquidity and solvency. According to (Chagwiza, 2012), a number of companies in the various sectors of the economy are seeking advances and loans for recapitalization of operation. Capital constraints being experienced have led to a rising demand for loans. Manufacturing companies have a pronounced insufficiency of resources to finance operations such as to maintain and increase volumes of production. The lack of both working capital and capital for growth has impacted negatively on the ferrochrome industry.

*Hypothesis: Banking and Money (Liquidity) have positive impact on organisational sales performance*

**2.6.2.4 Interest Rate**

Interest rate represents one of the most important macroeconomic variables, which has a direct relationship with economic growth (Mahmudul & Uddin, 2009). Generally, interest rate is considered as the cost of capital, means the price paid for the use of money for a period of time. According to Nicholson (2014), from a borrower’s point of view, interest rate is the cost of borrowing money (borrowing rate), whilst from a lender’s point of view, interest rate is the fee charged for lending money (lending rate) (Mahmudul & Uddin, 2009). Interest rates are important and major drivers of an economy as they set the pace for investment markets (Nicholson, 2014).

High interest rates affect business because they influence both their own direct costs and the ability of their customers to borrow and spend (Nicholson, 2014). According to
Chamber of Mines Journal, (2010), high interest rates coupled with a constrained borrowing environment continue to negatively impact on both capitalization efforts and working capital. When the interest rates are high, businesses find it difficult to commit to projects that require investment (Vicki, 2014). Business owners and managers will be forced to tighten their belts, and businesses may contract to a point where jobs are eliminated or companies close. On the other hand, lower interest rates make it easier for businesses to borrow money in order to expand and grow businesses. Low loan rates also provide an opportunity for people to spend more on other things and push the demand for commodities up thus creating a demand for various goods and services, and thereby spurring the growth of economy (Scholasticus, 2010).

Chagwiza (2012) urged that those banks in Zimbabwe that offer loans, do so on a short term basis and are usually expensive (TheMonetaryPolicyStatement, 2014) forcing industries and businesses to opt for rights issues or not borrowing at all, and this has restricted their capacity to raise output. The Monetary Policy Statement, (2014), stated that the country’s interest rate structure is distorted as shown by the wide disparity between deposit and lending rate. Bank deposits attract a return as low as 0.15% for savings account to 20% for time deposits, while borrowing costs range between 6% and as high as 35% per annum. This borrowing rate according to Chagwiza (2012 and Nicholson (2014) is prohibitive for manufacturers and producers.

Although according to Nicholson (2014), the Central bank can influence the interest rate by adjusting the benchmark interbank overnight lending rate, Chagwiza (2012 lamented the absence of the active money market and inactive central bank function of Lender of the Last Resort. The most important interest rates are set in the open market which is currently dormant in Zimbabwe (Nicholson, 2014). The Monetary Policy Statement, (2014), pointed out that the multicurrency system took away the Central Bank’s role of being the lender of last resort, hence there has been lack of requisite and potent instrument to significantly influence the levels of interest in the market. The high lending interest rates impacted negatively on the growth and performance in the ferrochrome industry.
Hypothesis: High interest rate has a negative impact on organisational sales performance

2.6.2.5 Economic Growth and Development

Economic growth commands the amount of finances that the society at large is earning and development indicates the volume of money that is being invested into channels of long-term upgrade (Scholasticus, 2010). The BusinessDictionary.com, defines economic growth as an increase in a country’s productive capacity, as measured by comparing the gross national product (GNP) in a year with the GNP in the previous year. Physical causes of economic growth include; increase in the capital stock, advance in technology and improvement in the quality and level of literacy.

Fazleen, et al., (2012), explained that economic growth is the essential ingredient in alleviating poverty and generating the resources necessary for human development. They went on to explain the three dimension of explanatory variables that have been categorized as the determinants of economic growth; (1) demographic variable (life expectancy at birth); (2) policy variable (openness to trade, civil liberties and political rights, foreign direct investment (FDI) and (3) human development indicator which can be explained by fertility rate (Fazleen, et al., 2012).

For an economy to grow fast, empirical evidence has shown that investment-led growth is sustainable and China, the fastest growing country in the world pursued the same strategy and has been growing for the past few decades now (Sahoo, et al., 2010). (Sahoo, et al., 2010) went on to explain that the sustained high economic growth and increased competitiveness in the manufacturing sectors of China was underpinned by massive development of physical infrastructure. Byoungki (2006), went on to urge that the effects of infrastructure investment contribute to increased productivity and is expected to contribute to future economic growth in developing countries where infrastructure is still insufficient. Good infrastructure helps to raise productivity and lower costs in the directly productive activities of the economy, but it has to be expanded fast enough to meet the demand for infrastructure in the early stage of development.
Although the precise relationship between infrastructure and economic growth is still frequently debated; Byoungki, (2006), explained that the emerging of Japan and South Korea as big economic powerhouses stemmed from rebuilt of economic infrastructure. Construction of power stations, paved roads, bridges, and telecommunication were the main supporting fields of both countries. In Zimbabwe, the infrastructure in the following areas have collapsed and need to be revamped; power stations, transport sector (railway network, road network and air), and telecommunications.

Economic growth of a country will be high if financial institutions provide the credit demands of the real sector. Therefore financial development has an effect on economic growth especially for the developing and the emerging markets (Mehmet & GöÇER, 2013). The role of foreign aid in the growth process of developing nations has also been a topic for debate, with previous empirical studies on foreign aid and economic growth generating mixed results (Ekanayake, 2010). Mehmet & GÖÇER, (2013) urged that foreign direct investment and openness contribute to economic growth whilst, Ndambiri, et al., (2012) urged that foreign aid significantly lead to negative economic growth and Ekanayake, (2010) had mixed feelings. Foreign aid has positive impact on economies only when it is combined with good fiscal, monetary and trade policies.

Zimbabwe’s economic growth has failed to gain momentum mainly because of policy inconsistencies, uncertainty surrounding such policies as the indigenization and also succession politics in the ruling party. Foreign investors pulled out of the Zimbabwe Stock Exchange (ZSE) market and local investors could not capitalize on the relatively low prices due to a liquidity crunch. The reduced net foreign purchases and increased foreign investor sales translated into declining portfolio investment (TheStandard, 2014). On the ‘ease of doing business’ and ‘ease to starting business’ ranks, Zimbabwe was ranked 170 and 150 respectively out of 189 countries and this shows how difficult it is to do and start business in the country. (TheWorldBank, 2014).

Hypothesis: Economic growth and development have a positive impact on organisational sales performance
2.6.2.6 Income and Employment

Income and employment are important economic aspects which affect business operations, simply termed the employment density and rate of income. These are concerned with relative levels of prices, employment, and output in an economy. The per capita income and density of employment determines the rate of demand, density of demand, and also the purchasing power of the people (Scholasticus, 2010). These two aspects are demonstrated; during an economic upturn, where employment opportunities generate income which enables people to enjoy a better purchasing power. However, during a recession, the employment density and income rate go down and there is a corresponding diminishing purchasing power of the people.

Keynes explained in ‘The General Theory of Employment’ that the level of employment depends upon the total output or national income (Jain, 2006). He stated that if the national income is high then it follows that the rate of employment will also be high. Furthermore, if the level of national income is low then the standards of employment will also follow suit (Jain, 2006). The equilibrium level of income and employment will be that where aggregate demand is equal to the aggregate supply.

Zimbabwe’s economy continue to grow despite political uncertainty and it grew 5% in 2012 and the following economic problems were however, retarding growth; infrastructure and regulatory deficiencies, ongoing indigenization pressure, political uncertainty, a large eternal debt burden and insufficient formal employment (www.indexmundi.com/zimbabwe/economy, 2013). All these factors were hurting the economy affecting both the income and employment in the country. Unemployment was at around 95% in 2013 and continued to worsen, (www.indexmundi.com/zimbabwe/economy, 2013) as income from the manufacturing sector dried out due to unprecedented company closure in the sector. The noble empowerment and economic turnaround strategy, Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZimAsset) had targeted the mining sector as one of the sectors to propel economic growth but unfortunately that was to no effect in the short to medium term because the sector is also struggling. Lack of transparency in the
dealings in diamond industry; gold smuggling into neighboring countries; uncertainty in
the platinum industry as government threaten producers if they do not set-up a refinery
and high production cost which do not match selling prices in ferrochrome are some of
the sticking issues that remained unresolved and are weighing down organisation
performance.

Hypothesis: Low income and employment have a negative impact on
organisational sales performance

2.6.2.7 Trade Cycles

According to Tahir & Muhammad (2012), the trend of economic growth for any country
is dependent on a combination of factors including; structural changes in the economy,
rate of capital formation, natural calamities, political instabilities, global economic trend,
and self-feeding business cycle and so on. (Cheng, 2003), added that nations seek a
stable economic growth as their major macroeconomic goal and to achieve this, they
have entrusted policymakers and economists to find ways to sustain economic growth
in order to guarantee a stable and higher standard of living. Unfortunately according to
Cheng, (2003), long run economic growth has never been stable as it is interrupted by
periodic fluctuation of aggregate economic activity period of economic instability, boom
and bust periods (Male, 2009).

Trade or business cycle is generally recognized as a cyclic process which is
characterized by ups and downs in the levels of economic activity due to changes in
productivity (Cheng, 2003). In other word, trade cycle is simply an economy-wide
fluctuation in production or economic activity over several months or years. The
fluctuation occur around a long-term growth trend, and typically involve shifts overtime
between periods of relatively rapid growth (expansion or boom) and periods of relative
stagnation or decline (contraction or recession) (Alimi & Atanda, 2011). Prosperity,
recession, depression, and recovery are the main phases of any business cycle that
affect the demand and supply of all commodities, and trade cycles often affect the
general price levels of essential and non-essential commodities (Scholasticus, 2010).
Male (2009) went on to explain that identifying business or trade cycles is essential as these often form the basis for the construction and validation of theoretical business cycle models. Furthermore, understanding the cyclical patterns in economic activity and their causes is important to the decisions of both policymakers and market participants. This is of particular concern in developing countries where, in the absence of full risk sharing mechanisms, the economic and social costs of swings in the business cycle are very high (Male, 2009).

According to Alimi & Atanda, (2011), globalization, which they defined as the process of increased integration of national economies with the rest of the world, has led to greater economic growth through opening of borders to international trade. However, the rapid increase and financial linkages across countries according to Kose, et al., (2008) is often associated with detrimental effects in relation to the stability of a national economy, being susceptible to the ups and downs of the international business cycle and also positive and negative effects on the standards of living and quality of life within a nation (Alimi & Atanda, 2011). Kose, et al., (2008) stated that increased cross-border economic interdependence has led to convergence of business cycle fluctuations.

The market for ferrochrome has historically been cyclical (Gandhi, 2010). Recently, the ferrochrome global market was affected by periodic market fluctuations, for instances the pre-crisis commodity boom was one with the highest prices recorded in the history of ferrochrome industry (Chris Molefe, 2012). This was followed by a slump in production, demand and supply as the industry was recovering from the crisis. However, the demand for stainless steel from China and India (two of the emerging economies) helped industry to partially and sustainably recover from 2010 in line with other economies in the world, the likes of the OECD. The recovery in the world economy was noted by the global domestic product (GDP) which had contracted 0.5% in 2009 but went on to recover strongly by 5% in 2010 (ChamberOfMinesOfSouthAfricaAnnualReport2011, 2011).

Ramdoo & Bilal, (2014), suggested that to avoid the boom-burst cycle governments have to be disciplined in their spending despite the price volatility and transform the
revenue they generate into sustained economic growth through effectively reinvestment in productive capacity such as training, health, education and infrastructure done through setting up of sovereign wealth funds. For example Botswana and Norway have avoided the boom-burst cycle as they accumulate foreign reserves during booms to cushion during burst.

**Hypothesis: Trade cycles have negative impact on organisational sales performance**

**2.6.2.8 Recession**

A recession is a general slowdown in economic activity, a downturn in the business cycle, a reduction in the amount of goods and services produced and sold (U.S.BureauofLabourStatistics, 2012). During a recession like the Global financial crisis of 2008/2009, organization’s performance is marked by a decrease in sales volumes, revenues and profits as consumer spending power around the world decline (OECDReport, 2010). To curtail cost, organisation resort to cost-cutting measures like freezing; hiring of new employees, making capital expenditure, marketing and advertising expenditures, and research and development activities. This not only affects large organizations, but also the small ones which act as vendors to these big companies (Scholasticus, 2010). Scholasticus (2010) stated that survival of organisations especially smaller organizations during a recession is difficult due to lack of financial funds or availability of loans. Most companies undertook re-organisation of work systems and functions to improve efficiency, streamlining and better monitoring of expenses to cut costs and a policy of non-replacement of departing staff (www.indexmundi.com/zimbabwe/economy, 2013).

Developing countries and fragile state are the hardest hit during a recession and the impact depends on geographical profile, openness of their market, trade patterns and reliance on remittance from economic migrants (OECDReport, 2010). According to ImaniDevelopment, (2009) report, businesses are most severely impacted through loss of their overseas market as overseas buyers get affected by the recession. Manufactured exports to OECD countries and other overseas markets get negatively affected due to reduced demand from these countries and markets. Even regional
markets are not spared, for example, South Africa, which is a major importer of Zimbabwean goods, was also affected by the global recession.

A recession leads to global slump in prices and demand for commodities, minerals in particular, and causes massive decline in capacity utilization and output for most mining companies, with some even pushed to closure (ImaniDevelopment, 2009). Factors like falling stocks, lack of dividends, below par quality, employee lay-offs, bankruptcy, during recession are unavoidable and affect the business adversely (Scholasticus, 2010). This was the case with the ferrochrome industry in Zimbabwe, with the biggest smelter, Zimasco scaling down operations in 2012. The closures of ZimAlloys, Maranatha, Oliken and Monochrome were a clear testimony that the industry was facing serious challenges with regards to operations due to the recession. Zimasco started laying of almost half of its labour force in 2013 as a cost-cutting initiative in a bid to streamline operations costs to match the prevailing low prices (TheSouthernTimes, 2014).

According to the ImaniDevelopment report (2009) some enterprises during a recession are forced to operate at a loss because they cannot afford to retrench due to the high costs involved in retrenching workers. Their situation is worsened by demands for higher wages (ImaniDevelopment, 2009).

**Hypothesis: Recession has negative impact on organisational sales performance**

### 2.6.2.9 Government regulations

According to Coglianese (2012) regulations are rules or norms adopted by government and backed-up by some threat of consequences, usually negative ones in the form of penalties. Kitching, (2006), went on to define regulations as legal and administrative rules created, applied and enforced by state institutions at local and national level that both mandate and prohibit actions by individuals and organisations, with infringements subject to criminal, civil and administrative. A regulation seeks to make improvements by changing organisational and individual behaviour in a manner that generate positive impacts in terms of solving societal and economic problems (Coglianese, 2012).
Government regulations normally impact on organization performance in different ways (Nicholson, 2014). Regulations impose necessary costs on firms such as the need to adapt the business to meet the regulatory requirements or to pay licensing fees and in most cases the cost are unnecessarily high because of rent-seeking behaviour, inefficient administration or poor institutional fit, hence reduce the business or company profits (Koci, 2013). On the other hand, the government creates a business enabling environment by establishing through regulation; financial system that enables provision of credit to investors; a welfare system for supply of health, education and ‘disciplined’ individuals for business staff and an energy, transport and communication infrastructure that enable private sector operation (Kitching, 2006).

The country’s regulatory system has been uncertain and poor quality laws and regulations have been promulgated without enough consultations and these have hampered economic growth and sustainable development (Koci, 2013). The Indigenous Economic Empowerment Act is one good example of a regulation which has hamper growth in the country, with investors shunning the economy due to the repressive nature of the act. Resource nationalism in mining and metal companies has given the government the right to go beyond taxation as the government seeks a greater stake from the sector (Enest&YoungReport, 2013). High rate of royalties in the potential mining sector are scaring away investors and this has made the country a less competitive destination for business ventures. According to (ParliamentofZimbabweReport, 2013), chrome royalty fees of 2% of total sales are levied on chrome producer. This tax further impact negatively on organisation profitability as organisation are already paying corporate tax and other general taxes. For comparison purposes other minerals are levied as follows; gold at 7%, platinum at 10% and diamond at 15%.

Government regulations on electricity generation and supply have had detrimental effects on the performance and growth of the ferrochrome industry in Zimbabwe (Nicholson, 2014). The power intensive ferrochrome smelting process demands uninterrupted power all the time so as to achieve maximum productivity (Chitambira, et al., 2011). The power generation capacity of the country has
deteriorated significantly over the years, dropping to around 50% of installed capacity of 1950MW, hence considerable investment into the sector is required (Kaseke, 2013). The country’s peak demand is over 2100MW, which is even way above installed capacity (Kaseke, 2013). Imports of power to augment current generation have fallen from the peak of 40% due to cash-flow problem leaving the country with a huge power deficit (Kaseke, 2013). The poor power supply shortages have continued to push up the price of power making the power in Zimbabwe more expensive than South Africa, see Figure 2.4 below. Power load shedding or rationing was introduced as the power utility strives to share the scarce resource amongst its increasing users. It therefore calls for a comprehensive policy encompassing energy generation, supply and management which can attract investment in the power sector to harness the potential and facilitate better performance (Chitambira, et al., 2011).

The Government of Zimbabwe reintroduced an embargo on raw chrome ore export in April 2011, as a way of forcing the beneficiation of the raw material before it could be exported (Karombo, 2011). The value addition step of smelting is being hampered by constrained smelting capacity hence creating a bottleneck which has left many miners stranded with stockpiles of raw chrome. The few running smelters have not enough capacity to consume all the mined ores thereby leaving a lot of miners stranded. Exporting raw ore will assist in the creation of employment, generation of income and improved cash-flow within organisations which are currently very poor due to mismatch between production cost and selling price (ParliamentofZimbabweReport, 2013).

Hypothesis: Government regulations have negative impact on organisational sales performance.
2.6.3 Control Variables

Control variable or covariate is an extraneous variable which is not of theoretical interest to the research but may impact on the dependent variable, hence should be controlled. The researcher control this variable so that the residual effects of the independent variable of interest are detected more precisely (Bhattacherjee, 2012). See figure 2.5.

2.7 Literature Synthesis and Conceptual Framework

The external environment influences organisation decisions and it impacts on organisation performance. Organisations should adapt to their external environments inorder to thrive and survive. Organisations should formulate and implement strategies to counter threats which are presented by the environment and to take advantages of opportunities. However, environmental scanning and assessing becomes prudent and inevitable (Olarewaju & Folarin, 2012).
According to Venkatraman and Prescott, (1990) as cited by (Machuki & Aosa, 2011) an organisation ought to find a match or fit between the demands of its competitive environment and its internal management systems for it to survive and succeed. The organisation’s competitive environment has many factors but literature according to (Fernando, 2011) states that organisation’s behaviour is mostly economic in nature and management decisions are guided by economic decisions based on proven theories such as demand, supply, trade cycle, interest rate, banking and money, recession, income and employment, economic growth and development and so on. Figure 2.5 shows the conceptual framework for the study.

2.7.1 Hypothesis Testing

H2-1 Demand has a positive impact on organisational sales performance

H2-2 Supply has positive impact on organisational sales performance

H2-3 Banking and money have positive impact on organisational sales performance

H2-4 High interest rates have negative impact on organisational sales performance

H2-5 Economic Growth and Development have positive impact on organisational sales performance

H2-6 Low income has a negative impact on organisational sales performance

H2-7 Low employment has a negative impact on organisational performance

H2-8 Trade cycles have negative impact on organisational performance

H2-9 Recession has negative impact on organisational sales performance

H2-10 Government regulations has negative impact on organisational sales performance
2.5 Conceptual Framework

**General factors**
The two groups of general factors both Control and Contextual variables (H1 and H3) in Figure 2.5 above were hypothesized to have an impact on organisational sales performance.
2.8 Chapter Summary

The chapter summarised the theoretical background to the research topic and a review of the literature by other researchers who did some work on the area of study. The literature showed that this area on the impact of economic environment on organisation performance has received some attention but mainly in the food and beverage industry. Therefore this research was unique in that it focussed only on the economic variables which tend to have significant impact on the organisation performance.

The identification and discussion of both the dependent and independent variables was the climax of this chapter. The clear demonstration of the relationship between the variables and their interconnection can not be overemphasised. The ultimate achievement of the final result of increased or growth in sales is influenced by variables which operate as a unit to achieve the intended goal. The chapter concluded with the development of the conceptual framework.
CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is the manner in which a research is conducted which comprises of the research philosophy, the research strategy used and the research instrument utilized and developed in the pursuit of realizing the research objectives and answering the research questions (www.is.cityu.edu.hk/staff/isrobert/.../ch3.p, n.d.). Collins & Hussey (2009) went on to define research methodology as the overall approach to the whole process of the research study. Saunders et al. (2009) presented the entire research methodology by means of an “onion”, wherein the views to do with the research problem are sited in the middle with some layers which have to be “peeled away” before coming to the innermost position. According to Saunders et al. (2009), the layers are the essential aspects to be factored in, in determining the research methodology for any research study. The layers identified and to be considered are, research philosophy, approach, strategy, choice, time horizon, and techniques.

Research methods are classified into qualitative and quantitative. Qualitative research methods were developed in areas of social sciences to enable researchers to study social and cultural phenomena, while quantitative methods were developed in the natural sciences to study natural phenomena (Thomas, 2010). Myers (2009) explained a research method as a strategy of enquiry that moves from the underlying assumption to research design, data collection and manipulation.

3.1.1 Research Objective and Problem Statement

The ferrochrome industry in Zimbabwe has been subdued and under siege for a long time now with some smelters ceasing operations due to viability problems. The industry has not performed to expectation since the Global Financial Crisis of 2008/2009 period. This is despite the fact that Zimbabwe has the largest reserves of chromite ore in the world after South Africa. This is also despite the fact that Zimbabwe is the only country to have both the stratiform and podiform types of chrome ores that are exploitable for
ferrochrome production. Only five out of the nine smelters are currently running and it is hypothesized that this is due to the impact of the external economic environment which is affecting sales performance.

The objective of the research is to identify the economic variables that impact on organisational sales performances in the ferrochrome industry and to understand which factors in the conceptual model shown in section 2.7 affect and influence sales performance.

The main research question to be answered is; “What are the main economic variables that impact the sales performance of the ferrochrome industry?”

Hypothesis: External Economic Environment has an impact on organisational sales performance.

3.2 Research Design

This is basically a plan of the proposed research work. According to (Creswell, 2003) research design takes place at two levels namely the philosophical and the practical. The philosophical level deals with epistemological issues which are methodical issues; whilst at the practical level, issue to do with specific methods are tackled. It is important that at this design stage the right choices are made for both.

3.3 Research Philosophy

A research philosophy can be viewed as a belief about the manner in which data regarding a given phenomenon should be collected, analysed and put into use (Limpanitgul, 2009). Epistemology which means “what is known to be true” is different from doxology which means “what is believed to be true” as it incorporates the several philosophies of the research approach. The two major research philosophies, which have been applied in the traditional sciences, are Positivist and Interpretivist (phenomenology). Positivist is usually associated with natural science research and involves empirical testing, whilst Interpretivist promotes the idea that the subjective
thought and ideas are valid (Saunders, et al., 2009). It aims to see the study through the eyes of the people being studied (Saunders, et al., 2009).

3.3.1 Researcher’s Choice and Justification

The researcher in this study settled for the positivist approach as the research philosophy. This is as a result of the need to exam the casual relationships that were discussed earlier on in the section on literature review. The positivist research approach was selected due to its objectivity which is relevant for this research and for the development of the key research instruments. Positivistic approach adopts scientific methods and systematise the knowledge generation process with the help of quantification to enhance precision in the description of parameters and the relationship among them. Positivism is concerned with uncovering truth and presenting it by empirical means (Henning, et al., 2004).

3.4 Research Approach

The researcher in this study adopted the deductive approach. According to Saunders et al., (2012), the approach is concerned with hypothesis development based on existing theory and then crafting a research strategy that test the hypothesis. This approach is aimed at deducing conclusions from hypothesis or propositions. An expected pattern is tested against what is observed.

The poor performance in the ferrochrome industry is believed to be due to the impact of the economic factors on organisational performance. Economic theories as discussed in the literature review section seem to support the relationship. The researcher’s main objective is to prove that indeed it is correct.

3.5 Research Strategy

Research strategy is defined by Saunders et al (2009, pp600), as “the general plan of how the researcher will go about answering the research questions”. It gives the overall
direction of the study including the manner by which the study will be conducted (Wedawatta, et al., 2011).

There are several research strategies which may be employed in any research namely; experiment, survey, case study, action research, grounded theory, ethnography and archival research (Saunders, et al., 2009). Some of the strategies clearly belong to either of the two approaches namely deductive and inductive; however no strategy is inferior or superior to any other. Choice of strategy in a research is guided by the research objectives and question(s), the time available, existing knowledge on the subject areas, other resources availability and the philosophical underpinnings of the researcher (Saunders, et al., 2009; Wedawatta, et al., 2011).

Since the researcher in this study adopted a positivistic approach; the study focuses on theory testing, where a theory was adopted as the main framework for developing and testing the hypothesis and this emphasizes a deductive orientation of the study. Hence given the nature of research objectives and the adequate availability of evidence to formulate relationships for examination it was found that cross-section descriptive survey was the most appropriate option for this study (Limpanitgul, 2009).

3.5.1 Researcher's Choice and Justification

The researcher selected the cross-sectional survey strategy since it is ordinarily associated with the deductive approach. It is cross-sectional according to Machuki & Aosa (2011), because the information about the subjects that is collected represents what is going on at only one point in time. This strategy is populous and commonly used in business and management research and it allows the researcher to collect quantitative data which can be analysed quantitatively through descriptive and inferential statistics (Saunders, et al., 2009). This strategy involves data collection from a large group of objects in a standardised and systematic way. The techniques that can be employed to collect the data included observations, questionnaires, interviews and literature research (Hinkelmann & Witschel, 2013). The data is then evaluated by using statistical methods, from which any emerging patterns are identified especially those which were not expected. Finally the results are interpreted and conclusions drawn
based on the information produced (Hinkelmann & Witschel, 2013). The data collected and analysed help to answer the research questions (Machuki & Aosa, 2011).

The benefits to the researcher of choosing this strategy are that surveys allow the collection of a large amount of data from a sizeable population in a highly economical way; data collected is standardised through the use of a questionnaire therefore allows easy comparison. Furthermore, the strategy is easy to explain and understand (Saunders, et al., 2009). Survey strategy is dependable in that surveys are anonymous hence allow respondents to answer with more candid and supply valid answers.

Despite the advantages associated with this strategy, there are also some pitfalls which the researcher has to take cognisance of and the main one was, narrow–range of data collected due to limited number of questions that could be put on the questionnaire (Saunders, et al., 2009). However, to overcome this drawback and time permitting, a searcher can co-opt other strategies, for example observation or interviews.

3.6 Selection of Explanatory Research Techniques

3.6.1 Sampling

Sampling involves the selection of truly representative study units from the defined study population with the main objective being that of getting the maximum information of the population from the samples collected (Dutta, 2003). Sampling is most ideal when it would be impractical to study the whole population (census) which is the case with most researches due to budgetary and time constraints (Latham, 2007). According to (Kelleher, 2011), sampling aims at getting, “an accurate estimate of the population’s characteristics from measuring the sample’s characteristics”. However, the researcher must take note of some of the drawbacks associated with sampling, which include chances of bias, difficulty in getting a representative sample, inadequacy of samples and accuracy problems.

There are two categories of sampling methods called probability sampling and non-probability sampling (Latham, 2007). Kelleher (2011 pp 3) defined probability sampling as “any method of selecting a sample such that each sampling unit has a specific
probability of being chosen”. Non-probability sampling according to Kelleher (2011, pp3) involves, “all sampling procedures in which the units that make up the sample are collected with no specific probability structure in mind”.

Due to the nature of the research which is a quantitative, the study objectives, hypothesis and the research question; the probability sampling technique was adopted and out of the four types namely, stratified random sampling, cluster random sampling, systematic random sampling, and simple random sampling; the researcher settled for stratified random sampling (Latham, 2007, Gallardos, 2009). This study examined the ferrochrome industry in Zimbabwe and selected a sample of five organisations out of the established nine in the country.

3.6.1.1 Justification for Sampling Techniques

The researcher adopted the stratified random sampling method in selecting the ferrochrome organisations to study in Zimbabwe. Gallardos (2009, pp 163), defines stratified sampling as, “a type of sampling that uses a technique in which different subcategories of the sample are identified and then randomly selected”. Only a few characteristics of the population to be studied are known, hence the subgroups of the different organisations will guarantee random sample selection from the subgroups. Characteristics such as gender, religion, race and age can be exhibited and then assessed. The five companies selected for the study were, Zimasco, ZimAlloys, Maranatha, Oliken Ferroalloys and Afrochine. These private companies were selected on the basis that information on sales performance can be solicited. The other remaining companies are wholly owned by Chinese and information dissemination is restrictive expect for Afrochine.

3.6.2 Sample Size

Sample size estimation is critical in any study, because there is a minimum sample size required for a given population to give estimates which are within acceptable levels of precision (Kelleher, 2011). A sample size denotes the total number of data sources that are selected from a total population (Gallardos, 2009). A sample size should be large enough to reduce standard error (Saunders , et al., 2009). Saunders , et al.,
(2009), further stressed the point that the larger the sample size, the lower the likely error generalisation to the population hence the margin of error should be within acceptable limits. This fulfills the “Law of Large Numbers”, which according to Gallardos, (2009), the larger the sample collected the more representative it is of the population. The samples size for this study was established to be 130 based on the formula; 50+8N, where N is the number of factors or variables in the model. The model had ten variables hence 50 + (8X10) =130.

3.6.3 Data Collection Method

Data collection is an essential aspect of any type of research study. The researcher ought to identify at an early stage in the research design process, which variables to be measured so as to come up with the appropriate data collection methods (Saunders, et al., 2009). Unfortunately, inaccurate data collection can adversely affect the study results and ultimately lead to results invalidation. The two broad data collection methods are qualitative and quantitative.

The present study utilised the quantitative method for data collection. A questionnaire survey was utilized as data collection instrument. According to Limpanitgul (2009), a questionnaire survey enables the researcher to examine and explain relationships between constructs, in particular the cause-and-effect relationships (Saunders, et al., 2009). The study depended on primary data sources.

3.6.4 Data Collection

Data for the study was collected from primary sources through the use of a questionnaire. The factors were captured through a 5-point Likert type scale. The questionnaire was administered to managerial respondents from the five companies. The researcher distributed both soft and hard copies to respondents and gave them a two week window to respond and return.

A total of 130 questionnaires were administered to the respondents from the five different ferrochrome producing companies namely; Zimasco, ZimAlloys, Maranatha, Oliken and Afrochine.
3.7 Data Analysis

The data collected through the self-administered questionnaires was evaluated and analysed using the software called Statistical Package for Social Science (SPSS) version 21. The data collected for all variables was entered and analysed using statistical methods such as frequency test, reliability test, Kruskal-Wallis test, Mann-Whitney test, correlation analysis and regression analysis.

3.7.1 Pilot Test

A pilot test was conducted before distributing the questionnaires to ensure that the questionnaire was free of errors and also was valid and reliable. The pilot test was conducted on a small group of five key participants who had similar characteristics with the target population. The group that participated in the pilot test gave feedback that helped in improving some of the questions in the questionnaire. The positive comments from the participants were that the questionnaire was easy, simple and was so short that it did not take time to answer.

3.7.2 Reliability Analysis

Reliability is the extent to which a measurement produces the same results each time it is employed. It is all about consistency, that for example, items in the questionnaire were constantly measuring the constructs in the model. The SPSS tool used tested Cronbach Alpha test to check for the reliability of the data collected through the use of a questionnaire.

3.8 Ethical Considerations

The research was carried out in a way which ensured that the respondent felt confident that their privacy and also confidentiality was protected. Research ethics are important because according to Bhattacherjee( 2012), science has often been manipulated in unethical means by organisations and people to advance their own private agenda.
The letter of research was obtained from the GSM and this was used as assurance to the respondents that the research was purely for academic purposes and participation was voluntary, whilst anonymity and confidentiality would be respected.

3.9 Chapter Summary

The research followed the positivism deductive approach and used the stratified random sampling technique to select the sample. The survey strategy was the strategy of choice and data was collected through administering the cross-sectional questionnaire to the sample population. The questionnaire was first pilot tested and then administered in such a way that data was collected under the conditions from as many respondents as possible so that the data collected will give good results during analysis. Reliability tests to measure the consistency of items included in the questionnaire was done using the SPSS software.
CHAPTER 4

DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents findings, empirical evidence, results and analysis of the questionnaires and hypotheses which were tested by the software SPSS Version 21. The chapter starts with an analysis of the response and the distribution of the respondents, it then analyses influence of the factors on sales performance through descriptive statistics, reliability test, Kruskal-Wallis test, Mann-Whitney test, correlation analysis, regression analysis and logistic regression, so as to test the hypothesis relation between the independent variables and dependent variable (sales).

4.2 Response Rate

A total of 62 respondents completed and submitted the questionnaires. Out of the completed and returned questionnaires, ten of them were not usable and had to be discarded, leaving the usable questionnaires for the population standing at 52. The response rate could not be easily ascertained due to the fact that electronic copies were distributed in different companies via a key person whom in almost all cases failed to feedback on how many managers participated in the survey. However, the response rate was generally below average because of the fact that the ferrochrome industry is struggling and almost half of the players are not running. Those companies which are running have their management teams working reduced hours as an initiative to reduce costs. It was also established that respondents from Zimasco were 73% of the total, 6% ZimAlloys, 9% Maranatha, 6% Oliken, and 6% Afrochine. Zimasco topped the list firstly, because the researcher works for this company and management felt obliged to assist a colleague with the research, secondly Zimasco is the biggest producer and it has the highest number of manager as compared to other players in the same industry.
4.3 Descriptive Statistics

This is statistical information that is analysed and presented in a manner that is easy to interpret and understand as it is presented using tables and graphs to demonstrate the data taken from the questionnaire. Appendix 2 present the information, output from SPSS.

4.3.1 Frequency Testing

Table 4.1 Gender Distribution

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>40</td>
<td>76.9</td>
<td>76.9</td>
<td>76.9</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>23.1</td>
<td>23.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.1 Gender Distribution
It can be seen that 77% of the respondents were male while 23% were females. The industry still employs more male workers than females because of the nature of work which is heavily manual and demands a lot of physical effort thus is shunned by female workers. Most of the female respondents were mainly from the service departments such as Finance and Administration and Human Resources.

Figure 4.2 Age Groups of Respondents

Figure 4.2 shows the age group of the respondents. The highest number of respondents was between the age 35 to 45 years, and about 85% of the respondents were below 45 years, which is the young generation group. The reason for this distribution could be a symptom of the problems the industry is facing, whereby older employees opted for an early retirement and some were retrenched as part of cost cutting initiatives being implemented.
Figure 4.3 shows that the educational background for the majority of the respondents was first degree, and then followed by those with Masters Degree. This industry is highly technical and demands a lot of technical knowhow and some key critical and surface competencies. On the surface competencies, educational qualification at degree level is a prerequisite.

Table 4.2 Position in Organisation

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive or GM</td>
<td>5</td>
<td>9.6</td>
<td>9.6</td>
<td>9.6</td>
</tr>
<tr>
<td>Middle Manager or HOD</td>
<td>12</td>
<td>23.1</td>
<td>23.1</td>
<td>32.7</td>
</tr>
<tr>
<td>Junior or Head of Section</td>
<td>35</td>
<td>67.3</td>
<td>67.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Table 4.2 shows the positions of the respondents in the different organisations. This was the intended target population and was achieved with 67.3% in junior positions, 23.1% in middle management positions and 9.6% being executive positions.

4.4 Reliability Test

4.4.1 Reliability Test for Independent Variables

The Cronbach’s (1951) Alpha test was utilised to estimate the internal consistency and stability of the independent variables results which should give the same results if done by a different researcher. The generally acceptable minimum coefficient scale is 0.70 (Hair, et al., 2010), but in this study the limit was relaxed to 0.60 because it is an explanatory study.

The test assists in measuring inter-item homogeneity and in this study, the following independent variables; demand, supply, liquidity, economic growth and development, employment, trade cycles and government policy had a Cronbach’s Alpha coefficient greater than 0.6, whilst variables; interest, income and recession had Cronbach’s Alpha values of less than 0.6 and it was only after performing delete-item exercise that the values conformed for these factors as shown in Table 4.3 below. The delete-item test for interest involved deleting question 4.4, for income question 6.4 and for recession question 9.1 (see the questionnaire in Appendix 1).

The test shows that after carrying out the delete-item test, all factors were conforming to the threshold limit of 0.6 and were therefore included because they would contribute meaningfully to this study.
Table 4.3 Reliability Statistics for Individual Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Cronbach’s Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand</td>
<td>0.691</td>
<td>4</td>
</tr>
<tr>
<td>Supply</td>
<td>0.921</td>
<td>4</td>
</tr>
<tr>
<td>Banking and Money</td>
<td>0.624</td>
<td>4</td>
</tr>
<tr>
<td>Interest</td>
<td>0.623</td>
<td>3</td>
</tr>
<tr>
<td>Economic Growth and Development</td>
<td>0.671</td>
<td>4</td>
</tr>
<tr>
<td>Income</td>
<td>0.823</td>
<td>3</td>
</tr>
<tr>
<td>Employment</td>
<td>0.748</td>
<td>4</td>
</tr>
<tr>
<td>Trade Cycle</td>
<td>0.725</td>
<td>4</td>
</tr>
<tr>
<td>Recession</td>
<td>0.600</td>
<td>3</td>
</tr>
<tr>
<td>Government Policy</td>
<td>0.883</td>
<td>4</td>
</tr>
</tbody>
</table>

4.4 Nonparametric

The normality tests results shown in Appendix 3, show that the research data was not normally distributed, hence nonparametric tests were done. In this test factor variables were tested either by Kruskal-Wallis Test (for more than two variables) or Mann-Whitney Test (for two variables only). The tests assessed the impact of the independent variables (general factors) on the dependent variables so as to ascertain the effect of each independent variable on dependent variable (sales). See diagram below,
### 4.4.1 Kruskal Wallis Test

This is a nonparametric test used to examine the relationship between the independent variables in our case general factors, and the dependent variable (sales), where there are more than two categories.

Statistical significance (Sig.) is a tool that measures the statistical significance of independent variable to the dependent variable. The scale used has a significance point at 0.05, whereby less than 0.05 means statistically significant whilst above 0.05 is considered not to be statistically significant hence the variable is not an explanatory variable.

#### Table 4.4 Age Ranks

<table>
<thead>
<tr>
<th>Performance</th>
<th>Age</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>less than 25</td>
<td>1</td>
<td>38.00</td>
</tr>
<tr>
<td></td>
<td>25-less than 35</td>
<td>15</td>
<td>29.33</td>
</tr>
<tr>
<td></td>
<td>35-less than 45</td>
<td>28</td>
<td>25.93</td>
</tr>
<tr>
<td></td>
<td>45 and above</td>
<td>8</td>
<td>21.75</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>52</td>
<td></td>
</tr>
</tbody>
</table>

#### Table 4.4 Age Test Statistics

<table>
<thead>
<tr>
<th>Performance</th>
<th>Chi-Square</th>
<th>df</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>2.602</td>
<td>3</td>
<td>.457</td>
</tr>
</tbody>
</table>
Tables 4.4 and 4.5 show that age is not an explanatory variable because there is no statistical significant difference in age (Gp1, n=1: age less than 25, Gp2, n=15: age 25-35, Gp3, n=28: age 35-45, Gp4, n=8: age 45 & above, \( \chi^2 (3, n=52)=2.602 \) \( p=0.457 \).

Table 4.5 Size Rank

<table>
<thead>
<tr>
<th>Performance</th>
<th>Company name</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>Zimasco</td>
<td>38</td>
<td>31.16</td>
</tr>
<tr>
<td></td>
<td>Maranatha</td>
<td>5</td>
<td>17.20</td>
</tr>
<tr>
<td></td>
<td>ZimAlloys</td>
<td>3</td>
<td>12.00</td>
</tr>
<tr>
<td></td>
<td>Afrochine</td>
<td>3</td>
<td>12.00</td>
</tr>
<tr>
<td></td>
<td>OlikenFerroalloy</td>
<td>3</td>
<td>12.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>52</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.6 Size Test statistics

<table>
<thead>
<tr>
<th>Performance</th>
<th>Chi-Square</th>
<th>df</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>18.522</td>
<td>4</td>
<td>.001</td>
</tr>
</tbody>
</table>

Table 4.6 and table 4.7 show that there is a statistical significant difference in size as an explanatory variable of sales (Gp1, n=38: Zimasco, Gp2, n=5: Maranatha, Gp3, n=3: ZimAlloys, Gp4, n=3: Afrochine, Gp5, n=3: Oliken Ferroalloy, \( \chi^2 (4, n=52)=18.522 \) \( p=0.01 \)).

There was a statistically significant difference in performance between big organisation and small organisations. The size of the companies in the ferrochrome industry was as shown in table 4.6 whereby the mean rank for Zimasco was the highest at 38 with
lowest mean for small companies like Oliken Ferroalloy at 12. Large companies benefit from the economies of scale and in the ferrochrome industry production volumes do count because huge tonnages lower the unit cost of production. The relationship between costs and production is therefore an inverse relationship *ceteris paribus*.

Table 4.7 Position Ranks

<table>
<thead>
<tr>
<th>Performance</th>
<th>Position in organisation</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive or GM</td>
<td>5</td>
<td>22.40</td>
<td></td>
</tr>
<tr>
<td>Middle Manager or HOD</td>
<td>12</td>
<td>20.67</td>
<td></td>
</tr>
<tr>
<td>Junior or Head of Section</td>
<td>35</td>
<td>29.09</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.8 Position Test Statistics

<table>
<thead>
<tr>
<th>Performance</th>
<th>Chi-Square</th>
<th>df</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>4.272</td>
<td>2</td>
<td>.118</td>
</tr>
</tbody>
</table>

Table 4.8 and table 4.9 show that position in organisation is not an explanatory variable because there is no statistical significant difference in position. (Gp1,n=5:executive, Gp2,n=12:middlemanager,Gp3,n=35:juniormanager, χ² (2,n=52)=4.272, p=.118)
### Table 4.9 Education Ranks

<table>
<thead>
<tr>
<th>Your highest educational qualifications</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td>3</td>
<td>29.33</td>
</tr>
<tr>
<td>First Degree</td>
<td>40</td>
<td>26.30</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>7</td>
<td>26.86</td>
</tr>
<tr>
<td>Doctorate</td>
<td>1</td>
<td>12.00</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>38.00</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td></td>
</tr>
</tbody>
</table>

### Table 4.11 Education Test Statistics

<table>
<thead>
<tr>
<th>Performance</th>
<th>Chi-Square</th>
<th>df</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.171</td>
<td>4</td>
<td>.704</td>
</tr>
</tbody>
</table>

Table 4.10 and table 4.11 show that there is no statistically significant difference in education as an explanatory variable. (Gp1,n=3:diploma ,Gp2,n=40:firstdegree, Gp3,n=7:mastersdegree, Gp4,n=1:doctorate, Gp5,n=1:other, $\chi^2$ (4,n=52)=2.171 p=0.704).

The tables demonstrate that based on Kruskal-Wallis Test; there is no statistically significant difference between the general variable and sales, except for size which has a significance level below 0.05 at 0.01.
4.4.2 Mann-Whitney Test

This is a nonparametric statistical hypotheses test which is employed to examine the relationship between independent variables (general factors) and the dependent variable (sales) for a two categorized data.

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>40</td>
<td>25.00</td>
<td>1000.00</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>31.50</td>
<td>378.00</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.11 Gender Test Statistics

<table>
<thead>
<tr>
<th></th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>180.000</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>1000.000</td>
</tr>
<tr>
<td>Z</td>
<td>-1.515</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.130</td>
</tr>
</tbody>
</table>

Table 4.12 and table 4.13 indicate that gender is not an explanatory variable of sales because there is no statistical significant difference in the sex of the respondent. This means that sales are not influenced by the gender of the respondent. The Z score of -1.515 was not statistically significant and p=0.130, which means there was no difference between Mean ranks namely male Md=25.0, n=40 and Female Md=31.50, n=12, U=180, z= -1.515.
4.5 Correlation Analysis

Correlation is a technique utilised to measure the direction (positive or negative), magnitude\(^1\) (-1 0 +1) and significance (repeatability) of a liner relationship assessed between a pair of dimensions. The linear correlation presents Spearman’s rho coefficient between each independent variable and the dependent variable as opposed to Pearson’s correlation because this analysis is nonparametric. See Appendix 4 for the correlation table with the relationships.

Independent variables should not strongly relate to each other but should significantly relate to the performance. The correlation in the table in Appendix 4 indicates that demand is positively correlated to performance (sales), the correlation coefficient falls in the medium category, and hence it’s a medium relationship, which is statistically significant. It supports the hypothesis that demand leads to increased performance \((r=0.369, n=52, p<0.07)\).

The table (Appendix 4) shows a negative correlation coefficient of -0.268 between interest and performance. The coefficients falls in the medium relationship category, thus it is a weak relationship which is statistically significant. The hypothesis that high interest leads to decline in sales is supported \((r=-0.268, n=52, p<0.050)\).

Furthermore, the correlation results in Appendix 4 show that there is negative strong relationship between recession and performance. The relationship is statistically significant and supports the hypothesis that recession negatively affects performance \((r=-0.748, n=52, p<0.00)\).

The correlation analysis established an existence of some relationship of three of the independent variables with performance. However, correlation has been proved not to be robust hence a more robust Logistic regression analysis will be conducted to ascertain the main predictors of performance.

\(^1\) Magnitude scale $r = 0.0 – 0.299$ - weak relationship
$r = 0.30 - 0.499$ - medium relationship
$r = 0.50$ and above - strong relationship (Pallant, 2005)
4.6 Regression Analysis

Regression is a method or techniques used to predict the cause-effect relationship among variables and is also utilised for predicting relationship. This is a robust test which enables the researcher to look at the cause-effect relationship. The researcher in this study adopted the logistic regression because the dependent variable, sales was categorical (an increase or decrease in sales).

4.6.1 Logistic Regression

Logistic regression analysis is a robust prediction technique utilised to study and analyse the relationship between categorical dependent variable (increasing sales) and continuous independent variable (performance). The randomly chosen sample which was included in the analysis had a total of 52 respondents.

Table 4.12 Case Processing Summary

<table>
<thead>
<tr>
<th>UnweightedCases(^a)</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selected Cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Included in Analysis</td>
<td>52</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing Cases</td>
<td>0</td>
<td>.0</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100.0</td>
</tr>
<tr>
<td>Unselected Cases</td>
<td>0</td>
<td>.0</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 4.14 indicates the dependent variable code in the logistic regression test used that significantly influence company sales that decreasing = 0 and increasing = 1 as shown in Table 4.15.

### Table 4.13 Dependent Variable Encoding

<table>
<thead>
<tr>
<th>Original Value</th>
<th>Internal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreasing</td>
<td>0</td>
</tr>
<tr>
<td>Increasing</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 4.14 Classification Table

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th>Performance</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Decreasing</td>
<td>Increasing</td>
</tr>
<tr>
<td>Step 1 Performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decreasing</td>
<td>23</td>
<td>0</td>
<td>100.0</td>
</tr>
<tr>
<td>Increasing</td>
<td>1</td>
<td>28</td>
<td>96.6</td>
</tr>
<tr>
<td>Overall Percentage</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This classification table shows the degree to which the model is able to predict the rightful category (Pallant, 2005)and in this case decreasing and increasing in sales. Table 4.16 above shows that the logistic regression test was able to correctly predict the dimensions that have impact on company sales by 98.1%.
Table 4.15 Model Summary

<table>
<thead>
<tr>
<th>Step</th>
<th>-2 Log likelihood</th>
<th>Cox &amp; Snell R Square</th>
<th>Nagelkerke R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.773*</td>
<td>.733</td>
<td>.981</td>
</tr>
</tbody>
</table>

The Cox and Snell R$^2$ and the Nagelkerke R$^2$ values do quantify the variation of dependent variable as accounted for by the model summary. Table 4.17 above indicates that between 73.3% (Cox and Snell R$^2$) and 98.1% (Nagelkerke R$^2$) of the variance in performance was being explained by the model and the rest other variables not considered in the analysis. This shows that this is a good interpretation model.

Table 4.16 Variables in the equation

<table>
<thead>
<tr>
<th>Step 1</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95% C.I. for EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>DemandT</td>
<td>-14.663</td>
<td>2627.849</td>
<td>.000</td>
<td>1</td>
<td>.996</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>SupplyT</td>
<td>-5.586</td>
<td>1183.005</td>
<td>.000</td>
<td>1</td>
<td>.996</td>
<td>.004</td>
<td>.000</td>
</tr>
<tr>
<td>LiquidityT</td>
<td>40.029</td>
<td>3403.900</td>
<td>.000</td>
<td>1</td>
<td>.991</td>
<td>242390690389394, 784.000</td>
<td>.000</td>
</tr>
<tr>
<td>InterestT</td>
<td>-50.233</td>
<td>3191.026</td>
<td>.000</td>
<td>1</td>
<td>.987</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>GrowthT</td>
<td>20.645</td>
<td>1951.313</td>
<td>.000</td>
<td>1</td>
<td>.992</td>
<td>924384020.098</td>
<td>.000</td>
</tr>
<tr>
<td>IncomeT</td>
<td>-19.044</td>
<td>6091.818</td>
<td>.000</td>
<td>1</td>
<td>.998</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>EmployT</td>
<td>9.301</td>
<td>1737.483</td>
<td>.000</td>
<td>1</td>
<td>.996</td>
<td>10947.254</td>
<td>.000</td>
</tr>
<tr>
<td>TradeT</td>
<td>43.909</td>
<td>3800.266</td>
<td>.000</td>
<td>1</td>
<td>.991</td>
<td>117283707917996, 83000.000</td>
<td>.000</td>
</tr>
<tr>
<td>RecessionT</td>
<td>-86.139</td>
<td>5279.696</td>
<td>.000</td>
<td>1</td>
<td>.987</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>GovRegT</td>
<td>32.765</td>
<td>2196.237</td>
<td>.000</td>
<td>1</td>
<td>.988</td>
<td>169705417653054, 880</td>
<td>.000</td>
</tr>
<tr>
<td>Constant</td>
<td>381.290</td>
<td>100351.595</td>
<td>.000</td>
<td>1</td>
<td>.997</td>
<td>3.910E+165</td>
<td></td>
</tr>
</tbody>
</table>
Table 4.19 shows that none of the variables were statistically significant with sig. greater than 0.05 for all variables. This therefore means that no variable contributed significantly to the predictive ability of the model.

4.8 Conclusion

The chapter presented research findings and the analysis by utilizing a statistical testing based on analysis of independent variable as they affect performance. The nonparametric analysis was the test used to examine the data variance impact on dependent variable to check the difference effect with the independent variable. The Kruskal-Wallis test with more than two categorized data showed that only size had a significant impact on performance. Whereas, Mann-Whitney Test, with two categorized data showed that gender had no statistical significant impact on performance.

The analysis revealed that size was the only general factor that had statistically significant difference and was an explanatory variable. The correlation analysis results revealed that demand, interest and recession had some correlation with performance and were also statistically significant.
CHAPTER 5

CONCLUSION, RECOMMENDATIONS AND FURTHER RESEARCH

5.1 Introduction

This final chapter of the research concludes the study and provides recommendations based on the findings. The conclusions were drawn based on the objectives of the research and the theoretical and managerial recommendations were drawn from answering of the research questions. This chapter also suggests areas of further research which have been identified from this study. The conclusions to this research were based on the objectives which were set out in Chapter one and each of the objectives has its own conclusion.

5.2 Discussion of Main Hypothesis

The main hypothesis was aimed at determining whether the economic environment has an impact on the sales performance of the ferrochrome industry.

The results of this study indicated that there was some correlation between the external economic environment and sales as a performance indicator. The researcher concluded that indeed the economic external environment has significant impact on the performance of the ferrochrome industry in Zimbabwe. Although the results of the study have not supplied statistically significant support for all the relationships which had been hypothesized, the study gives some evidence concerning the influence of the external environment in organisations decision-making. The factors demand, recession and interest rate were established be statistically significant.

5.3 Discussion of Findings

One of the objectives of the study was, to establish the main economic variables that impact the sales performance of the ferrochrome industry.
The ferrochrome industry in the country has been devastated by the external economic environment to a greater extent as indicated by the unprecedented closure of companies in the industry. Out of the nine smelting companies in the country only 5 are running, a sure sign of a stressed industry. The running companies are the newest ones which are being operated by Chinese serve for Zimasco (one of the largest and oldest) which enjoys the advantages of economies of scale over the other smelters. The issue of size was established by Kruskal-Wallis Test in the study to be a factor which is statistically significant to explain performance.

**Factors leading to the poor performance in the ferrochrome industry**

The economic environmental factors which led to poor performance in the industry were established through this research to be mainly interest and recession among other factors. The two had medium and strong negative correlation respectively with performance. These two factors were also established to be statistically significant.

The ferrochrome industry is faced with many challenges in dealing with its economic external environment. Although this study produced results which were not statistically significant but it has advance an insight on the multifaceted nature of the effects of the external environment on the performance. A lot of other factors do affect organisation performance some political, some technological and some socio-economic. Organisations have to be aware of these and come up with policies and strategic that mitigate against their impact on organisation performance.

**5.4 Theoretical Contribution**

The contribution to theory was a good questionnaire which can be used by other researchers who may want to pursue further studies in the future. The questionnaire was crafted and organized in such a way that it captures all the relevant data on the subject matter.
5.5 Managerial Recommendations

An organisation ought to study and understand its external environment, because this environment is dynamic and any changes in this environment can either bring forth threats and/or opportunities. An appreciation of the effects of these changes is essential for strategic decision making.

An organisation can deal with external factors if it is big enough and has advantages of economies of scale. Ferrochrome producers must formulate strategies that help them to grow and possibly backward integrate power generation so as to overcome some shortages of power that are experienced in this industry. The fact that Zimasco (the largest smelting company) did not completely closed shop proves the fact that the economy of scale is significant in this industry.

The demand for ferrochrome continues to grow especially in developed countries being led by China, but in Zimbabwe, chrome ore resources for the lumpy ores are being depleted. There is need for technological development into production units that can consume the less competent, low grade, friable ore. The best technology would be to invest in pelletising and sintering technology.

Recession is part and parcel of a business cycle and it forms a downturn in the cycle with a general slowdown in economic activities. Recession was established in this study to be a predictor of sales and management needs to come up with strategies that counter the problems brought in by recession. Due to the fact that recession is part of the business cycle, management are able to estimate/predict when next it would hit and therefore can prepare and invest during good days through such vehicles as Sovereign Wealth Funds, for that bad patch so as to minimize the impact on organisation.

Interest rate is the cost of capital, it is the price paid for the use of money. Companies need capital for projects as well as for the operating expenses. The interest rates in Zimbabwe are high and prohibitive; however ferrochrome producers should aim to get cheaper loans from foreign banks. This should be possible considering that all these producers export almost 100% of their production. Management should also arrange for
pre-financing with their agents so that companies have working capital at all times. This will eliminate the need to borrow money from local banks for working capital.

5.5.1 Generalisation of findings

Companies in the mining sector in Zimbabwe are facing similar challenges like those being faced by the ferrochrome industry. Although platinum and gold are doing well, issue of high interest rates and recession also affect these sector, therefore it can be concluded that the findings of this study can be generalized to cover other mining sector in Zimbabwe.

5.6 Limitations

The study did not achieve 100% response rate. The high rate of the non-response from the target organisations was due to some restrictive policies in some companies and also the reluctance of some targeted respondents to send back the questionnaires. The response rate was also affected by operational problems in the industry where half of the companies in this industry are not operating. This affected the sample size which was rather small.

The research was also affected by limited time and other resources, which hamper efforts of getting more response. The results could have improved if more data was obtained for the analysis.

5.7 Area of Further Research

It is hereby suggested that a similar research be carried out aiming at those companies that did not respond and also target Chinese companies in this industry and then compare the results with the results of the current research. The Chinese companies appear to be doing much better under the same conditions and appear not to be affected by the external environment.
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30 May 2014

TO WHOM IT MAY CONCERN

Dear Sir/Madam

RE: ACADEMIC RESEARCH BY MR REUBEN ZENGENI (R944227Q)

This letter serves to confirm that Mr Zengeni is a bona fide Master of Business Administration (MBA) student at the Graduate School of Management, University of Zimbabwe. He is carrying out an academic research in partial fulfillment of the requirements of the MBA degree programme.

We kindly request you to provide him with the information that he requires. Please be assured that the Graduate School of Management upholds high levels of confidentiality and ethical standards in conducting research.

Thank you.

N. KASEKE (DR)
DIRECTOR, GRADUATE SCHOOL OF MANAGEMENT
PLEASE ANSWER THE FOLLOWING QUESTIONS BY CROSSING ( X ) THE RELEVANT BLOCK OR WRITING DOWN YOUR ANSWER IN THE SPACE PROVIDED.

SECTION A: Background Information

This section of the questionnaire refers to background or demographical information. Your co-operation is appreciated.

1. Gender
   - Male  
   - Female

2. Age (in complete years)
   

3. State the name of your organisation
   

4. Your highest educational qualification
   - Diploma
   - First Degree
   - Master Degree
   - Doctorate Degree
   - Other(specify)

5. Your length of service with your current employer
   - Less than one year
   - Between one and less than five year
   - Between five and less than ten years
   - Between ten and fifteen year
   - Over fifteen years

6. Your functional area in the organisation
   - Production or operations
   - Engineering
   - Human Resources
   - Finance or accounting
Section B

This section of the questionnaire explores the impact of the **economic environment** on sales made by ferrochrome companies in Zimbabwe.

1. **Demand**

<table>
<thead>
<tr>
<th>1.1) Poor demand for ferrochrome and the prevailing depressed prices affected the sales made by my company</th>
<th>1. Strongly disagree</th>
<th>2. Disagree</th>
<th>3. Not sure</th>
<th>4. Agree</th>
<th>5. Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2) Poor demand for ferrochrome and the resultant depressed mineral prices resulted in a decline in the sales made by company</td>
<td>1. Strongly disagree</td>
<td>2. Disagree</td>
<td>3. Not sure</td>
<td>4. Agree</td>
<td>5. Strongly agree</td>
</tr>
<tr>
<td>1.3) Poor demand for ferrochrome and the resultant depressed mineral prices contributed to increased sales made by my company</td>
<td>1. Strongly disagree</td>
<td>2. Disagree</td>
<td>3. Not sure</td>
<td>4. Agree</td>
<td>5. Strongly agree</td>
</tr>
<tr>
<td>1.4) Poor demand for ferrochrome and the resultant depressed mineral prices did not affect sales made by my company</td>
<td>1. Strongly disagree</td>
<td>2. Disagree</td>
<td>3. Not sure</td>
<td>4. Agree</td>
<td>5. Strongly agree</td>
</tr>
</tbody>
</table>

2. **Supply**

<table>
<thead>
<tr>
<th>2.1) Poor supply of ferrochrome and the prevailing depressed prices affected the sales made by my company</th>
<th>1. Strongly disagree</th>
<th>2. Disagree</th>
<th>3. Not sure</th>
<th>4. Agree</th>
<th>5. Strongly agree</th>
</tr>
</thead>
</table>
2.2) Poor supply of ferrochrome and the resultant depressed mineral prices resulted in a decline in the sales made by company

2.3) Poor supply of ferrochrome and the resultant depressed mineral prices contributed to increased sales made by my company

2.4) Poor supply of ferrochrome and the resultant depressed mineral prices did not affect sales made by my company

3. Banking and money (Liquidity)

3.1) Liquidity challenges in the economy affected company sales

3.2) Liquidity challenges in the economy resulted in a decline in the sales made by my company

3.3) Liquidity challenges in the economy contributed to increased sales made by my company

3.4) Liquidity challenges in the economy did not affect sales made by my company

4. Interest Rate

4.1) High bank loan interest rates affected company sales

4.2) High bank loan interest rates resulted in a decline in the sales made by my company

4.3) High bank loan interest rates contributed to increased sales made by my company

4.4) High bank loan interest rates did not affect sales made by my company

5. Economic Growth and development
5.1) Retarded economic growth and development affected company sales

5.2) Retarded economic growth and development resulted in a decline in the sales made by my company

5.3) Retarded economic growth and development contributed to increased sales made by my company

5.4) Retarded economic growth and development did not affect sales made by my company

6. **Income**

6.1) Rate of income affected company sales

6.2) Rate of income resulted in a decline in the sales made by my company

6.3) Rate of income contributed to increased sales made by my company

6.4) Rate of income did not affect sales made by my company

7. **Employment**

7.1) Employment density affected company sales

7.2) Employment density resulted in a decline in the sales made by my company
7.3) Employment density contributed to increased sales made by my company

7.4) Employment density did not affect sales made by my company

### 8. Trade Cycles

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8.2) Trade cycles in the ferrochrome market resulted in a decline in the sales made by my company</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.3) Trade cycles in the ferrochrome market contributed to increased sales made by my company</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.4) Trade cycles in the ferrochrome market did not affect sales made by my company</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 9. Recession

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9.2) Global economic recession resulted in a decline in the sales made by my company</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.3) Global economic recession contributed to increased sales made by my company</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.4) Global economic recession did not affect sales made by my company</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. **Government Regulations**

<table>
<thead>
<tr>
<th>Policy/Act/Regulation</th>
<th>Effect (please crossing the applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1) Government policy affected company sales</td>
<td>1. Positive</td>
</tr>
<tr>
<td>10.2) Government policy resulted in a decline in the sales made by my company</td>
<td>2. Negative</td>
</tr>
<tr>
<td>10.3) Government policy contributed to increased sales made by my company</td>
<td></td>
</tr>
<tr>
<td>10.4) Government policy did not affect sales made by my company</td>
<td></td>
</tr>
</tbody>
</table>

10.5) List the policies/acts/regulations that might have affected your organisation and specify the nature of their effects.

<table>
<thead>
<tr>
<th>Policy/Act/Regulation</th>
<th>Effect (please crossing the applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Positive</td>
</tr>
<tr>
<td></td>
<td>2. Negative</td>
</tr>
</tbody>
</table>

**SECTION C: CONTEXTUAL VARIABLES**

This section of the questionnaire explores the following control variables; company size, age and structure,

11. **Company size:** Please indicate (by marking with an X) in the relevant box the number of people currently employed by your organisation.
12. **Company age**: Please indicate with an X in the relevant box the age of your company.

13. **Company ownership structure**: Please indicate with an X in the relevant box the ownership structure of your organisation. The key provided below should be used as a guide:

Key:

1. Single business with local shareholders/control
2. Part of a group of businesses all locally owned/controlled
3. Subsidiary of a multinational company

**SECTION D: SALES PERFORMANCE**

Have the sales of your company been growing in the past five years? Please indicate with an X the applicable box.
14.1 Company sales increasing

14.2 Company sales not increasing

END OF QUESTIONNAIRE

Thank you for the support, effort and the time you dedicated to complete this questionnaire.
## APPENDIX 2 INFORMATION ON GENERAL FACTORS

### Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>40</td>
<td>76.9</td>
<td>76.9</td>
<td>76.9</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>23.1</td>
<td>23.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100.0</td>
<td>100.0</td>
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APPENDIX 3 TEST OF NORMALITY

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\(^a\) Lilliefors Significance Correction
## APPENDIX 4 CORRELATION STATISTICS

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<td>Sig. (2-tailed)</td>
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**. Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).