AN INVESTIGATION INTO THE IMPACT OF ENTERPRISE RISK MANAGEMENT (ERM) ON CORPORATE PERFORMANCE OF MANUFACTURING FIRMS IN ZIMBABWE.

MANJORO LEONARD

[R048730X]

A dissertation submitted in partial fulfillment for the requirements for the degree of Masters of Business Administration (MBA)

2014

GRADUATE SCHOOL OF MANAGEMENT

UNIVERSITY OF ZIMBABWE

SUPERVISOR: DR N. KASEKE
DEDICATION

This work is specially dedicated to my Mom, Mrs. Stella Manjoro
ACKNOWLEDGEMENTS

This research endeavor was never a solo effort. Faculty lecturers, in their own special way, played an important role in the general guidance of the research work. Special indebtedness is due to my research supervisor Dr. Kaseke for the apt and professional assistance in a very demanding task. Posthumously, the researcher would like to thank Mr. P Manjoro for the initiation into the world of research.

Special thanks to my classmates Munyaradzi S Choto, John Nyamasve, Martin Taruvinga, Addmore Chikobvu, Sekai Charangwa, Solomon Mwale, Belinda Murahwo, Tinashe Chimhanda and Jeffrey Tsvuura who were very instrumental in guiding me throughout my MBA studies.

I would like to equally thank the Manjoro, Mabika, Mambara and Murinzi families, in-laws, friends and relatives whose guidance, vision, leadership and commitment gave me the necessary motivation to complete this research.
DECLARATION

I, MANJORO LEONARD, do hereby declare that this dissertation is the result of my own investigation and research, except to the extent indicated in the acknowledgements, references, and by comments included in the body of the report, and that this dissertation is therefore my original work and has not been presented in part or in full for any other degree in any other University.

Signature ........................................ Date .........................

NAME: MANJORO LEONARD

Supervisor Declaration

I, Dr. N. Kaseke, 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.

Signature ........................................ Date .........................

NAME: DR. N. KASEKE

Graduate School of Management

University of Zimbabwe
ABSTRACT

In consecutive years notably, 2012, 2013 and 2014, manufacturing organisations in Zimbabwe had poor financial performances which were as a result of poor risk management structures. It was the researcher’s hunch that the phenomenon was not accidental but the impact of risk management on corporate performance could be identified and addressed at the institutional level. The researcher’s personal hunch gave rise to four main objectives that sought to reveal the impact of Enterprise Risk Management on corporate performance. Literature has shown that Enterprise Risk Management and corporate performance are indeed interlinked and firms that adopt such frameworks achieve visible results consistent with the literature.

With a view to establish this relationship a sample of twenty two manufacturing firms were selected. Data were collected through the use of questionnaires and the Statistical Package for the Social Sciences, SPSS was used to analyse the data. The researcher opted to use the survey design to collect data from a stratified sample of the designated population. Risk Management was characterized mainly as a framework that guides a common approach across the enterprise and as such risks have to be communicated in terms of their impact on the business and moreover there is overall accountability and ownership of every risk. The study revealed that there is a positive and significant relationship between risk management and corporate performance.

With the above results it can be noted mere adoption of Enterprise Risk Management for the sake of complying with regulation imposed by the regulators will never improve the financial performance of an organisation. The researcher therefore recommends that the board and top management commit themselves to avoid sudden surprises.
Contents
DEDICATION......................................................................................................................... ii
ACKNOWLEDGEMENTS....................................................................................................... iii
DECLARATION .................................................................................................................... iv
ABSTRACT ............................................................................................................................ v
CHAPTER 1 .............................................................................................................................. 1
  1.1: Introduction .................................................................................................................. 1
  1.2: Background to the study ............................................................................................ 1
    1.2.1: Zimbabwe manufacturing sector industry Analysis ............................................ 2
    1.2.2: PESTLE Analysis ............................................................................................... 3
    1.2.3: Porter’s five forces ............................................................................................. 5
  1.3: Problem Statement ..................................................................................................... 7
  1.4: Background to Enterprise Risk Management to manufacturing organisations .......... 8
  1.5: Research Objectives .................................................................................................. 7
  1.6: Research Questions ................................................................................................... 8
  1.7: Research Hypothesis .................................................................................................. 9
  1.8: Justification of the research ....................................................................................... 9
  1.9: Scope of the Research ............................................................................................... 10
  1.10: Dissertation Structure ........................................................................................... 10
  1.11: Chapter Summary .................................................................................................... 11
CHAPTER 2: .......................................................................................................................... 12
LITERATURE REVIEW ........................................................................................................... 12
  2.0: Introduction ................................................................................................................ 12
  2.1: Definition of terms .................................................................................................... 12
    2.1.1: Enterprise Risk Management (ERM) ................................................................. 12
    2.1.2: Corporate Performance ..................................................................................... 14
  2.2: Types of Risks Organisations in manufacturing are exposed to .................................. 14
    2.2.1: Internal risk factors ............................................................................................ 15
    2.2.1.1: Organizational and operational ..................................................................... 15
    2.2.1.2: Strategic risks ............................................................................................. 15
LIST OF FIGURES

Figure 2.1: COSO cube............................................................................................................. 18
Figure 2.2: The Hierarchy of Risk Pyramid .............................................................................. 21
Figure 2.3: Enhancing Corporate Performance through financing & Investment ............. 30

Figure 4.1: Do you have a dedicated risk management staff? ................................................... 55
Figure 4.2: Awareness of risk in your organisation .................................................................. 56
Figure 4.3: Company employ risk management techniques...................................................... 60
Figure 4.4: Right size of risk that prevents exposure ................................................................. 61
Figure 4.5: Risk head accountable for non compliance .............................................................. 62
Figure 4.6: Company in risk management research activities .................................................. 63
Figure 4.7: Company apply risk standard ISO31000 ............................................................... 64
Figure 4.8: Integration of financial and operational risk information into decision making...... 68
Figure 4.9: Performance linked management of risk profile .................................................... 70
Figure 4.10: Economic value from risk management structures .............................................. 71
Figure 4.11: Shareholder engagement in risk management strategy development and policy setting .................................................................................................................................. 73
Figure 4.12: Managerial support for risk management activities .............................................. 75
Figure 4.13: Company participate in risk seminars ................................................................... 76
Figure 4.14: Risk management department at the company ..................................................... 77
Figure 4.15: Location of risk management department ............................................................. 78
LIST OF TABLES

Table 4.1: Education level, number of years worked and response rates ........................................ 46
Table 4.2: Company age and size demographics ............................................................................. 47
Table 4.3: Reliability Statistics for questions on risk awareness .................................................... 48
Table 4.4: Company size and risk committee .................................................................................. 49
Table 4.5: Education vs. existence of risk committee Cross-tabulation ........................................ 51
Table 4.6: Education and existence of risk committee Cramer’s V & Chi-Square Tests ............... 52
Table 4.7: Company age and existence of risk committee Cross-tabulation ............................... 53
Table 4.8: Years company in existence and existence of risk committee Cramer’s V & Chi-
Square Tests ......................................................................................................................................... 54
Table 4.9: Reliability Statistics for questions on the company’s risk preparedness ...................... 57
Table 4.10: Risk Management structures adequacy ....................................................................... 57
Table 4.11: Risk Management adequacy and company age ........................................................... 58
Table 4.12: Company size vs adequacy of risk management structures ....................................... 59
Table 4.13: Risk Management adequacy and company size ......................................................... 59
Table 4.14: Reliability Statistics between risk management and corporate performance ............. 64
Table 4.15: ERM Sales impact vs company age .............................................................................. 65
Table 4.16: Years of company existence vs. ERM impact on sales Cramers’ V Chi-Square Tests ...
.............................................................................................................................................................. 66
Table 4.17: Total number of employees vs. Link between risk management and profitability ....... 67
Table 4.18: Total number of employees vs. Link between risk management and profitability
Cramers’ V and Chi-Square Tests ........................................................................................................ 67
Table 4.19: Reliability Statistics for questions for perceptions on the impact of risk .................... 74
Table 4.20: Relationship between company size and its bureaucratic risk response structures ............................................................................................................................................... 80
CHAPTER 1
INTRODUCTION

1.1: Introduction
In recent years, there has been an amplified need for companies to adopt Enterprise Risk Management frameworks in contrast to the silo based risk management approaches. Enterprise Risk management (ERM) strives to universally weigh up and manage risks that a firm is exposed to. In light of this, it uses the risk appetite of a firm to determine risk acceptance levels and risk moderation, (Moeller, 2014). In as much as there has been a significant increase in attention on ERM, minute educational investigations exist about the consequences of ERM on corporate performance (Moeller, 2014).

The purpose of this research is to examine the effect of ERM, and to ascertain whether corporates adopting ERM achieve visible results consistent with the declared benefits of ERM. The researcher believes that his effort is of great significance and timely because despite many research efforts stating the benefits of adopting ERM there has been modest practical verification on how ERM impacts on corporate performance.

This chapter focuses mainly on the introduction to the research, background to the study, statement of the problem, research objectives, questions, hypothesis, justification and also scope of the research.

1.2: Background to the study
In its “Assessing market attractiveness in Africa” investigation, Ernest and Young’s 2014 report illustrated that Zimbabwe has not yet recovered from a decade-long depression. The Zimbabwean economy is considered among a cluster of countries that are pretty
high risk environments and which do not possess any growth characteristics which are risk free and as such there is need for robust risk management structures.

The trade and manufacturing sector plays an important role in the economy of Zimbabwe. The sector contributes significantly to gross domestic output, export earnings and employment. It is well diversified and has strong linkages with other sectors of the economy particularly, agriculture, mining, services and construction. Manufacturing is vital to the Zimbabwe economy with 15% contribution to GDP and 26% contribution to exports making it amongst the largest foreign currency earner as of 2014, (Tetrad, 2014).

According to the Confederation of Zimbabwe Industries (CZI) (2013), manufacturing sector survey report, capacity utilisation in the sector dropped to 39.6 per cent from 44 per cent in 2012. The survey also showed that, for local manufacturers, competitiveness was diminishing with South Africa as the biggest competitor and China coming in second. According to CZI (2013), electricity outages continue to disrupt production while liquidity constraints have led to reduced demand for consumer goods.

The Zimbabwean economy was recently poorly ranked in the World Bank’s survey. One of the major drivers of the insignificant FDI is mainly as a result of the fact that Zimbabwe is considered a risky investment destination. Tetrad (2014), targeted at Zimbabwe’s political environment as deterring potential investors but have left a gap on the way these corporate are managing a plethora of these risks to enhance corporate performance and as such the researcher identified a need to investigate the impact of enterprise Risk management on corporate performance

1.2.1: Zimbabwe manufacturing sector industry Analysis
To better understand and appreciate the manufacturing sector in Zimbabwe the researcher made use of the PESTLE and the Porter’s 5 forces analysis
1.2.2: PESTLE Analysis

PESTLE, a concept in marketing principles describes a framework of macro-environmental factors used in environment scanning to analyse the environment they are operating in or are planning to launch a new product. PESTLE is a mnemonic which in its expanded form denotes Political, Economic, Social, Technological, Legal and Environmental. It gives a bird’s eye view of the whole environment from many different angles that one wants to check and keep a track of while contemplating on a certain plan, (Kotler & Armstrong, 2013)

1.2.2.1: Political factors

Political factors determine the degree to which government manipulate the economy, (Johnson, Whittington, Scholes, & Pyle, 2011). A company’s revenue generating structures might change due to the imposition of a new tax. Examples of political factors include tax policies, Fiscal policy and trade tariffs that a government may impose around and may affect the business environment to a great extent.

The political environment in Zimbabwe is not supportive of many manufacturing firms which are foreign owned due to its indegenisation policy which forces all foreign owned companies to cede 51% of their shares to locals and as such foreign owned companies relinquish their controlling power to locals as they can seldom be single majority shareholders

1.2.2.2: Economical factors

These factors are determinant of a country’s performance that have a direct impact on a company and have long term effects. These include macro-economic factors such as inflation rate, interest rates, foreign exchange rates and economic growth patterns, (Johnson et al., 2011). Despite the economy rebounding from a decade long period of hyper inflation from the introduction of the US$ as the local currency, manufacturing firms still face challenges of high cost of borrowing due to an illiquid financial and capital market. Business activity is to a greater extent seriously affected by liquidity shortage that has become visible in delayed salary payments, declining retail turnover values, un serviced bank loans, suppliers’ reduced remittances to pension funds and insurance
companies. These have a knock on effect on taxes due to government, which is now further delaying payments to private sector suppliers

1.2.2.3: Social factors
These factors examine the societal environment of the market and weigh determinants like cultural trends, demographics, and population (Thompson, Strickland, Gamble, & Gao, 2008).

1.2.2.4: Legal factors
These are laws and regulations that have to be abide by (Johnson et al., 2011). Manufacturing companies have to abide by consumer laws, for example, the Consumer Council of Zimbabwe (CCZ) whose objectives are to protect consumers, protect manufacturing standards, and improve consumer awareness through education and to settle disputes between consumers and suppliers. Consumers have universally accepted rights which must be honored failure of which there are stiff penalties and fines. Laws like the indigenization policy also have an effect on the way a company operates

1.2.2.5: Technological factors
These factors relate to advance in expertise that may have an effect on the operations of the industry (Thompson et al., 2008). New manufacturing plants and technologies have an impact on unit cost of production and so is output. Automated factories implies that more can be produced in less time with fewer to no wastage and as such the business can be competitive.

1.2.2.6: Environmental factors
Johnson et al. (2011), asserts that environmental deals with issues to do with limited natural resources, pollution and wastages. The Environmental Management Agency have huge penalties for emissions and environmental degradations and manufacturing companies who use natural resources have a huge exposure to these fines due to the nature of their businesses.
1.2.3: Porter’s five forces
One important element of industry and competitive analysis involves delving into the industry’s aggressive course of action to determine the main basis of competitive pressure and the strength of each force (Thompson et al., 2008). Porter (2011), postulates that despite competitive pressures in diverse industries being different, the competitive process works in the same way enough to make use of a common reasoned framework in weighing the nature and strength of competitive forces. Professor Michael Porter of the Harvard Business School has persuasively verified the state of competition in an industry.

1.2.3.1: Rivalry in the industries
The strongest of the five competitive forces is usually the jockeying for position and buyer favor that goes on amongst rival firm,(Thompson et al., 2008). Rivalry in manufacturing firms in Zimbabwe is strong mainly because the advent of the dollarization has wiped out small players and as such competitors have become more equal in size and capability and as such these firms are competing on a fairly even footing making it difficult for one firm to win the competitive battle and dominate the market. These companies equal in their sizes have tried to keep their manufacturing costs at rock bottom levels and keep prices at bay. Furthermore, it has become more costly to abandon the market and as such firms have an incentive to stay in and compete

1.2.3.2: Threat of entry
New entrants to a market bring new production capacity and substantial resources with which to compete. Because of the capital requirements and the larger amount of investment that is required to enter the market successfully prohibits new players to enter the market. Furthermore, the economies of scale deter entry because they force potential competitors to enter on a large scale basis or to accept a cost disadvantage (Thompson et al., 2008). There is a possibility of entry by foreigners who have the financial muscle to make a large scale entry but the indegenisation policy which
compels all foreign owned companies to cede 51% of their company shares is in itself a barrier.

1.2.3.3: Pressures from substitute products

Firms in one industry are quite often in close competition with firms in another industry because their respective products are good substitutes (Johnson et al., 2011). Manufacturers of plastic containers, for example are in direct competition with manufacturers of glasses. The companies in Zimbabwe’s manufacturing sector are close substitutes and as such the presence of readily available and competitively priced substitutes places a ceiling on the prices an industry can charge for its products without giving customers an incentive to switch to substitute products and risk sales erosion. This threat is even high because of Chinese products which are priced very low putting pressure on manufacturers to reduce their prices to the extent that some even close.

1.2.3.4: Power of suppliers

Whether suppliers to an industry are weak or strong, the competitive force depends on market conditions in the supplier industry and the significance of the item they supply (Porter, 2011). Suppliers to manufacturing companies in Zimbabwe have a weak bargaining power mainly because the raw materials they supply are usually standard and there are large numbers of suppliers with capacities to fill orders. Furthermore, manufacturers have an opportunity to purchase raw materials cheaply especially from Asian markets further weakening the power of suppliers.

1.2.3.4: Power of buyers

The power of buyers in the manufacturing sector in Zimbabwe is weak mainly because the buyers are small and many with none being able to purchase a sizeable percentage of an industry’s output and hence they have less clout in negotiating for price discounts. However because sellers’ products are in most cases identical and is relatively easy for buyers to switch from one supplier to the other, the power of buyers is high in this regard.
1.3: Problem Statement

After recovering in reaction to an end of the serious galloping inflation crisis, growth in the economy continues to be subdued. Zimbabwe has a very high current account deficit, exports do not offset imports. In 2013, the deficit amplified and only financed to a minute fraction by FDIs (Tetrad 2014).

Taking into account political uncertainties and deficient levels of foreign exchange reserves there is a visibly high risk of liquidity crisis. The fiscal deficit worsened in 2013 and triggered the IMF to postpone its proposed assistance necessary for improving its finances.

The indigenisation Act has also posed significant political risk and consequently the business environment is likely to deteriorate sharply. These problems have exposed businesses to a plethora of risks which threaten the viability of business operations and have presented companies with a strong need to manage risks. In light with the researcher found a need to investigate the impact of ERM on corporate performance and so firm value in light with attracting foreign investors.

1.4: Research Objectives

The main purpose of undertaking this study is to find out the impact of risk management on corporate performance. In particular the study seeks to:

1. Establish whether management and employees are aware and their preparedness of the risks the company is exposed to.
2. Establish the impact of Enterprise Risk Management on corporate performance.
3. Establish the relationship between Enterprise Risk Management and corporate performance
4. Determine management and employees' perceptions on the impact of risk on corporate performance.
5. Draw conclusions and give recommendations.
1.5: Background to Enterprise Risk Management to manufacturing organisations

Corporate failures and the global financial crisis that unfolded in the US in 2007 and subsequent crises in many countries underscored the need for manufacturing organisations to put in place adequate systems and controls to prevent the occurrences of such crises (Golshan & Rasid, 2012). Enterprise risk management emerged as the best practice approach that provided manufacturing firms with means for mitigating and controlling risks giving rise to such crises.

ERM was born out of the realisation that manufacturing organisations are operating in a dynamic environment which is characterised by constant, complex and rapid changes and require a more integrated approach to risk management. Gordon, Loeb, and Tseng (2009), postulate that risks inherent in manufacturing concerns are by their nature, dynamic, fluid and highly interdependent and as such need to be managed in an integrated way.

The pre-dollarisation crises characterised by high inflation levels and lack of liquidity in the market that occurred in Zimbabwe between 2003 and 2005 as well as in 2012 underscored the importance of senior management taking an integrated firm-wide perspective of risk management in order to support its ability to identify and react to emerging and growing risks in a timely and effective manner. Implementing and adopting a properly functioning enterprise risk management (ERM) programme therefore become increasingly important in the manufacturing sector.

1.6: Research Questions

For the purpose of investigating the impact of risk management on corporate performance, it is important to seek answers to the following research questions.

1. What is the level of risk awareness and preparedness of management and employees?
2. How does Enterprise Risk Management impact on corporate performance?
3. Is there a relationship between Enterprise risk management and corporate performance?
4. What is the perception on the impact of risk management on corporate performance from Management and employees?
5. What recommendations can be proposed from the results of the study?

1.7: Research Hypothesis
The following is the hypothesis that the study seeks to test.

$H_0$: Risk management has significant effect on the corporate performance of manufacturing firms.

$H_1$: Risk management has no significant effect on the corporate performance to manufacturing firms

1.8: Justification of the research
This research is expected to bring to light the risks that the manufacturing sector is exposed to and in this regard the company will take cognizance on identifying risks and controlling them before they can have a negative impact on the business. The ability to handle risk will assist the manufacturing companies act more assertively on future business decisions. The awareness of the risks they are exposed to will give them a variety of alternatives on how to deal with potential problems. It is also anticipated that the study will help the company take a proactive rather than reactive approach in managing risk and improve corporate performance as it will reduce sudden shocks and unwelcome surprises, Reduce wastages and improve on service delivery

Effective risk management will allow manufacturing concerns to identify strengths, weaknesses, opportunities and threats and planning for unanticipated events. By defining risk management processes, success is more likely by minimising and eliminating negative risks. This enables the company to meet budgets and fulfill targeted corporate objectives. The study will enable companies to maximise profits and
minimize expenses on activities that don’t produce a return on investment and to this end this research will enable the board to make an informed decision on their risk management policies as the study seeks take into account all the risks the company is exposed to.

Lastly, this research will benefit both the University of Zimbabwe and other students as it will be published and be a yardstick for future researches upon its publication.

1.9: Scope of the Research
The research seeks to investigate the effect of Enterprise Risk Management on corporate performance of manufacturing companies and as such the research was limited to manufacturing businesses. Because the researcher is based in Harare, the researcher had to direct his efforts to manufacturing companies in Harare. The period of research is limited from 2009 to 2014. The reason is principally after the predollarisation era so as to make meaningful comparison. Furthermore the time period is long enough to draw valid and reliable conclusions.

1.10: Dissertation Structure
Chapter 2: Focuses on literature interlinked to this study, that is, to determine the impact of Enterprise Risk Management (ERM) of corporate performance. The Chapter examines important terms, theories and models related to Enterprise Risk Management and corporate performance.

Chapter 3: The chapter serves the purpose of explaining the adopted methodology that was deemed appropriate for the intended research. It justifies methodology employed and the instruments that were used.

Chapter 4: Presentation and analysis of the research findings.

Chapter 5: Focuses primarily on the conclusion and recommendations that arise from this study.
1.11: Chapter Summary
This chapter sets the pace for the study; the chapter gave a brief background to the study and gave an overview of the manufacturing sector using the PESTLE and porter’s five competitive forces. The chapter also highlights the problem statement, research objectives, research questions, research hypothesis and justification of the research. This study will look at the impact of enterprise risk management on corporate performance
CHAPTER 2:
LITERATURE REVIEW

2.0: Introduction
The main focus of this chapter is to examine literature interlinked to this study, that is, to determine the impact of Enterprise Risk Management (ERM) of corporate performance. The Chapter examines important terms, theories and models related to Enterprise Risk Management and corporate performance. Initially the chapter defines important terms related to the study and goes on to look at the different types of risks that firms in manufacturing are exposed to. Secondly, the Chapter looks into the various forms of corporate performance and Enterprise risk management frameworks including the factors affecting the adoption of enterprise risk management. The final section of the literature review chapter looks at the conceptual framework of the relationship between enterprise risk management and corporate performance. The main purpose of the literature review is to guarantee that the researcher has a comprehensive understanding of the subject matter, recognize similar work done within the field and knowledge gaps that command further examination, critique existing findings and suggest further studies (Webster & Watson, 2002).

2.1: Definition of terms
2.1.1: Enterprise Risk Management (ERM)
The expression Enterprise Risk Management (ERM) shows a distinctive meaning than Traditional Risk Management (TRM). Enterprise involves merging all risk types with a view to tone down the risks. Integration refers to both combination of modifying the firm’s operations, adjusting its capital structure and employing targeted financial instruments (Meulbroek, 2002).

It was argued that the term ERM has quite similar meaning with Enterprise-Wide Risk Management (EWRM), Holistic Risk Management (HRM), Corporate Risk Management
(CRM), Business Risk Management (BRM), Integrated Risk Management (IRM) and Strategic Risk Management (SRM) (D’Arcy & Brogan, 2001); (Liebenberg & Hoyt, 2003) and (Kleffner, Lee, & McGannon, 2003)

Since its inception, ERM has been used meaning a plethora of different meanings. Many researchers have associated their writings and thoughts with ERM and it has emerged that they are meaning in fact meanings that are at variance with each other. Tetrad (2014), discussed about “business risk management”, “strategic risk management”, “holistic risk management”, “integrated risk management”, “corporate risk management”, and “enterprise-wide risk management” and it has become understandable that they are all talking about ERM, which is the new proxy of conventional silo-based risk management. There are various definitions of ERM appeared in the literature. Liebenberg and Hoyt (2003), have mentioned that ERM allows organizations to take lead of a large and integrated approach to risk management which is more offensive and tactical unlike the silo-based risk management which was primarily a defensive method of managing risk. The clearest definition of ERM, which comes from the inventor of an ERM framework, is:

A process, effected by an organization’s board of directors and management, applied in strategy setting and across the enterprise, intended to spot possible events that may have an effect on the entity and control risk to be within its risk appetite and provide reasonable guarantee as regards to the attainment of entity’s objectives (COSO 2004).

Committee (2003), defines Enterprise Risk Management as activities by which an organization evaluates, controls, take advantage of and scrutinize risks from all sources for the purposes of enhancing company value. Lam (2000), on the other hand, defines Enterprise Risk Management as an integrated framework for managing credit risk, market risk, operational risk, economic capital, and risk transfer in order to maximize firm value. Makomaski (2008), defines Enterprise Risk Management as a decision-making discipline that addresses variation in company goals.
Alviniussen and Jankensgård (2009), point out that Enterprise Risk Management is concerned about a holistic, company-wide approach in managing risks, and centralised the information according to the risk exposures. They use the term —Risk Universal, which is the risk that might impact on the future cash flow, profitability and viability of a company. If risk universe can be recognised, the next step is to take a suitable action such as risk mapping process, evaluating the likelihood and impact and control the risk based on the organisations’ objective. Therefore, Enterprise Risk Management can be defined as a systematically integrated and discipline approach in managing risks within organizations to ensure firms achieves their objective which is to maximize and create value for their stakeholders (Alviniussen & Jankensgård, 2009).

There are two key points that must be highlighted according to the definitions given above. The first key point is the main role of ERM itself is that it integrates and coordinates all types of risks across the entire organisation. It means that risks cannot be managed in silo approach. All risks occurred in the entity must be combined and managed in enterprise approach. The second key point is by using ERM, users are able to identify any potential incidents that may affect the organisation and know their risk-appetite. If the risk-appetite is specifically known, any decision made by the organisation to curb risks may be parallel with the firm’s objective (Walker, Shenkir, & Barton, 2003)

2.1.2: Corporate Performance

Corporate performance involves managing an organization's performance, according to key performance indicators (KPIs) such as revenue, return on investment (ROI), overhead, and operational costs (Damodaran, 2012).

2.2: Types of Risks

Organisations potentially face risks that are unique in their own way. Manufacturing firms in a similar vein are not spared since it also has unique type of risks that they are exposed to.
2.2.1: Internal risk factors

2.2.1.1: Organisational and operational
According to Waweru and Kisaka (2013), these include Operational and administrative procedures. Manufacturing firms are exposed to risks associated with inaccurate record keeping, outdated Information Technology systems and interruptions in the supply chain which as a result has a negative impact on both its suppliers and customers on the value chain.

2.2.1.2: Strategic risks
Stulz (2003), argues that manufacturing concerns are exposed to strategic Risks which affect the organization's ability to reach its goals outlined in its mission statement. These could stem due to the effects of changes in demand or scientific progression and could have a serious impact to business, for example, after PPC Cement built a 200 Million plant in Harare, cement producers were also forced to invest millions into their plants to remain competitive

2.2.1.3: Innovation
Every business needs to be innovative for it to continue to be ahead of competition. Marketing and promotional programs that are comprehensive in the marketing plan, staff training are good parameters of innovation. Lack of innovation can therefore pose a serious risk to a business progressing (Porter, 2011) as firms fail to compete on an equal footing due to higher unit of cost of production.

2.2.2: External risk factors

2.2.2.1: Compliance risks
Compliance risks are part of the set of laws that organisations must meet, such as taxation, employment, health and safety among others (Alviniussen & Jankensgård, 2009). Each business practices will influence the possibility of each risk, for example dust emissions and environmental degradations call for penalties from the Environmental Management Agency (EMA)
2.2.2.2: Political and economic

Manufacturing concerns just like any other business can be affected by a change of government and government policy. Likewise, economic changes, such as a depressions and interest rate fluctuations could be a risk (Makomaski, 2008).

2.3: Enterprise Risk Management Frameworks

The framework defines vital enterprise risk management components, converse key ERM philosophies and perceptions, suggests a universal ERM language, and provides clear path and direction for enterprise risk management.

2.3.1: The COSO framework

The Committee of Sponsoring Organisations of the Tread way Commission (COSO) which is a joint project of private sector organisations was established in the United States with an objective in business ethics and enterprise risk management (COSO, 2004)

Around 1992, the Committee of Sponsoring Organizations of the Tread way Commission (COSO) issued its internal control framework that has of late become an integral part of corporate accountability. COSO’s outline has become an important tool for executing the directives set forth in the Sarbanes-Oxley Act of 2002. Although the chief focus of the COSO report is internal control, the framework has inference for other area, (Hermanson, 2003) as outlined below.

2.3.1.1: Main Concepts of the Framework

The COSO framework entails several important concepts:

- Internal control is a development and not an end in itself.
- Internal control is not merely strategy, guidebook and forms but people.
- Internal control can be expected to provide only sensible assurance, not complete assurance.
• Internal control is directed to the attainment of objectives.

2.3.1.2: Goals of the Framework

According to COSO (2001) the goal is to develop an operational risk measurement methodology for:

i) Bringing into line risk appetite and strategy.
ii) Improve risk response decisions.
iii) Deplete operational surprises and losses.
iv) Manage cross-enterprise risks.
v) Grab hold opportunities.
vi) Improving management of capital.

2.3.1.3: The Objectives of the Framework

COSO (2004) defines internal control as a process, effected by an entity’s board of directors, management and other personnel, designed to provide "reasonable assurance" regarding the achievement of objectives in the following categories:

• Efficacy and competence of operations
• Dependability of financial reporting
• Conformity with appropriate laws and regulations.
• Preservation of Assets

According to COSO II (2004) risk management should filter across the organization and must not be the sole responsibility of the board and management. A dedicated risk function must however be at place to have a holistic view of risks facing an organization and align them to the organization’s business strategy(Lam, 2000).
2.3.1.4: Interrelated Components of Enterprise Risk Management

The COSO cube takes into consideration the organisation’s risk appetite and the risk management philosophy (COSO, 2004). An alertness of the risk appetites of key stakeholders and a philosophical dedication to support the organization’s risk appetite rooted in its strategic objectives, strategies, and other plans with those of the stakeholders. The importance of aligning risk appetites is not likely to be realised unless the organizational structure includes some level of responsibility of ERM for all employees and directors despite the power and accountability being with a risk committee of the board of directors.

On the other hand however, Hermanson (2003) argues that an organization needs to spell out its tactical objectives and the appropriate ways of achieving them. It should be aware of its risk appetite and has to strive that its risk appetite is aligned with the whole organisation’s objectives and its key stakeholders and external units involved in the supply chain such as suppliers and customers. An organisation should promote open...
dialogue with its shareholders since because risk/return preferences should be mutually approved upon by all interested parties (Moeller, 2014)

Spotting risk events that might have a negative blow on an organisation is a crucial step in developing the ERM Framework. Since there is a high chance of overlooking risks, organisations need to have risk categories and think about a variety of ways that such risks can occur (Pagach & Warr, 2010). There is also need to draw a clear distinction between risks and opportunities. All opportunities need to be fed back to the management strategy

At this stage, organizations approximate probabilities and impact of risk events. By cautiously taking into consideration the source and interdependencies with other risk events, organizations are in a better position to make these estimates. This also sets the pace on how these risks must be managed

Pagach and Warr (2010), agree with Kanhai and Ganesh (2014) in that deciding risk response is one of the most important decision that organisations make in trying to come up with an ERM framework. Because risk events by classification are tentative, deciding whether to accept or shun a risk-related activity can have considerable consequences for an organization. By deciding to lessen a risk, an organisation is committing to put into action control activities, which usually consume resources. Organisations must also be cautious to consider the impact of risk responses for a given risk on other risks (Golshan & Rasid, 2012).

An ERM Frameworks requires effective information systems and communication channels. The information systems should at least be able to track information to inform the organization about incidences of actual events, including those the company was able to avoid. Appropriate information is recognized and communicated to all relevant departments and personnel (COSO, 2004).

Frantz (2011), postulates that organizations that choose to reduce risks need to recognise control activities that they can make use of to reduce risks and must have a
clear understanding of the costs linked with them. Control activities under the COSO
ERM framework go beyond what have conventionally been termed control activities
under the concept of internal control. A control activity involves any scheme that lessen
the probability of any risk (Alviniussen & Jankensgård, 2009).

Wachinger, Renn, Begg, and Kuhlicke (2013), believes that monitoring is vital for a
sustainable ERM approach because it is at this point that the organisation makes
decisions about how to expand its ERM framework throughout the organisation.
Monitoring should also be an ongoing process not an event (Waweru & Kisaka, 2013).

2.3.2: The Hierarchy of risk

The “hierarchy of risk” is a realistic option to ERM that directs risk procedures into
reputational risk, financial risk and competitive risk. Risks are viewed in a variety of
dimensions requiring varied approaches of analysis.

The Hierarchy of Risk Approach has five components:

i) risk involves cost of and return on capital,
ii) risk is a threat and an opportunity,
iii) a single risk has multidimensional aspects,
iv) risks should be identified and communicated and
v) That risk management is not a fixed decision.
The hierarchy of risk approach looks at risks facing a company into three major categories; reputational, financial and competitive impact risk. This approach is of great importance to a manufacturing firm like Lafarge since it exposes the impact of risk classes to an organisation.

2.4: Factors affecting Adoption of Enterprise Risk Management

2.4.1. Firm size
It is a rational argument that when an entity’s size increases, the nature, timing and the scope of the events intimidating it will be altered as well. Larger entities are far more able to set aside greater resources for implementing ERM (Beasley, Clune, & Hermanson, 2005). Consistent with these rational theories, Colquitt, Hoyt, and Lee
(1999), found that larger firms have greater chance to implement integrated risk management concepts than smaller firms. Moreover, the study of Pagach and Warr (2010) revealed that larger firms have greater risk of financial distress and more volatile operating cash flows and as a result they are more likely to adopt ERM practices. In addition, Liebenberg and Hoyt (2003) also found that firm size is an important factor in deciding to implement ERM. COSO (2004), also mentions the importance of firm size when deciding to implement ERM in a firm. Therefore, the above noted literature suggests that there should be a positive significant relationship between the size of the firm and ERM implementation.

2.4.2. Firm complexity
Firm complexity is referred to the number of business divisions within a firm (Doyle, Ge, & McVay, 2007). In this regard, a firm with greater number of business divisions is considered more complex. To be more accurate, there are generally two types of complexity discussed in the literature. One form is industrial diversification, which indicated that a firm is operating in different related or unrelated industries. Another type of complexity is international diversification and is referred to firms with geographic segments. Both industrial and international diversifications are positively related to engagement of ERM framework. The reason is that diversified firms normally face multifaceted risks (Liebenberg & Hoyt, 2003). Meanwhile Gordon et al. (2009) and Pagach and Warr (2010), have found that firms which are more complex are more likely to implement ERM concept. Hence, the above-mentioned literature indicates that there should be a positive relationship between firm’s complexity and corporate performance.

2.4.3. Firm’s industries
When analysing the firm’s industry we have to take into cognisance that some industries are more regulated than the others are. Therefore, firms operating in intensive-regulated industries are more likely to adopt ERM and they have been at the forefront of ERM implementation. Two examples of these regulated industries are financial firms and energy firms (Pagach & Warr, 2010). Moreover, industry competition acts as an elementary worry for all the organisations. Since there are a number of firms with perfect substitutes for a firm’s products with competition very intensive there is a greater risk of not making sustainable level of profits. On the other hand, in some industries
firms have monopolistic situation where their products and/services are differentiated from one another. In such a situation firms face a moderately low risk of not recovering the cost of providing the goods or services.

Beasley et al. (2005), in their study of the level of ERM impact on corporate performance of 123 firms found that firms in banking and insurance industries have deployed further-developed ERM. Consistent with these results Liebenberg and Hoyt (2003) and Pagach and Warr (2010) affirmed that firms in financial services industry have long been implemented ERM. Also among studies performed to identify riskiest industries utilities, telecommunications, and oil & gas have been determined to be industries with highest risk (Frantz, 2011). Therefore as the literature suggests, regulated industries are more likely to have adopted ERM framework and that is the reason why despite being regulated which comes with a cost adopting such ERM frameworks have led organisation to outperform unregulated industries hence adopting ERM framework have a positive relationship to corporate performance.

### 2.4.4. Organisational culture

According to Cendrowski and Mair (2009), an organisational culture focused on risk management is the essential component of enterprise risk management adoption. There is a very strong correlation between taking culture into account and successful ERM implementation. Waweru and Kisaka (2013) define risk culture as the norms and traditions of behaviour of individuals and of groups within an organisation that determine the way in which they identify, understand, discuss and act on the risks the organisation confronts and takes.

### 2.4.5. Firm size

According to the Deloitte Global Risk Management Survey (2006) the size and complexity of the larger institutions make ERM more important while on the other hand, their very size and complexity also make it harder to achieve an enterprise-wide view of risk. The larger the entity implies the more intertwined its operations are. Hoyt and Liebenberg (2008), suggests that larger firms are likely to engage in ERM due to their relatively high complexity, the fact that they face a wider array of risks and their institutional size which enables them to bear the administrative cost of ERM adoption.
The two researchers concluded that there was positive relationship between size and ERM adoption. Cendrowski and Mair (2009), however, argue that despite the size, the risk function can be effectively executed from the finance department and as such they hold that the finance department can effectively manage and contain the organisation’s risks and as such there is no need for substantial managerial support for risk management activities.

2.4.6. Risk governance structure
Risk governance provides the hierarchical structure, which includes the way in which the ERM roles and responsibilities are divided among individuals, groups and departments. According to Waweru and Kisaka (2013) and Kanhai and Ganesh (2014) the risk governance structure of an organization is influential in the adoption of ERM as it determines how risk management will be organised in the institution. Kanhai and Ganesh (2014), pointed out that banks have largely settled on a model that centralises control and policy-making and decentralises execution and management. Kanhai and Ganesh (2014), further suggest that there is a perfect relationship between the level of education of top management and their ability to foresee the importance of enterprise risk management and as such he concludes that the more educated the top management, there greater is the probability of an organisation having a dedicated risk department and a risk committee. Waweru and Kisaka (2013), however argues that despite smaller organisation understanding the impact and implications of ERM, they do not have the financial muscle to have a dedicated risk management department.

2.5: How ERM affects corporate performance
For a long time it was understood that corporate risk management is immaterial to the value of the firm and the opinion in favour of the irrelevance were based on the Capital Asset Pricing Model (CAPM), Sharpe (1964), Lintner (1965); Mossin (1966) and the Modigliani-Miller theorem (Modigliani & Miller, 1958). One of the most important propositions of CAPM is that shareholders should care only about the systematic part of
total risk. On the face it would appear that this implies that managers should be indifferent about hedging of risks that are unsystematic. Miller and Modigliani’s suggestion supports CAPM findings. It has been argued that, while traditional risk management is largely concerned with shielding the firm against undesirable financial effects of risk, Enterprise Risk management makes risk management part of the company’s overall plan and enables companies to make better risk adjusted decisions that maximizes shareholder value (Lam, 2000).

Pagach and Warr (2010), find no significant stock price reaction (positive or negative) to ERM adoption. However, a cross-sectional analysis finds that firms in manufacturing industries that are more likely to experience costly lower tail outcomes have a positive stock price reaction around the adoption of ERM. These results are consistent with Stulz (2003) who points out that it is only firms that face these lower tail outcomes that will benefit from ERM, while other firms will see no benefit and could destroy value by spending corporate resources on risk management.

ERM creates value through its effects on companies at both a “macro” or company-wide level and a “micro” or business-unit level. At the macro level, ERM creates value by enabling senior management to quantify and manage the risk-return trade-off that faces the entire firm (Damodaran, 2012). Beasley et al. (2005), hold that by adopting this perspective, ERM helps the firm maintain access to the capital markets and other resources necessary to implement its strategy and business plan. Beasley et al. (2005), further holds that at the micro level, ERM becomes a way of life for managers and employees at all levels of the company. Though Beasley, (2005) has concentrated mainly on the macro level benefits of ERM, the micro-level benefits are extremely important in practice. As the researcher argues below, a well-designed ERM system ensures that all material risks are “owned and risk-return tradeoffs carefully evaluated, by operating managers and employees throughout the firm.

Beasley et al. (2005) claim that an increase in total risk can end up reducing value by causing companies to pass up valuable projects or otherwise disrupting the normal operations of the firm. These costs associated with total risk should be accounted for
when assessing the risk-return trade-off in all major new investments. On the other hand Damodaran (2012), holds that if the company takes on a project that increases the firm’s total risk, the project should be sufficiently profitable to provide an adequate return on capital after compensating for the costs associated with the increase in risk. Razali and Tahir (2011), further hold this risk-return trade-off must be evaluated for all corporate decisions that are expected to have a material impact on total risk and as such there is need for a dedicated risk department which should assess the risks the company is exposed to.

Moeller (2014) argues that the major challenge for a company implementing ERM is to ensure that decision-making not just by senior management, but by business managers throughout the firm, takes proper account of the risk-return trade-off. To make this happen, the risk evaluations of new projects must be performed, at least initially, on a decentralized basis by the project planners in the business units and as such there is need for an organisation to have a risk committee with the responsibility of making recommendations to the board of directors with respect to the amount of risk-taking activity in which the company should engage on an enterprise-wide level (Frantz, 2011). Frantz (2011), argues that firms that adopt Enterprise Risk Management are better able to keep their costs at a rock bottom level and as such can enhance their profitability. Frantz (2011) further suggests that organisations with management support for risk management activities perform better than those where the support of risk management activities is ignored or given little support.

Golshan and Rasid (2012) on the other hand argues that when an organisation adopts an ERM framework it risks avoiding too much business opportunities which has a negative impact on its revenue and, as such, has a negative effect on the bottom line profit. Golshan and Rasid (2012) asserts that every risk has a benefit attached to it and against that background the assumption that the adoption of an ERM framework has a negative impact on corporate performance.

COSO (2004), states that enterprise risk management provides enhanced capability to align risk appetite and strategy, that is, the degree of risk that a company is willing to
accept in pursuit of its goals. Management considers the entity’s risk appetite first in evaluating strategic alternatives, then in setting objectives aligned with the selected strategy and in developing mechanisms to manage the related risks. Kanhai and Ganesh (2014) also support COSO (2004) and conclude that ERM enables an organisation to link growth, risk and return. Moeller (2014), further suggests that entities accept risk as part of value creation and preservation and in this regard both expect return commensurate with the risk. Enterprise risk management provides an enhanced ability to identify and assess risks, and establish acceptable levels of risk relative to growth and return objectives.

Moeller (2014), further argues that ERM enhances risk response decisions and as such adopting an ERM framework provides the rigor to identify and select among alternative risk responses and acceptance and enterprise risk management provides methodologies and techniques for making these decisions which in turn minimize operational surprises and losses. Beasley et al. (2005) agree with Moeller (2014) in that entities that use ERM frameworks have enhanced capability to identify potential events, assess risk and establish responses, thereby reducing the occurrence of surprises and related costs or losses thereby enhancing the corporate performance.

According to Wachinger et al. (2013), an effective ERM program provide integrated responses to multiple risks since business processes carry many inherent risks, and as such enterprise risk management enables integrated solutions for managing the risks. Waweru and Kisaka (2013), postulate that ERM enables an organisation to be better positioned to seize opportunities. When adhering to an ERM framework, Management considers potential events rather than just risks and by considering a full range of events management gains an understanding of how certain events represent opportunities. Furthermore, more robust information on an entity’s total risk allows management to more effectively assess overall capital needs and improve capital allocation.
According to Kanhai and Ganesh (2014), Enterprise Risk Management is not an end in itself but to a certain extent an essential means. It cannot and does not function in separation in an entity, but somewhat is an enabler of the management process. Enterprise risk management is interconnected with corporate governance by providing information to the board of directors on the most considerable risks and how they are being managed and it interconnects with performance management by providing risk-adjusted measures and with internal control, which is an integral part of enterprise risk management and as such Kanhai and Ganesh (2014) argue that enterprise risk management helps an entity achieve its performance and profitability targets and prevent loss of resources.

Golshan and Rasid (2012) on the other hand, however, argue that effective enterprise risk management helps management achieve objectives but enterprise risk management, no matter how well designed and operated, does not ensure an entity's success. The achievement of objectives is affected by limitations inherent in all management processes, for example, Shifts in government policy or economic conditions can be beyond management's control. Additionally, controls can be circumvented by the collusion of two or more people and also management has the ability to override the enterprise risk management process, including risk responses and controls. Thus, while enterprise risk management can help management achieve its objectives, it is not a panacea.

Although there are many variations in the definition of ERM, the basic theme is that ERM is primarily a way of measuring, understanding and controlling the risks facing the firm. In most instances ERM is also viewed as a management tool that can identify profitable opportunities to enhance shareholder wealth. Risk management in this manner can ensure that no single project risk has an adverse effect on the overall firm (Modigliani & Miller, 1958).

Thus, according to Waweru and Kisaka (2013) ERM provides the potential benefit of reducing the direct and indirect costs associated with financial distress. ERM will have its greatest effect on earnings by reducing variability through controls on the risk of cost
centres and revenue sources. Consistent with this view of ERM Standard and Poor’s states that evaluations of firms’ enterprise risk management structures will focus on ensuring that firms are addressing all of their risks, setting proper expectations about which risks are and are not taken and setting methods that ensure that firms avoid losses outside tolerance levels.

2.6: Risk Perception and awareness
Starr (1969) was amongst one of the pioneers for the study on risk perception adopting Samuelson’s (1938) revealed preference approach, to investigate the risks which society could accept and those which they would reject. He assumes that employees and society have a balanced perception of risks such that any risk that is inherent in a society was considered acceptable and his most important suggestion was that people will accept controlled risk in spite of their impact than if they were uncontrolled.

Gustafsd (1998) assume his study based on prior researches which states that men and women posses difference in light to their perceptions of risk. His study focused primarily on how the view differed and tried to investigate the causes. He found out that quantitative and qualitative risk models that are used in the day to day operations of business give images that are at variance to each other with view to gender perceptions on risk.

Studies based on socio-demographic personalities of the population have also proved that more educated and people who have stayed with the organisation for some time approximate risk more accurately than other population groups (Hakes & Viscusi, 2004). They also found out that females unlike their male counterparts underestimated large risks and the accuracy of risk estimation of females depended more on age and education than for males. The same study also found that women saw all risks as higher than men did.
People with low education, low income, people who are younger, and blacks were generally found to have more fear of risks. Golshan and Rasid (2012).

2.7: Measuring Corporate Performance

Corporate performance involves managing an organisation’s performance, according to key performance indicators (KPIs) such as revenue, return on investment (ROI), overhead, and operational costs (Damodaran, 2012).

![Figure 2.3: Enhancing Corporate Performance through financing & Investment](image)

**Figure 2.3: Enhancing Corporate Performance through financing & Investment**

Source: Damodaran, (2012)

Corporate performance depends on good investment decisions. The financial manager evaluates investment decisions by asking several questions, including:

- How profitable are the investments relative to the cost of capital?
- How should profitability be measured?
- What does profitability depend on?
To answer these questions there is a need for managers to know their risk tolerance limits and act within such benchmarks. Shareholder value also depends on good financing decisions. The firm cannot grow unless financing is available and ensure that there is a sensible financing strategy and operating at a high debt ratio for example can expose the company’s assets and operations at risk.

2.8: Conceptual framework

Leite, Svinicki, and Shi (2010), defines conceptual framework as an interconnected set of ideas about how a particular fact is related to its parts. A conceptual framework is of great importance because it identifies variables and relationships.

Figure 2.3 is a conceptual framework that was developed by the researcher in line with the reviewed literature. The highlights of the framework are as follows:

2.8.1: Independent Variables

**Organisation size:** Kleffner et al. (2003), put forward that larger firms would be more likely to adopt ERM because of the need for a more complete risk management strategy. Hoyt and Liebenberg (2008), also investigated the value of Enterprise Risk Management and concludes that ERM usage is positively related to firm size. The larger the organization, the more multifaceted its operations will probably be and the more its exposure to intimidating events. Besides that, the larger the organisation, the more resources it will probably have to implement a more comprehensive ERM program.

**Board independence:** Kleffner et al. (2003) studies the factors that affect the level of ERM implementation and investigated whether Corporate Governance has played any role in the decision for companies to adopt ERM. Their study concluded that support from the board of directors plays a key role in determining ERM adoption in the company. Beasley et al. (2005), also studied the effect of board independence on the level of ERM implementation in companies and finds that more independent boards are positively associated with the company's level of ERM implementation. Board independence is usually connected with better corporate governance.
**Presence of Risk committee**- Risk committees have an essential role in the implementation of risk management in organizations. Liebenberg and Hoyt (2003), studied the determinants of ERM as supported by the appointment of a Chief Risk Officer and observed that though there was an absent explicit disclosure for ERM implementation, the appointment of a CRO can be taken as a strong signal of ERM implementation in the companies. Beasley et al. (2005), also investigated whether the presence of a CRO is positively associated with the deployment of ERM. The study finds that the presence of a CRO/Risk champion in senior management significantly increases the entity’s stage in ERM implementation.

**Growth** - Beasley et al. (2005) states that as a company’s growth rate increases, the scale of events threatening it are likely to differ in nature, timing, and extent. Therefore the faster a company is growing, the more likely it will embrace ERM. However, Hoyt and Liebenberg (2008) finds no significant relationship between the rate of growth of a company and its level of ERM implementation.

**2.8.2: Control variables**

To clearly isolate the relationship between ERM and value of the company, there researcher has to control other factors that could influence firm value (Liebenberg & Hoyt, 2003). The controlling variables the researcher uses are similar to those used by (Beasley et al. 2005).

**Size**

There is evidence that large firms are more likely to have ERM programs in place (Beasley et al., 2005; Colquitt et al., 1999; Liebenberg & Hoyt, 2003). Thus, it is necessary to control for size in the model because the ERM indicator may substitute for firm size.

The diagram depicts the expected relationship between the factors that affect the level of ERM implementation in a company, the level of ERM implementation and the value of the company. The diagram shows how the level of ERM implementation in a company is dependent to several factors and in turn how the value of a company can be affected by the level of ERM implementation.
INDEPENDANT VARIABLES

- Size
- Industry
- Board Independence
- Risk Committee
- Rate of Company Growth
- ERM a Regulatory requirement

LEVEL OF ERM

CONTROL VARIABLES

- Size
- Leverage
- Profitability
2.9: Summary

This Literature review chapter started with the introduction into the enterprise risk Management framework and went into looking at the factors affecting ERM and its impact on firm value. It then went on to review literature on Enterprise risk management frameworks. It finally went on to discuss the risks that Lafarge cement is exposed to. Empirical literature reviewed that indeed Enterprise Risk Management has a positive impact on firm performance.
CHAPTER 3

RESEARCH METHODOLOGY

3.0: Introduction
The chapter serves the purpose of explaining the adopted methodology that was deemed appropriate for the intended research. Essential elements of the chapter dealt with such issues as, research design and the instruments employed in the data collection process. The chapter also focused on the validity and reliability aspects of the research process. Another important inclusion related to detail regarding population, sample and sampling procedures. Since it was important that the instruments were pre-tested for suitability and appropriateness, a section of the chapter was devoted to describing the pilot study. A projection of how data would be analysed in chapter Four was also given.

3.1: Research Philosophy
A research philosophy is a belief about the method in which facts about an event should be collected, interpreted and used (Saunders, Saunders, Lewis, & Thornhill, 2011). This research will focus on positivism out of all the philosophies.

A Positivist philosophy to a research is based on facts gained from ‘positive’ authentication of observable experience rather than intuition and against this background scientific methods are the best way of achieving this knowledge. These methods ensure that there is a space between the personal biases of the researcher and the objectives. It has been noted that “as a way of life, positivism is in agreement with the view that knowledge comes from experience, Collins (2010). Positivists believe that reality is constant and can be observed from an objective view point without interfering with what is being studied.

For the purpose of this research, a positivist philosophy was chosen since the study focused on testing hypothesis developed from existing literature. The researcher also believed that reality is stable and can be observed from an objective point of view.
Furthermore, the researcher wanted to distance himself from subjective bias and would want to use the findings to a wider population and against this background there was need for a rigid control of variables which is in line with the positivist philosophy.

3.2: Research Design
Burns and Grove (1997), define a research design as “a blueprint for conducting a study with maximum control over factors that may obstruct with the soundness of findings”. Parahoo, Barr, and McCaughan (2000), on the other hand defines a research design as a plan that explains how, when and where data is to be collected and analysed. Polit and Beck (2008), describe a research design as “the researcher’s overall for answering the research question or testing the research hypothesis”. Descriptive research is designed to provide a picture of a situation as it naturally occurs (Burns & Grove, 1997). Its function is to rationalise current practice and come up with conclusions and also to come up with hypothesis. From this research’s perspective, descriptive research was used to obtain a picture of Management and employees’ opinions of the impact of enterprise risk on corporate performance with a view to improving the corporate performance in manufacturing firms.

The major limitation to this paradigm is that it may not be representative of the total population but the researcher made use of stratified sampling to ensure that all elements of the total population are adequately represented.

3.3: Research Approach
Saunders et al. (2011), have recognised the deductive and inductive approaches as the two main approaches to any research. For the purpose of this research, the researcher used the deductive approach because the researcher is concerned with developing a hypothesis based on existing theory from the literature on the interrelationship between enterprise risk management and firm performance and then designs a research strategy to test the hypothesis.
3.4: Research strategy
The research strategy chosen for the purpose of this study was a survey. According to Bell (1993), a survey will aim to obtain information from a representative selection of the population and from that sample it will then be able to present findings as being representative of the population as a whole. The objective was to obtain information that could be analysed. The researcher opted for a survey because of its ability to extract data that is near to exact characteristics of a larger population implying a good statistical significance. The researcher opted for a survey other than other research strategies because no other research method could provide this broad capability of describing the characteristics of a large population.

3.5: Research Choice
For the purpose of this research, the research choice was a quantitative data collection method where the researcher made use of questionnaires. The researcher found the quantitative method most appropriate to this research because the use of standard means in quantitative research means that any research may be simulated, analysed and also evaluate with other similar studies.

Quantitative research allows for greater precision and impartiality of results. This type of research is designed specifically to offer summaries of information that support generalisations regarding the area of study. Fewer variables also enable quantitative research to accomplish this objective. Moreover, it also employs prescribed methods to ensure both reliability and validity.

Finally, quantitative research is useful to finalise results and disprove or prove a hypothesis, thereby leading to the final answer which has been the researcher’s objective in trying to find the impact on enterprise risk management on corporate performance.
3.6: Population and Sample

When doing a research, since there are limited resources and time, the researcher then has to select just a portion of the population which truly reflects the entire population. A census involves enumerating the whole population whilst on the other hand a sample survey calls for investigating only a segment of the target group in which one is interested and deduce information about the group as a whole.

For the purpose of this research, a survey has many merits for this type of study mainly speed, low cost, and increased accuracy and analysis of the data, (Parten, 1950). Sampling consumes far less time to collect data as opposed to a situation that would call to survey the whole population. Processing and analysis of data also takes considerable less time than would be the situation if the entire population was to be examined. Data precision is also improved as the researcher has to deal with a relatively small amount of data (Parten, 1950)

On the other hand, however, sampling is not without its own shortfalls. The main disadvantages of sampling comprise lack of representativeness and inadequate sample size which can cause errors which can nullify the research results. A sample unintentionally entails the danger of dealing with incomplete information. Another challenge the researcher is faced with involves deciding the right sample size but the stratification method used enabled the whole population to be adequately represented.

3.7: Sampling Method

As noted above, surveying the whole population, consumes both financial resources and time. As a result a sample was carried out to investigate the impact on enterprise risk management on corporate performance. Resultantly, the sampling technique used to select the sample from a population must produce a sample that represents the population with as much assurance as possible (Kotler, 2013). This can be achieved by using sampling techniques that ensure that the sample is unbiased and is sufficiently large enough.
The researcher opted to direct the research on manufacturing firms since they are exposed to a multiple of risks. Consequently for the purpose of this research, the population comprised twenty two (22) manufacturing firms in Harare. In addition, these twenty two (22) companies fell into four categories and details of per category composition stood as follows:

- Category A (Clothing): 4 Companies
- Category B (Petroleum & Milling): 7 Companies
- Category C (Food): 7 Companies
- Category D (Metals & Milling): 4 Companies

**TOTAL**: 22

If the four categories had an equal number of manufacturing firms, random sampling would have given one company per each category as being representative thus amounting to four (4) companies. However, due to the uneven size of the categories (number of companies in each category), an additional company was randomly sampled from each of the zones B and C since they had 7 companies. Thus the final sample comprised one company from categories A and D and two companies from Categories B and C. The twenty two companies thus derived formed a sample of 27.27% of the population of manufacturing companies. This was acceptable as being representative of the population since according to Gay (1981) the minimum acceptable sample size is 10% of the population.

Christensen (1994) has expressed a widely accepted statement of reference by researchers that, "the larger the sample size, the better the study." Leedy (1993), concurs thus: "The basic rule is the larger the sample size the better." While this may be the ideal standard, it is however noted that as the sample size increases, the cost in
terms of money and time increases. The only progressive option would be to strike a reasonable balance as it is impossible to sample every element of the population.

The companies were composed of unique segments of employees, Management and Directors from whom vital information as sought by the survey. It became necessary then to stratify the sample according to categories cited above. According to Gay (1981), stratified sampling involves selecting a sample in such a way that identified subgroups in the population are represented in the same proportion that they exist in the population.

A variety of sampling techniques are available for use depending on the nature of the research and the characteristics of the surveyed population. These techniques can be divided into random and non-random sampling techniques. The researcher gives a brief description of some of these techniques below before justifying the most appropriate technique for this study. Random sampling techniques include simple random sampling and stratified random sampling. Some of the non-random sampling techniques are systematic sampling, cluster sampling, purposive or judgmental sampling, and convenience sampling.

Stratified random sampling is useful for heterogeneous populations. It is normally used when the researcher wants to decide on a sample that represents the population across many characteristics. Since manufacturing firms are made up of employees at different grades, whose views on the impact of enterprise risk management on corporate performance are required, stratified random sampling was appropriate for this study. All companies were put into strataums namely clothing, petroleum, Food and metals and samples were taken from each stratum.
3.8 Determining the Sample Size

3.8.1 Factors to consider in determining the sample size
When the researcher is sampling he will only be dealing with limited information about the population and there is a danger of the information being wrong when inferring population characteristics from a sample. So, a researcher should know the degree of accuracy he needs to seek from the research since there is a strong relationship between the degree of accuracy and the sample size (Kotler, 2013).

The confidence level and precision determine the sample size. A high confidence of for example ninety nine percent shows that the researcher seeks to minimize risk (Damodaran, 2012) This confidence level means that the researcher wants the true value being sought. The frequently used confidence level in surveys is 95 percent, and the precision is more often than not set at five percent as the unconditional minimum.

3.8.2 Calculating the sample size
Table 3.1 Table for Determining Minimum Returned Sample size for a given population Size

<table>
<thead>
<tr>
<th>Population size</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>55</td>
</tr>
<tr>
<td>200</td>
<td>75</td>
</tr>
<tr>
<td>300</td>
<td>85</td>
</tr>
<tr>
<td>400</td>
<td>92</td>
</tr>
<tr>
<td>500</td>
<td>96</td>
</tr>
<tr>
<td>600</td>
<td>100</td>
</tr>
<tr>
<td>700</td>
<td>102</td>
</tr>
<tr>
<td>800</td>
<td>104</td>
</tr>
<tr>
<td>900</td>
<td>105</td>
</tr>
<tr>
<td>1000</td>
<td>106</td>
</tr>
<tr>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td>1500</td>
<td>110</td>
</tr>
<tr>
<td>2000</td>
<td>112</td>
</tr>
<tr>
<td>4000</td>
<td>119</td>
</tr>
<tr>
<td>6000</td>
<td>119</td>
</tr>
<tr>
<td>8000</td>
<td>119</td>
</tr>
<tr>
<td>10,000</td>
<td>119</td>
</tr>
</tbody>
</table>

Source: Kotrlik and Higgins (2001)

Manufacturing firms understudy employees in excess of ten thousand employees and against that background 180 questionnaires were distributed which concurs with Kotrlik & Higgins (2001). This sample size was also consistent with Adler, Adler, and Rochford (1986) quoted in Robson (2002) who advised that a sample size of sixty (60) with a mean of thirty (30) is adequate for graduate students. Hogg and Tanis (2008), also state that a sample size greater than thirty (30) is ideal for large sample inference in business research thus a sample of 180 was representative of the total population.

3.9: Data Collection
Primary and secondary data were both used in this research.

3.9.1: Data Collection Instruments
Hussey and Hussey (1997) state focus groups, interviews, observations and questionnaires among the main methods of data collection in research. The researcher made use of questionnaires for this research. The questionnaire focused on the level of risk awareness and how management and employees perceived the effects and impact of enterprise risk management on corporate performance.

3.9.1.1: Questionnaire
A questionnaire consists purely of preset questions (Haralambos, Holborn, Heald, & Trowler, 2004). The main characteristics of a well designed questionnaire as outlined by Haralambos et al. (2004) are its ability to provide information being required and its
acceptability to the respondents. Above all, the instrument should not give problems at the analysis and interpretation stages of the research.

The questionnaire, therefore, consisted of closed and open ended items. The closed-ended items had predetermined set of choice answers for selection by respondents. This questionnaire approach had an added advantage of being able to plead for quick responses from the sample population on the impact of enterprise risk management and firm performance. The closed ended items allowed for collection of data that was easy to code and quantify. The inclusion of the open ended items was intended to seek any further points of explanation and additional contribution on the research questions.

3.9.1.2: Pilot Study

Christensen (1994) defines a pilot study as: an experiment that is conducted on a few subjects prior to the actual collection of data. A similar view of explanation was given by Robson (2002), “The first stage of any data gathering should be a “dummy run” – a pilot study. This helps you to throw up some of the inevitable problems of converting your design into reality

The value of this stage as detailed by Bell (1993) emphasized on the need to pilot data collecting instruments so that any items that did not yield usable data were removed. An added advantage that accrued with the trial run of the questionnaire was that it provided a great deal of information regarding accuracy and thus helped to reveal any ambiguity in the questionnaire. Some subtle factors for example, the wording and format of items that had the potential for negative influence on the survey were identified and rectified at this phase. These measures ensured that the survey was sufficiently edited to meet the test for validity and reliability

In light of the above, therefore, the researcher piloted the ten questionnaires and certain items on the questionnaire schedules had to be redesigned in response to the observed weaknesses. This helped to develop the instrument in such a way that it served to solicit the required information and against this background the pretested questionnaire could not be used in the final sample.
3.10: Data Analysis and presentation techniques
Responses from all questionnaires were analysed using the Statistical Package for Social Sciences (SPSS). Statistical principles such as percentages and bar graphs were used in descriptive data analysis and presentation. Spearman's Rank correlation coefficients were used to show strength and direct relationship between the impact of Enterprise Risk Management and corporate performance.

3.11: Validity and reliability
Validity of a questionnaire refers to the degree to which the instrument measures what it is set out to measure (Twycross & Shields, 2004). Face validity was accomplished by pre-testing the questionnaire. Content validity which measures the degree to which the instrument fits into the conceptual framework (Oluwatayo, 2012) was achieved by the use of expert verified through the submission of the questionnaire to the research supervisor for content verification.

Twycross and Shields (2004), defines reliability of a tool as referring to the instrument’s capability to produce similar data when it is re-administered using similar methods on the same sample. Oluwatayo (2012) affirms that there is assurance of the possibility of replication in quantitative research. Internal consistency, which tests for the homogeneity of items in the instrument (Oluwatayo, 2012) was assessed using the Cronach’s Alpha. Cronbach’s alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability. An alpha of between 0.7 and 0.9 was acceptable for this research.

3.12: Ethical considerations
There is need for principled liability of the researcher to the people who partake in the research study. In this regard, the following considerations were taken into account:

i) All names of the respondents were not disclosed
ii) All information was to be used for academic purposes only
iii) The researcher made sure that no offensive information was contained in the research
iv) The researcher kept the moral obligation of maintaining the confidentiality of data to ensure respondents anonymity
v) Permission was sought to carry out the study from relevant authorities

3.13: Limitations to the study
Due to the confidentiality of information, access to information was very difficult but the researcher’s position in the industry helped earn trust with respondents. The researcher also had pre-advised respondents on the academic nature of the information being gathered. Furthermore the companies were spread over and because the research was to be undertaken in a short time frame the sample had to be limited in order to make the task manageable. In addition the number of respondents who could be involved had to be limited because of budget constraints. There was need to cut down on travel and questionnaire expenses but without compromising the quality of the research

3.14: Chapter Summary
The research methodology used in this study was quantitative in nature. Because the research had well considered hypotheses, the deductive approach was used for this study. The study adopted a survey as the research strategy. The chapter also discussed aspects of validity and reliability of the research instrument. The Chapter also gave an overview of the data analysis and presentation techniques, in which the statistical tool, SPSS was used for that purpose. Finally, the chapter discussed the ethical considerations of the study
CHAPTER 4

FINDINGS AND ANALYSIS

4.0 Introduction
This chapter presents results of the study and also provides a discussion on them. It starts by analysing the response rate and the demographics followed by descriptive statistics to the research objectives.

4.1 Demographics of respondents and corresponding response rates
Table 4.1: Education level, number of years worked and response rates

<table>
<thead>
<tr>
<th>Highest education level</th>
<th>Years working for the company</th>
<th>Targeted respondents</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below 5 years</td>
<td>6-11 years</td>
<td>11-15 years</td>
</tr>
<tr>
<td>Certificate</td>
<td>10</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Diploma</td>
<td>6</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Graduate</td>
<td>9</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>PhD</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>40</td>
<td>41</td>
</tr>
<tr>
<td>Targeted respondents</td>
<td>30</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Response rate</td>
<td>90.0%</td>
<td>80.0%</td>
<td>82.0%</td>
</tr>
</tbody>
</table>

From the table above, the response rate is 80.6% and a total of 145 responded out of the 180 distributed. The table also summarises the respondent demographics. The response rate for those with below 5 years working experience was the highest at 90.0% and those with 16-20 years was the lowest at 73.3%. Using qualifications, the highest response was from graduates with the first or master’s degree which was at 88.3%. Generally the response rate was high, and this might be attributed to the fact
that the researcher hired research assistants to help in administering the questionnaires who had the time to do a proper follow up to all targeted respondents. The other reason for the high response rate is that the researcher is also in the manufacturing industry and has good relations with fellow employees from other companies and the issues of confidentially was no major source of concern.

4.2 Company demographics
The table below shows the company demographics, classified with the size of the organisation using the total number of employees and the age of the organisation.

<table>
<thead>
<tr>
<th>Years company have been in existence and total number of employees Cross-tabulation</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total number of employees</td>
<td>&lt;100</td>
<td>100-500</td>
<td>Above 500</td>
</tr>
<tr>
<td>Years company have been in existence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above 10 years</td>
<td>13</td>
<td>8</td>
<td>0</td>
<td>21</td>
</tr>
<tr>
<td>10-20 years</td>
<td>10</td>
<td>12</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>21-30 years</td>
<td>3</td>
<td>35</td>
<td>13</td>
<td>51</td>
</tr>
<tr>
<td>31-40 years</td>
<td>7</td>
<td>13</td>
<td>11</td>
<td>31</td>
</tr>
<tr>
<td>Above 50 years</td>
<td>4</td>
<td>1</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
<td>69</td>
<td>39</td>
<td>145</td>
</tr>
<tr>
<td>Percentage</td>
<td>25.5%</td>
<td>47.6%</td>
<td>26.9%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Most of the respondents (47.6%) were from the middle sized companies of 100-500 employees. The majority of the companies (35.2%) have been in existence for 21-30 years. The reason for middle sized companies having a large representation is that there are few small companies who are into manufacturing but into retail, most large manufacturing corporations either downsized and are now middle-sized or are no longer in operation due to a decade long country recession.
4.3 To establish company awareness to risk exposures.

Table 4.3: Reliability Statistics for questions on risk awareness

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach’s Alpha</td>
<td>.722</td>
</tr>
<tr>
<td>N of Items</td>
<td>6</td>
</tr>
</tbody>
</table>

The reliability test was conducted using SPSS and the Cronbachs Alpha = 0.722, which lies in the acceptable range of 0.7- 0.9 (Field, 2006), which meant the six questions which asked on whether management and employees are aware of the risk the company is expose to, were reliable. Reliability is concerned with the ability of an instrument to measure consistently; the reliability of an instrument is closely related with its validity. An instrument cannot be valid unless it is reliable (Tavakol&Dennick, 2011).
Table 4.4: Company size and risk committee

<table>
<thead>
<tr>
<th>Total number of employees</th>
<th>Does your organisation have a risk committee Cross-tabulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
</tr>
<tr>
<td>Less than 100 employees</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within</td>
</tr>
<tr>
<td>100-500 employees</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within</td>
</tr>
<tr>
<td>Above 500 employees</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within</td>
</tr>
</tbody>
</table>

From the above table it has been evident that most large organisations appreciate the benefits of ERM as evidenced with the existence of a risk committee within their organisations. Of the sample, 84.6% of large organisations have risk committees as opposed to 27% of smaller companies. Small companies, on the other hand do not have the financial muscle to implement a fully fledged ERM program as they may not reap the benefits. The results were consistent with Colquitt et al. (1999), who found out that that larger firms have greater chance to implement integrated risk management concepts than smaller firms. Pagach and Warr (2010), also revealed that larger firms have greater risk of financial distress and more volatile operating cash flows and as a result they are more likely to adopt ERM practices. The reason is that diversified firms normally face multifaceted risks (Liebenberg & Hoyt, 2003). Meanwhile Gordon et al. (2009) and Pagach and Warr (2010) have found that firms which are more complex are more likely to implement ERM concept. Hence, the above-mentioned literature indicates that there should be a positive relationship between firm’s complexity, the adoption of ERM framework and performance which concurs with the research findings.
<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>31.297$^a$</td>
<td>2</td>
<td>.000</td>
</tr>
<tr>
<td>Cramer's V</td>
<td>.465</td>
<td></td>
<td>.000</td>
</tr>
</tbody>
</table>

H$_0$: There is a no relationship between the firm size and the existence of the risk committee at workplace.

H$_1$: There is a relationship between the firm size and the existence of the risk committee at workplace.

The Chi-square P-value = 0.000 < 0.05, where the null hypothesis is rejected and we accept the alternative hypothesis and conclude that there is a relationship between the size of and the existence of the risk committee at workplace. The Cramer’s V = 0.465, where the value is closer to 0.5, therefore the relationship is fairly strong. Therefore there is strong relationship between companies with risk committees and company size.

According to Slakter, (1965), Pearson's chi-squared test ($\chi^2$) is a statistical test applied to sets of categorical data to evaluate how likely it is that any observed difference between the sets arose by chance. A value of 0 means no relationship and that of 1 implies strong relationship.
Table 4.5: Education vs. existence of risk committee Cross-tabulation

<table>
<thead>
<tr>
<th>Highest level of education</th>
<th>Does your organization have a risk committee</th>
<th>Count</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>Yes</td>
<td>10</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>43.5%</td>
<td></td>
<td>100.0%</td>
</tr>
<tr>
<td>Diploma</td>
<td>Count</td>
<td>0</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>.0%</td>
<td></td>
<td>100.0%</td>
</tr>
<tr>
<td>Graduate</td>
<td>Count</td>
<td>28</td>
<td>25</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>52.8%</td>
<td></td>
<td>100.0%</td>
</tr>
<tr>
<td>PhD</td>
<td>Count</td>
<td>30</td>
<td></td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>76.9%</td>
<td></td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>68</td>
<td>77</td>
<td>145</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>46.9%</td>
<td></td>
<td>53.1%</td>
</tr>
</tbody>
</table>

From the table above, 53.1% of the respondents do not have a risk committee at their organisations, while 46.9% have a risk committee at their organisation. The organisations with employees where the highest level of education is the diploma have a 100% no risk committee, whilst those 76.9% organizations with PhD employees have risk committees. 56.5% of the organizations who have graduate employees have risk committees at their work place. The companies with employees with high educational qualifications are those who have risk committees and this also shows that there will be available technical expertise.
Table 4.6 : Education and existence of risk committee Cramer’s V & Chi-Square Tests

<table>
<thead>
<tr>
<th>Highest level of education and existence of risk committee Cramer’s V &amp; Chi-Square Tests</th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>41.470(^{a})</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Cramer’s V</td>
<td>.535</td>
<td></td>
<td>.000</td>
</tr>
</tbody>
</table>

H\(_{0}\): There is a no relationship between the level of education and the existence of the risk committee at workplace.

H\(_{1}\): There is a relationship between the level of education and the existence of the risk committee at workplace

The Chi-square P-value = 0.000 < 0.05, where the null hypothesis is rejected and there is a relationship between the level of education and the existence of the risk committee at workplace. The Cramer’s V = 0.535, where the value is closer to 1 than 0, therefore the relationship is fairly strong. Therefore there is strong relationship between companies with risk committees employee employees with higher education qualifications.

ERM framework is a process, effected by an entity’s board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite and to provide reasonable assurance regarding the achievement of entity objectives (COSO, 2004). From the research findings, large organisations that are able to employee top management with high educational qualifications, can implement an effectiveness ERM framework at the respective organisations.
Table 4.7: Company age and existence of risk committee Cross-tabulation

<table>
<thead>
<tr>
<th>Years company have been in existence</th>
<th>Does your organisation have a risk committee</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Below 10 years</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>% within</td>
<td>19.0%</td>
<td>81.0%</td>
</tr>
<tr>
<td>10-20 years</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>% within</td>
<td>.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>21-30 years</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>% within</td>
<td>49.0%</td>
<td>51.0%</td>
</tr>
<tr>
<td>31- 40 years</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td>% within</td>
<td>67.7%</td>
<td>32.3%</td>
</tr>
<tr>
<td>Above 50 years</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>% within</td>
<td>90.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Total Count</td>
<td>68</td>
<td>77</td>
</tr>
<tr>
<td>% within</td>
<td>46.9%</td>
<td>53.1%</td>
</tr>
</tbody>
</table>

Eighty one percent of organisations with below 10 years of existence have no risk management committee at the workplace, whilst 100% of the companies with 10-20 years of existence have no risk management committee at work places. 67.7% of those with 30-40 years of existence have a risk committee. Ninety percent of those above 50 years old have a risk management committee. This shows that older companies have a risk management committee in place; this can explain their long survival periods in this highly volatile operating environment.
Table 4.8: Years company in existence and existence of risk committee Cramer’s V & Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>46.391&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Cramer’s V</td>
<td>.601</td>
<td></td>
<td>.000</td>
</tr>
</tbody>
</table>

H<sub>0</sub>: There is a no relationship between company years of existence and the existence of the risk committee at workplace.

H<sub>1</sub>: There is a relationship between company years of existence and the existence of the risk committee at workplace.

The chi-square P-value = 0.000 < 0.05, where the null hypothesis is rejected and there is a relationship between the company years of existence and the existence of the risk committee at workplace. The Cramer’s V = 0.601, where the value is closer to 1 than 0, therefore the relationship is fairly strong. Therefore there is strong relationship between companies with risk committees and its relative years of existence. According to Cendrowski and Mair (2009), an organisational culture focused on risk management is the essential component of enterprise risk management adoption. There is a very strong correlation between taking culture into account and successful ERM implementation. Waweru and Kisaka (2013) hypothesise that the number of years a company has been in existence has an influence on their risk appetite and risk tolerance.
Figure 4.1: Do you have a dedicated risk management staff?

Of the companies sampled 53.8% have a dedicated risk management staff, whilst 46.2% of the companies do not. The fact implies that some industries are more regulated than the others are. Unlike the banking sector where the adoption of a risk framework is mandatory with the adoption of Basel II framework, the manufacturing firms are not complied by statute to have a risk framework that it the reason why 53.8% of the sampled companies do not have dedicated risk management staff. This confirms with Pagach et.al (2010), who propose that firms operating in intensive-regulated industries are more likely to adopt ERM and they have been at the forefront of ERM implementation. Consistent with these results Lieenberg and Hoyt (2003) and Pagach and Warr (2010) affirmed that firms in financial services industry have long been implemented ERM. Also among studies performed to identify riskiest industries utilities, telecommunications, and oil & gas have been determined to be industries with highest
risk (Frantz, 2011). Therefore as the literature suggests, regulated industries are more likely to adopt an ERM framework.

![Figure 4.2: Awareness of risk in your organisation](image)

**Figure 4.2: Awareness of risk in your organisation**

A sizeable proportion of the employees are not sure (42.8%) are not aware of the relative risks at their respective organisations. Only 19.3% strongly agree and 33.1% agree that there are aware the risks associated with their respective organisations. These results are consistent with Pagach (2010) who highlights that the level of awareness is strongly related to the firm’s industry as less regulated industries like manufacturing unlike the banking sector are not complied to adopt ERM frameworks.
4.4 To determine risk preparedness.

**Table 4.9: Reliability Statistics for questions on the company’s risk preparedness**

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
<th>Cronbachs Alpha</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.767</td>
<td>5</td>
</tr>
</tbody>
</table>

The reliability test was conducted using SPSS and the Cronbachs Alpha = 0.767 which lies in the acceptable range of 0.7-0.9 (Field, 2006), which meant the five questions which asked on to, were reliable. Reliability is concerned with the ability of an instrument to measure consistently; the reliability of an instrument is closely related with its validity. An instrument cannot be valid unless it is reliable (Tavakol&Dennick, 2011).

**Table 4.10: Risk Management structures adequacy**

<table>
<thead>
<tr>
<th>Years company have been in existence</th>
<th>Adequate risk management structures</th>
<th>Count</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10 years</td>
<td>Extremely Negligible Negligible Indifferent Severe Extremely Severe</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>11</td>
<td>0</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>14.3%</td>
<td>19.0%</td>
<td>14.3%</td>
<td>52.4%</td>
<td>.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>0</td>
<td>13</td>
<td>2</td>
<td>7</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>.0%</td>
<td>59.1%</td>
<td>9.1%</td>
<td>31.8%</td>
<td>.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>10-20 years</td>
<td>Count</td>
<td>0</td>
<td>4</td>
<td>25</td>
<td>22</td>
<td>0</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>.0%</td>
<td>7.8%</td>
<td>49.0%</td>
<td>43.1%</td>
<td>.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>21-30 years</td>
<td>Count</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>24</td>
<td>4</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>.0%</td>
<td>9.7%</td>
<td>77.4%</td>
<td>12.9%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>31-40 years</td>
<td>Count</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>.0%</td>
<td>.0%</td>
<td>.0%</td>
<td>55.0%</td>
<td>45.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Above 50 years</td>
<td>Count</td>
<td>3</td>
<td>21</td>
<td>33</td>
<td>75</td>
<td>13</td>
<td>145</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>2.1%</td>
<td>14.5%</td>
<td>22.8%</td>
<td>51.7%</td>
<td>9.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
The companies which are below 10 years in existence have 0% extremely severe adequate risk structures in place. While those above 50 years of existence have 45.0% extremely severe adequate risk structures in place. This shows that the older the company the more prepared it is in risk management.

Table 4.11: Risk Management adequacy and company age

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>1.263E2</td>
<td>16</td>
<td>.000</td>
</tr>
<tr>
<td>Cramer's V</td>
<td>.467</td>
<td></td>
<td>.000</td>
</tr>
</tbody>
</table>

Ho: Company age has a relationship with adequacy of risk structures.
H₁: Company age has no relationship with adequacy of risk structures.
The Chi-square P-value = 0.000 < 0.05, Cramers' V = 0.467, therefore, test fail to reject the null hypothesis and the company age has a fairly strong relationship with adequacy of the risk structures. The older companies have better risk management structures in place.
Table 4.12: Company size vs adequacy of risk management structures

<table>
<thead>
<tr>
<th>Total number of employees</th>
<th>Adequate risk management structures</th>
<th>Count</th>
<th>% within</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extremely Negligible</td>
<td>3</td>
<td>8.1%</td>
</tr>
<tr>
<td></td>
<td>Negligible</td>
<td>10</td>
<td>27.0%</td>
</tr>
<tr>
<td></td>
<td>Indifferent</td>
<td>6</td>
<td>16.2%</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>10</td>
<td>27.0%</td>
</tr>
<tr>
<td></td>
<td>Extremely Severe</td>
<td>8</td>
<td>21.6%</td>
</tr>
<tr>
<td>Less than 100 employees</td>
<td>Total</td>
<td>37</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>0</td>
<td>.0%</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>11</td>
<td>15.9%</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>20</td>
<td>29.0%</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>37</td>
<td>53.6%</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>1</td>
<td>1.4%</td>
</tr>
<tr>
<td>100-500 employees</td>
<td>Total</td>
<td>69</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>0</td>
<td>.0%</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>7</td>
<td>17.9%</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>28</td>
<td>71.8%</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>4</td>
<td>10.3%</td>
</tr>
<tr>
<td>Above 500 employees</td>
<td>Total</td>
<td>39</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>0</td>
<td>.0%</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>75</td>
<td>51.7%</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>13</td>
<td>9.0%</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>145</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Of the units sampled 71.8% concur that indeed there is adequate risk management structures at companies with more than 500 employees. This is opposed to a (27.0% severely), 21.6% extremely severely adequate risk management structures at companies with less than 100 employees. This shows that large companies have more adequate risk structures compared to small companies.

Table 4.13: Risk Management adequacy and company size

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>39.274a</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>Cramer’s V</td>
<td>.368</td>
<td></td>
<td>.000</td>
</tr>
</tbody>
</table>

Ho: Company size has a relationship with adequacy of risk structures.
H1: Company size has no relationship with adequacy of risk structures.

The Chi-square P-value = 0.000 < 0.05, Cramers’ V = 0.368, therefore, test fail to reject the null hypothesis and the company size has not very strong relationship with adequacy of the risk structures. Therefore, in general the larger the companies the
better are its risk management structures. It is a rational argument that when an entity’s size increases, the nature, timing and the scope of the events intimidating it will be altered as well. Larger entities are far more able to set aside greater resources for implementing ERM (Beasley et al., 2005). Consistent with these rational theories, Colquitt et al. (1999), found that larger firms have greater chance to implement integrated risk management concepts than smaller firms.

![Bar chart showing responses to company employ risk management techniques](image)

**Figure 4.3: Company employ risk management techniques**

Of the sampled, 42.1% agree, 17.9% strongly agree that the company employees have risk management techniques as opposed to the 16.6% who disagree. Therefore, in general company employees have risk management structures. Most manufacturing industry employees have skills in risk management.
Figure 4.4: Right size of risk that prevents exposure

About 35.9% strongly agree, 35.9% agree that the companies have right sized risk for prevention to exposure, as opposed to 12.4% who disagree. Therefore, most companies are exposed to the risk size of risk and their risks are within acceptable range, and this explains their survival up to this time. Consistent with these results, Colquitt et al. (1999), found that larger firms have greater chance to implement integrated risk management concepts than smaller firms. Moreover, the study of Pagach and Warr (2010) revealed that larger firms have greater risk of financial distress and more volatile operating cash flows and as a result they are more likely to adopt ERM practices.
Figure 4.5: Risk head accountable for non-compliance

About 40.0% agree, 17.9% strongly agree that the risk head is accountable for non-compliance. Only 4.8% disagree that the risk head is accountable. Although there was a large number of respondents who were not sure, in general in the majority of the companies there is a risk head, who controls compliance to set risk management standards.

Moeller (2014), further argues that ERM enhance risk response decisions and as such adopting an ERM framework provides the rigor to identify and select among alternative risk responses and acceptance and enterprise risk management provides methodologies and techniques for making these decisions which in turn minimize operational surprises and losses and as such departmental heads should be held accountable for operational surprises that have an impact on the organisation.
Figure 4. 6: Company in risk management research activities

About 29.0% agree, 16.6% strongly agree that the company is involved in risk management activities, but however, 20.7% disagree, 2.1% strongly disagree. Therefore there are a fair number of companies who are involved in the risk management activities, but there is also a fair number which are not doing the same. According to COSO (2001) the goal is to develop an operational risk measurement methodology and as such risk management is a development and not an end and an organisation must continuously improve its workforce through researches and seminars.
Figure 4. 7: Company apply risk standard ISO31000

Approximately 47.6% agree, 9.7% strongly agree that the companies apply risk standards (ISO31000), opposed to 9.7%. Therefore, a relatively average fraction of manufacturing companies are applying risk standards that are up to date. In as much as the researcher would expect a sizeable fraction, it has been evident that manufacturing organisations are not compelled by law unlike banks to have such frameworks.

4.5 To establish the relationship between risk management and corporate performance

Table 4.14: Reliability Statistics between risk management and corporate performance

<table>
<thead>
<tr>
<th>Reliability Statistics for questions that asked on the relationship between risk management and corporate performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbachs Alpha</td>
</tr>
<tr>
<td>0.802</td>
</tr>
</tbody>
</table>
The reliability test (Cronbach’s Alpha= 0.802) for questions that asked on the relationship between risk management and corporate performance, This falls in the acceptable range of 0.7 to 0.9, therefore the questions are reliable. The questions are consistent and using the same set of data you get similar results.

Table 4.15 : ERM Sales impact vs company age

<table>
<thead>
<tr>
<th>Years company have been in existence</th>
<th>Enterprise risk management has impact on sales</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Disagree</td>
<td>Not sure</td>
</tr>
<tr>
<td>Below 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>% within</td>
<td>28.6%</td>
<td>38.1%</td>
</tr>
<tr>
<td>10-20 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>% within</td>
<td>45.5%</td>
<td>40.9%</td>
</tr>
<tr>
<td>21-30 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>9</td>
<td>22</td>
</tr>
<tr>
<td>% within</td>
<td>17.6%</td>
<td>43.1%</td>
</tr>
<tr>
<td>31- 40 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>% within</td>
<td>9.7%</td>
<td>51.6%</td>
</tr>
<tr>
<td>Above 50 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>% within</td>
<td>.0%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>28</td>
<td>60</td>
</tr>
<tr>
<td>% of Total</td>
<td>19.3%</td>
<td>41.4%</td>
</tr>
</tbody>
</table>

From the table above, 35.0% of the companies which have been in existence for over 50 years strongly agree that ERM has impact on sales, as opposed to the 0% strongly agree for the companies below 10 years of existence. There is a 0% who strongly disagree that ERM has an impact on sales. There are 52.6 % of those companies (30-40 years) who are not sure, with a 22.6% who strongly agree that ERM has an impact on sales.
Table 4.16: Years of company existence vs. ERM impact on sales Cramers’ V Chi-Square Tests

<table>
<thead>
<tr>
<th>Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>40.211a</td>
<td>12</td>
<td>.000</td>
</tr>
<tr>
<td>Cramer’s V</td>
<td>.304</td>
<td></td>
<td>.000</td>
</tr>
</tbody>
</table>

H₀: Years of company existence has a relationship with ERM having impact on sales
H₁: Years of company existence has no relationship with ERM having impact on sales

The Chi-square P-Value = 0.000 < 0.05, the test failed to reject the null hypothesis, and the years of company existence is related on how ERM have an impact on sales. Cramers’ V = 0.304, the relationship is not so strong. Therefore there is no direct strong bearing on ERM’s impact on sales with the company life span.
Table 4.17: Total number of employees vs. Link between risk management and profitability

<table>
<thead>
<tr>
<th>Total number of employees</th>
<th>Disagree</th>
<th>Not sure</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 100 employees</td>
<td>Count</td>
<td>6</td>
<td>24</td>
<td>7</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>16.2%</td>
<td>64.9%</td>
<td>18.9%</td>
<td>100.0%</td>
</tr>
<tr>
<td>100-500 employees</td>
<td>Count</td>
<td>13</td>
<td>24</td>
<td>23</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>18.8%</td>
<td>34.8%</td>
<td>33.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Above 500 employees</td>
<td>Count</td>
<td>0</td>
<td>4</td>
<td>25</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>.0%</td>
<td>10.3%</td>
<td>64.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>Count</td>
<td>19</td>
<td>52</td>
<td>55</td>
<td>145</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>13.1%</td>
<td>35.9%</td>
<td>37.9%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

From the table above for companies with less than 100 employees 18.9% agree, 0% strongly agree that there is a link between risk management and profitability. However there is 64.9% who are not sure. For the big companies with over 500 employees, 64.1% agree and 25.6% strongly agree, with no one disagreeing.

Table 4.18: Total number of employees vs. Link between risk management and profitability Cramers’ V and Chi-Square Tests

| Total number of employees vs. Link between risk management and profitability Cramers’ V and Chi-Square Tests |
|-------------------------------------------------|---------------------------------|
| Pearson Chi-Square                               | Value                      |
|                                                 | 43.428<sup>a</sup>          |
| df                                              | 6                            |
| Asymp. Sig. (2-sided)                           | .000                         |
| Cramer’s V                                      | .487                         |

The chi-square test, P-value = 0.000 < 0.05, Cramers’ V = 0.487, therefore there is a fairly strong relationship between the size of the company and their respective link
between risk management and profitability. Therefore on big companies the existence of ERM has a positive impact on profitability, where profits are increased by the presents of ERM system. On small companies, the impact is minimal and sometimes negative. Moreover, the study of Pagach and Warr (2010) revealed that larger firms have greater risk of financial distress and more volatile operating cash flows and as a result they are more likely to adopt ERM practices. In addition, Liebenberg and Hoyt (2003), also found that firm size is an important factor in deciding to implement ERM. COSO (2004), also mentions the importance of firm size when deciding to implement ERM in a firm. Therefore, the above noted literature suggests that there should be a positive significant relationship between the size of the firm and ERM implementation.

![Figure 4.8: Integration of financial and operational risk information into decision making](image)

Figure 4. 8: Integration of financial and operational risk information into decision making
The graph above, 26.9%, say that the integration of financial and operational risk information have a severe impact on decision making, whilst 19.3% say that it is extremely severe. Only 2.1% say it is extremely negligible, 4.1% say negligible. Therefore, the integration of financial and operational risk information have an impact on the decision making process which has a direct bearing on company performance. From the research findings, when a company integrate financial and operational risk information into the decision making process, the company performance improves.
Figure 4.9: Performance linked management of risk profile

From the graph above, 44.8% agree, 11.0% strongly agree that company performance is positively linked to the management risk profile. This is opposed to 2.8% who strongly agree, and 9.0% who disagree. Therefore, the results reveal that a company with a good management risk profile has high performance as postulated by (Westhead, 2006)
Figure 4.10: Economic value from risk management structures

Figure 4.10 shows that 38.6% agree, 7.6% strongly agree that there is an economic value from establishing risk management structures at companies, as opposed to 11.0% who disagree. It can therefore be implied that economic value is derived from establishing risk management structures at companies.

These results are consistent with the literature which holds that ERM creates value through its effects on companies at both a “macro” or company-wide level and a “micro” or business-unit level. At the macro level, ERM creates value by enabling senior management to quantify and manage the risk-return trade-off that faces the entire firm (Damodaran, 2012).

Beasley et al. (2005), holds that by adopting this perspective, ERM helps the firm maintain access to the capital markets and other resources necessary to implement its strategy and business plan.
Figure 4.11: Shareholder engagement in risk management strategy development and policy setting

About 26.9% say it is severe, 19.3% say extremely severe that stakeholder engagement in risk management strategy development and policy setting has an impact on company performance. Only 2.1% say it is extremely negligible, 4.1% say negligible it is negligible. Therefore, stakeholder engagement in risk management strategy development and policy setting has a positive impact on company performance.
4.6. To determine both the management and employees’ perceptions on the impact of risk on Manufacturing industry in Zimbabwe’s performance

Table 4.19: Reliability Statistics for questions for perceptions on the impact of risk

<table>
<thead>
<tr>
<th>Cronbachs Alpha</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.717</td>
<td>5</td>
</tr>
</tbody>
</table>

The reliability test (Cronbach’s Alpha = 0.717) for questions that asked on determination of management and employees’ perceptions on the impact of risk on Manufacturing industry Zimbabwe’s performance. This falls in the acceptable range of 0.7 to 0.9, therefore the questions are reliable. The questions are consistent and using the same set of data you get similar results.
Figure 4. 12: Managerial support for risk management activities

From the figure above 58.6% of highlighted that management support at company level is about right, and 22.8% indicated that there is a substantial managerial support for risk management activities, as opposed to the 6.9% who said there is little support. Therefore, generally most managers in the manufacturing industry support risk management activities. Managers’ perceptions on the impact of risk of the manufacturing industry are high.
Figure 4.13: Company participate in risk seminars

About 30.3% agree, 11.7% strongly agree that their companies participate on risk seminars, as opposed to the 13.8% who disagree, and 2.1% who strongly disagree. We can deduce that most manufacturing companies participate on risk seminars. This reinforces that managers and employees take seriously the impact of risk on their respective companies.
Figure 4.14: Risk management department at the company

Of the companies 64.8% have their risk management based in the finance department, whilst 34.5% of the manufacturing companies specific risk management departments. This shows that top level management take risk seriously to the extent that some will have a separate risk department who are there only to access and manage the risk. The reason however why the finance department handles manufacturing organisations’ risks was explained by Cendrowski and Mair (2009), who argue that despite the size, the risk function can be effectively executed from the finance department and as such they hold that the finance department can effectively manage and contain the organisation’s risks and as such there is no need for substantial managerial support for a designated risk function to effectively manage an entity’s risk.
The majority (66.9%) of the companies has their risk function based at the head office, and (24.8%) have it based at the subsidiary branch. This shows that in general management is taking the issue of risk seriously, to the extent that it is based at the central controlling head office.

Figure 4.15: Location of risk management department
Table 4.16: Total number of employees Vs Bureaucracy in risk response implementation Crosstabulation

<table>
<thead>
<tr>
<th>Total number of employees</th>
<th>Negligible</th>
<th>Indifferent</th>
<th>Severe</th>
<th>Extremely severe</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 100 employees</td>
<td>Count</td>
<td>10</td>
<td>23</td>
<td>4</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>27.0%</td>
<td>62.2%</td>
<td>10.8%</td>
<td>100.0%</td>
</tr>
<tr>
<td>100- 500 employees</td>
<td>Count</td>
<td>4</td>
<td>31</td>
<td>28</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>5.8%</td>
<td>44.9%</td>
<td>40.6%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Above 500 employees</td>
<td>Count</td>
<td>0</td>
<td>6</td>
<td>22</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>.0%</td>
<td>15.4%</td>
<td>56.4%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>14</td>
<td>60</td>
<td>54</td>
<td>145</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>9.7%</td>
<td>41.4%</td>
<td>37.2%</td>
<td>11.7%</td>
</tr>
</tbody>
</table>

Big companies with over 500 employees have 56.4% severe, 28.2% extremely severe bureaucratic structures for risk response implementation. Only 10.8% of the small companies have severe bureaucratic risk response structure, with none which is extremely severe. This can show that companies take risk seriously to the extent that there have so many protocols on risk response, to the extent that it has negative effects of slowly the response.
Table 4.20: Relationship between company size and its bureaucratic risk response structures

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>51.743(^a)</td>
<td>6</td>
<td>.000</td>
</tr>
<tr>
<td>Cramer’s V</td>
<td>.597</td>
<td></td>
<td>.000</td>
</tr>
</tbody>
</table>

\(H_0\): There is a relationship between company size and its bureaucratic risk response structures

\(H_1\): There is no relationship between company size and its bureaucratic risk response structures

Chi-square P-value =0.000 < 0.05, Cramer’s V = 0.597, which shows that there is a relatively strong relationship between company size and its risk response structures, with big companies having bureaucratic risk structures. This structure can slow down the response rate, but it ascertains that the right response is passed on.
CHAPTER 5

CONCLUSIONS & RECOMMENDATIONS

5.1: Introduction
This Chapter concludes the research study and gives recommendations based on the research findings.

5.2: Conclusion
The researcher concludes that, ERM is a useful device for managing modern manufacturing firms’ risk exposures and many firms have adopted ERM due to their understandings about ERM and its benefits to organisations.

5.2.1: Risk awareness was high
The research concludes that the level of management and employee risk awareness was high. Everyone had an idea that risk management is a process and not a destination. Management and employees had an understanding of the impact of risk management to both sales and performance but however most employees were not aware on how these risks were interlinked to each other.

5.2.2: Impact of ERM on corporate performance
The researcher concludes that indeed ERM had an impact on corporate performance and as such is a necessary evil to manufacturing organisations but however small companies do not benefit from such a robust system which could equally be executed by the finance function
5.2.3 Relationship between Enterprise Risk Management and Corporate performance

Indeed, the research concluded that there is a relationship between enterprise risk management and corporate performance but there were conflicting results on whether firms adopting ERM had consistent positive results. On one hand, firms adopting ERM frameworks unlike traditional fragmented risk management practices were better able to manage and address critical risks within reasonable limits while on the flip side these firms had a disadvantage of missing out on profitable but risky business ventures but while all has been said the researcher concluded that despite firms missing on business opportunities with had short term benefits, firms adopting ERM are more stable financially in the long run than those adopting silo based risk management frameworks.

5.2.4 Perception on the impact of risks

It has been concluded that the level of Education and the number of years an employee has been with an organization indeed explained how they perceived certain risks facing their organization. It was concluded that the more the number of years an employee has been with the organization, the better is their view on the impact of a risk on corporate performance.

5.2.5 Research hypothesis evaluation

\(H_0\): Enterprise Risk management has no significant effect on the corporate performance to manufacturing firms.

\(H_1\): Enterprise Risk management has significant effect on the corporate performance of manufacturing firms.

The study has shown that Enterprise Risk Management has an effect on the corporate performance of manufacturing firms so the author rejects the null hypothesis and concludes that Enterprise Risk management has significant effect on the corporate performance of manufacturing firms.

5.3: Recommendations

Based on the results of the study, the researcher recommends the following
5.3.1: Managerial Recommendations
1. Management can help firms achieve the real benefits of ERM and by networking with risk professionals. They also need to challenge the external auditors to get appropriate support for this initiative. The auditors should educate their board about ERM to ensure the right outcomes.
2. It is necessary that the board drive the ERM exercise. Everyone in the organisation must be accountable for managing some aspect of risk. All individuals must be educated with basic risk management skills.
3. It is essential that an organisation must clearly communicate its risk appetite and develop good risk culture.

5.3.1: Theoretical Recommendations
1. The government should come up with legislation that governs all manufacturing organisations. The legislation should ensure that the value of an organisation is enhanced.
2. There should be robust training programs especially to start up and medium sized companies.

5.3.3: Areas of further research
The researcher recommends the following for further research:

- The assessment of the implication of ERM in avoiding corporate failures on the companies listed on the Zimbabwe Stock Exchange (ZSE).
References


