



INTEGRATION OF RISK MANAGEMENT IN BUSINESS ORGANISATIONS: A STUDY OF
ZAMBIA

Dissertation Manuscript

Submitted to Unicaf University
in partial fulfillment of the requirements
for the degree of Business Administration

Doctor In Business Administration

By Peter Silwimba
July 2022

Approval of the Thesis

INTEGRATION OF RISK MANAGEMENT IN BUSINESS ORGANISATIONS: A STUDY OF ZAMBIA

This Thesis by Peter Silwimba has been approved by the committee members below, who recommend it be accepted by the faculty of Unicaf University in partial fulfilment of requirements for the degree of

Doctor In Business Administration.

Thesis Committee:

Dr Solomon Olajide Fadun, Supervisor	20.07.2022
--------------------------------------	------------

Dr Elena Papadopoulou, Chair	20.07.2022
------------------------------	------------

Dr Olowokudejo Folake Feyisayo, External examiner	20.07.2022
---	------------

Dr Benson Benedict Okech, Internal examiner	20.07.2022
---	------------

Abstract

INTEGRATION OF RISK MANAGEMENT IN BUSINESS ORGANISATIONS: A STUDY
OF ZAMBIA

Peter Silwimba

Unicaf University

The goal of this study was to use Zambia as a case study to investigate the adoption of risk management integration, or RMI for short in this paper. The study took into account both financial institutions (FI) and non-financial institutions (NFI) when comparing the parameters relevant to the scope of the RMI. The research problem was that while all businesses are getting increasingly exposed to high risk, they are not responding proportionately by increasing their RMI. Despite the fact that many studies on the benefits of RMI in organisations have been published, this has persisted. There is a gap between what should be embedded in risk management and what has been implemented. Since many businesses have suffered as a result, it is important to ascertain the scope and factors affecting RMI in businesses. Data were collected using a mixed-method approach with a sample size of 158 people, including questionnaires for quantitative data and interviews for qualitative data. Data were analysed using Megastat, and all tests of hypotheses at 4 degrees of freedom (df) produced an average P-value of $1.57e^{-0.7}$ (P 0.05), indicating that the observed results were not the product of chance alone. The average Phi coefficient and Cramer's V statistic were 0.486 and 0.343, respectively, indicating a moderate to substantial relationship between the variables. The findings revealed that RMI in Zambian FIs ranges from basic to mature but not yet advanced, that RMI is high in banks and rather basic in other FIs, and that NFIs lag behind in RMI. Twelve factors were discovered to impact risk management, including resources, firm size, industry type, managers' motives and attitudes, environmental risks, regulators, internal-external fit, risk frameworks, and risk tools. Organisations, especially those without a formal risk framework, spend money on risk management. The findings have consequences for regulators, researchers, and decision-makers. Business organisations, including FIs and NFIs, are recommended to enhance RMI in order to establish a solid RMI system and allocate resources. Regulators are advised to prioritise RMI among important compliance concerns. More study is needed to determine how helpful each factor is at reducing risk.

Declaration

I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where states otherwise by reference or acknowledgement, the work presented is entirely my own

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Acknowledgements

This dissertation work realised its success because of the unmatched help from the following individuals and institutions which are owed recognition;

My research supervisor, Dr Olajide Solomon Fadun, held on to meaningful and prompt guidance throughout all four tasking stages of the dissertation. Indeed, credit goes to him for his wonderful inspiration, technical and moral guidance, and selfless editing of the entire process of research work.

The University of South Wales and Unicaf for the wonderful platform and support provided for the programme and significant funding through a scholarship that enabled me to complete the Doctoral Programme.

I appreciate the research participants who responded favourably to the request of completing the research instruments during the data collection process. This study took place during the second and third waves of the COVID 19 epidemic, when limitations were severe and at their height. The respondents braved the cyber security concerns and responded to the online questionnaire and those who opted to be interviewed on phone due to social distance concerns had sacrificed their time. Without such a positive response, the whole process could have collapsed due to suffocation from apathy.

My wife, Jane K. Silwimba, was very comforting and understanding during the stressful times of the research process. The tolerance for late nights and limited association when I was in isolation working on the research work is worth noting and appreciated.

Table of Contents

Abstract	iii
Acknowledgements	vi
Table of Contents	vii
List of Tables.....	xii
List of Figures	xiii
CHAPTER ONE	1
INTRODUCTION AND BACKGROUND TO THE STUDY	1
1.1 Introduction	1
1.2 Background to the Study	2
1.3 Statement of the Problem	7
1.3.1 Problem perspective.....	9
1.3.2 Potential negative consequences if the problem is not addressed	10
1.3.3 Supporting needs for exploring the problem of the study	10
1.4 Purpose of Study.....	11
1.4.1 Basis for Research Purpose of Study Case in Zambia.....	12
1.5 Research Aims and Objectives	14
1.6 Nature of the Research Study	15
1.7 Significance of the Study.....	15
1.7.1 The Importance of the Study to a Professional Audience	16
1.7.2 Significance of Study to Business Audience	17
1.7.3 Significance of the study to an academic audience	17
1.7.4 Significance of Study to Organisation Stakeholders – Regulators	18
1.8 Research Questions	19

1.9 Research Hypotheses	20
CHAPTER 2: LITERATURE REVIEW	22
2.1 Introduction	22
2.2 Conceptual Framework	22
2.2.1 Framework of Variables on Risk Management Integration	23
2.2.2 Conceptualisation of the Framework.....	24
2.2.3 Meaning of risk.....	35
2.2.4 Components of Risk	37
2.2.5 Nature of Organisational Risks.....	38
2.2.6 Business Organisations – ownership, size, and industry types.....	39
2.2.7 Nature of Business Organisations in Developing Countries	44
2.2.8 Integration of Risk Management in an Organisation.....	45
2.3 Theoretical Framework	46
2.3.1 The Agency and the Information Problem Theory	46
2.3.2 The Contingency Theory	48
2.4 Empirical Framework.....	52
2.4.1 Extent of risk management integration in Business Organisations	52
2.4.2 Risk management integration in developed countries	55
2.4.3 Risk management integration in developing countries.....	59
2.4.4 Risk management integration across various firms and industries.....	65
2.4.5 Factors influencing the integration of risk management in developing countries.....	70
2.4.6 Risk Management in Zambia from 1988 – 2022 - Development and Status.....	76
2.5 Knowledge gap	82
2.5.1 Integration of Risk management in business Organisations Knowledge gap.....	83

2.5.2 Comparison of risk integration between developed and developing countries	85
2.5.3 Extent of risk management integration across industries and firms	86
2.5.4 Extent of Risk management integration in Zambia	89
2.5.5 Factors influencing the integration of risk management in developing countries	90
2.6 Summary of the Chapter	98
CHAPTER 3: RESEARCH METHODS	104
3.1 Chapter Introduction	104
3.2 Research Approach and Design	106
3.3 Population and Sample of the Research Study	113
3.4 Materials and Instrumentation of Research Tools	121
3.5 Operational Definition of Variables	124
3.5.1 Review of Research Questions and Hypotheses	125
3.5.2 Operationalisation of variables	127
3.6: Study Procedures and Ethical Assurances	130
3.7: Data Collection and Analysis	135
CHAPTER 4: DISCUSSION OF RESEARCH FINDINGS	138
4.1 Introduction to the Section	139
4.2 Trustworthiness of Data	141
4.2.1 Credibility	141
4.2.2 Transferability	142
4.2.3 Dependability	143
4.2.4 Confirmability	143
4.3 Validity and Reliability of data	144
4.3.1 The Use of Existing Or Prior Tested Instrument	145

4.3.2 Validity In Quantitative Research	146
4.3.3 Reliability in quantitative research	147
4.3.4 Validity and Reliability in Qualitative Research	148
4.4 Results of Findings in Tabular and Graphical illustrations	148
4.4.1 Demographic Information overview	148
4.4.2 Organisation Background	156
4.4.3 Results Presentation on Research Objectives, Questions and Hypotheses.....	164
4.4.4 Findings on Research Objective, Question and Hypothesis 1	165
4.4.5 Research Objective, Question and Hypothesis 2	171
4.4.6 Research Objective, Question and Hypothesis 3	186
4.4.7 Research Objective and Question 4	190
4.4.8 Research Objective and Question 5	202
4.5 Evaluation of the findings and connection to literature.....	203
4.5.1 Demographic Information Explained Pattern	204
4.5.2 Organisation Background	206
4.5.3 Evaluation of Findings on Research Objective, Question and Hypothesis 1	209
4.5.4 Research Objective, Question and Hypothesis 2	213
4.5.5 Research Objective, Question and Hypothesis 3	229
4.5.6 Research Objective and Question 4	232
4.5.7 Research Objective and Question 5	242
4.6 Summary of the Section	243
CHAPTER 5: IMPLICATIONS, RECOMMENDATIONS AND CONCLUSION	252
5.1 Introduction	252

5.2 Implications	253
5.2.1 Research Question/Objective/Hypothesis One	253
5.2.2 Research Question/Objective/Hypothesis Two	255
5.2.3 Research Question/Objective/Hypothesis Three	258
5.2.4 Research Question/Objective/Hypothesis Four	260
5.2.5 Research Interrogation/Objective/Hypothesis Five	262
5.3 Recommendations for Application	264
5.4 Recommendations for Future Research	271
5.5 Conclusions	277
REFERENCES	288
APPENDICES	313
Appendix A: Financial Sector Population – Bank And Non Bank Institutions	313
Appendix B: Data Collection Tools - Questionnaire And Interview Questions	328
Appendix C: Final UREC Approval Decision	341
Appendix D: Informed Consent form	342

List of Tables

Table 3.1: List of Business Organisations in Zambia (2021)	103
Table 3.2 Number of Companies by Town in Zambia.....	113
Table 4.1 Budgeted vs Adhoc Expenditure on Risk Management.....	145
Table 4.2 Resource Allocation towards Risk Management.....	148
Table 4.3 Hypothesis 2 Test - Significance of Industry on RMI.....	162
Table 4.4 Chi-square test for Industry and RM Tools.....	166
Table 4.5 RMI in Planning and Budgeting.....	167
Table 4.6 Effect of Risk Analysis Outcomes on Setting Objectives.....	168
Table 4.6 Effect of Risk Analysis Outcomes on Setting Objectives.....	169
Table 4.7 RMI in Decision Making.....	170
Table 4.8 Board Meeting Risk Management Discussions.....	171
Table 4.9 Documentation of Risk Analysis Outcomes.....	172
Table 4.10 RMI on Core Operation Processes.....	173
Table 4.11 Risk Management Integration in Back Office Processes.....	174
Table 4.12 Risk Disclosure and Management Reports.....	175
Table 4.13 Risk and Internal Audit Interaction.....	176
Table 4.14 Adequacy of RMI.....	177
Table 4.15 Organisation Size and RMI in Core Processes.....	178
Table 4.16 Industry and Risk Management Department.....	179
Table 4.17 Risk management Tools.....	205
Table 4.18 Summary of results findings and evaluation.....	218
Table 5.1 Summary of Recommendations on RMI in Developing Countries.....	244
Table 5.2. The twelve factors of RMI in Zambia and Developing Countries.....	254
Table 5.3 The top ten parameters measuring the overall extent of RMI across industries.....	258
Table 5.4 Summary of Findings on Research Questions.....	261

List of Figures

Figure 1.1: Risk Compliance global wise – Basel II accord.....	5
Figure 2.1 Conceptual Framework Explaining Variations in Risk Integration in Zambia.....	22
Figure 2.2: Minimum Contingency Variables for ERM	45
Figure 2.3. The interrelationship between contingency factors and risk management.....	46
Figure 3.1 Flexibility of design options for mixed-method purposes.....	98
Figure 4.1 Gender Distribution.....	136
Figure 4.2 Age Distribution.....	136
Figure 4.3 Current Position in Organisation.....	137
Figure 4.4 Department working for in the Organisation.....	137
Figure 4.5 Length of Service.....	138
Figure 4.6 Distribution of Industry/Sector.....	139
Figure 4.7 Organisation Size.....	139
Figure 4.8 Organisations Regulated.....	140
Figure 4.9 Presence of Risk Management Programme in Organisation.....	141
Figure 4.10 Risk Department in the Organisation.....	141
Figure 4.11 Resource Allocation towards Risk Management.....	142
Figure 4.12 Budgeted Expenditure on Risk Management.....	144
Figure 4.13 Priority on Budget.....	146
Figure 4.14 Effect of Industry Type on RMI.....	150
Figure 4.15 Effect of Manager's Motives on RMI.....	151
Figure 4.16 Effect of Manager's Attitude on RMI.....	152
Figure 4.17 Effect of Enlightened Board on RMI.....	153
Figure 4.18 Internal - External Effect on RMI.....	154
Figure 4.19 Effect of Firm Size on RMI.....	155
Figure 4.20 Risk Structure Effect on RMI.....	156
Figure 4.21 Risk Management Framework on RMI.....	157
Figure 4.22 Risk Management Regulations.....	158

Figure 4.23 Effect of Risk management Tool on RMI.....	159
Figure 4.24 Effect of Resources on RMI.....	160
Figure 4.25 Effect of Threats and Changes on RMI.....	161
Figure 4.26 Risk Management Frameworks.....	163
Figure 4.27 Risk Management Tools Used.....	164

CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

From its basic form, the risk concept is one of the most fascinating areas of application as well as in the field of theoretical social sciences. The nature of risk makes it unique from other scientific notions. Some salient characteristics known about risk are that while it is widely accepted to influence both an individual and organisation, the understanding of risk is neither uniform nor standard and experts who claim to know it better are divided. Some have understood risk from the downside, loss or danger point of view, while others from the upside, high return or opportunity of outcomes (Hillson, 2017; Hillson & Murray-Webster, 2017; Banaitiene, 2012). When it comes to the adoption of risk in organisations, it has been seen to be adopted at different levels determined by many factors (Fadun, 2013a), its application is not uniform as some are inclined to a qualitative approach while others use a quantitative approach (Fell, Ho, Lacasse & Leroi, 2005), and the definition is not universal (Abuzarqa, 2019).

The origin of risk is known differently by different scholars. For example, Covello and Mumpower (1985) explained that the conceptual meaning of risk is derived from the word *Rescas* (Latin) which carries the meaning of any great discrepancy between the anticipated and the actual outcome that was observed. On the other hand, Grima and Bezzina (2018) reported that the word “risk” comes from another descriptive word called “*rizq*” derived from the antique Arabic language which was widely used in what is now Maltese dialect in the recent times. This word was interpreted for any affluence granted by God (or Allah in other religions) to anyone in the society. This notion was prevalent in early civilisations where events of fortune or misfortune were attributed to the acts of the gods. It was, therefore, pointless for people to take measures to prevent or intervene in an event, an absence of risk management. It appears this same understanding is still being held by most organisations today. In the Renaissance period, the same word evolved its meaning to imply any uncertain loss or danger (Doff, 2015). From this background, it can be seen

why risk has been embedded differently by different organisations, and this was the source of the interest to measure how varied this risk integration has been in various organisations in developing countries.

Reality shows that risk exposure is a thing of concern to organisations both financial and non-financial entities and has sparked up conventional measures. Even decades ago, it was observed that the companies were exposed to risks every day in their normal business life (Pearson & Mitroff, 1993). These risks pose both threats and opportunities which may impact their resources, projects and profitability (Banaitiene, 2012). Hence, coming to our day, the risk management concept is quickly gaining increasing importance with the increase in business sophistication. So much effort has been applied to matters involving risk management trying to get as many research findings to increase value as possible. For example, Musyoki and Komo (2017) who evaluated the various factors that affect both the general risk along with the desired levels of risk management at the enterprise scope in the Kenyan industry of financial services, reported that some of the broader themes that have emerged from research on risk management have been discussed from various perspectives. He noted that most of these have to do with the determinants of implementation of ERM, effects of the implementation of ERM and lastly ERM from an organisational structure perspective. They noted that more inquiry has been made through research on the probable impacts of the enterprise risk management implementation, and a number of them have gone further to study from various perspectives such as the performance of the firm, firm value, the metric of risk of default and the mandatory requirements on disclosures.

1.2 Background to the Study

The response was given to the gap that is existing between the needed levels of risk management and the actual position for most organisations and a designed framework to execute many risk management frameworks and standards were set up. This was believed to be contributing to the enterprise risk management that would be effective and focus on the risk conventional standards as well as help organisations manage risk. One of these is the Committee of Sponsoring Organisation (COSO) which established standard policies, rules and risk regulations to help

organisations achieve their established objectives (COSO, 2004). In 2004, the committee made available the Enterprise Risk Management (ERM) based framework that took the coined concepts terms as Integrated Risk Framework. The framework had many provisional guidelines covering various risk management components and housed many both the major principles as well as concepts that afforded an ERM language that was common to all practitioners. In addition, the published frameworks provided the vivid guidance and direction for general enterprise risk management (Al-Khadash, Jireis & Embassy-Jordan, 2017). Apart from COSO, there are other organisations involved in spearheading the uniform application of principles as well as risk guidelines so that a common benchmark is adhered to in the course of implementation ERM processes. One of these is called the International Standards Organisation of code 31000 which is usually cited as ISO 31000 of 2009 (Njagi & Njuguna, 2017).

There are other sets of risk management guidelines used by many risk experts that aim at pronouncing the tenets of the risk professional bodies, some of these were identified by Hillson and Murray-Webster (2017) and the most notables ones on the list are;

1. The ones dealing with insurance risk such as the AIRMIC to cover for the risk issues to do with Industry and Commerce Insurance for the Risk Managers Association
2. EIRM which stands for European Institute of Risk Management
3. Similar to it is the FERMA an acronym for Federation of European Risk Management Associations
4. The well affiliated worldwide subscription called GARP standing for Global Association of Risk Professionals
5. The IRM which is the general consideration under the Institute of Risk Management
6. The one with a social approach under the Public Risk Management Association (PRIMA)
7. Risk Management Association (RMA),
8. Society for Risk Analysis (SRA).

Some of the other professional disciplines have a narrowed approach to spearhead the specific interests of some risk professions suiting their context and some of them are;

1. Project Management Institute (PMI) – serve the interests of risk and project management
2. UK Association for Project Management (APM), - project and risk management
3. International Association of Contract and Commercial Managers (IACCM) - for contracts
4. International Council on Systems Engineering (INCOSE) – The Civil engineering risk
5. Insurance Information Institute (III) – Risk Insurance practice outside the United States
6. Insurance Institute of America (IIA) – risk management in insurance in America
7. Risk Management Institution of Australasia (RMIA)
8. Professional Risk Managers' International Association (PRMIA).

In Zambia, there is an emerging trend to support the risk management profession and in 2018, several groupings started in which the notable one was the formation of the Institute of Risk Management Zambia (IRMZA). This was formed by individuals from various industries dedicated to institute risk management best practices in many organisations. The Institute had a forward-looking aim of providing various training services as well as capacity building in risk management as well as consultancy services in both risk and other risk related research works. It was observed some fair levels of growth in the importance of risk management which calls for demand in certain industries and the Institute pledged to secure distinct and value-added services. This would be achieved by helping clients to understand how to quantify and manage risk that would eventually open up business novice opportunities for both growth and competitive edge in different industries (IRMZA, 2019).

The increase in the risk exposure in companies is expected to be followed by a zealous risk management integration in all companies. However, little compliance has been observed to risk regulations to the extent they deserve. The latest findings as well as those established some long time ago revealed that for a long time now there has been a slow improvement in the integration of risk in most organisations, even for those who have made efforts, it was revealed that risk

management was not fully integrated into most of their business organisations. The following sections briefly discuss some recent findings on the integration of risk management.

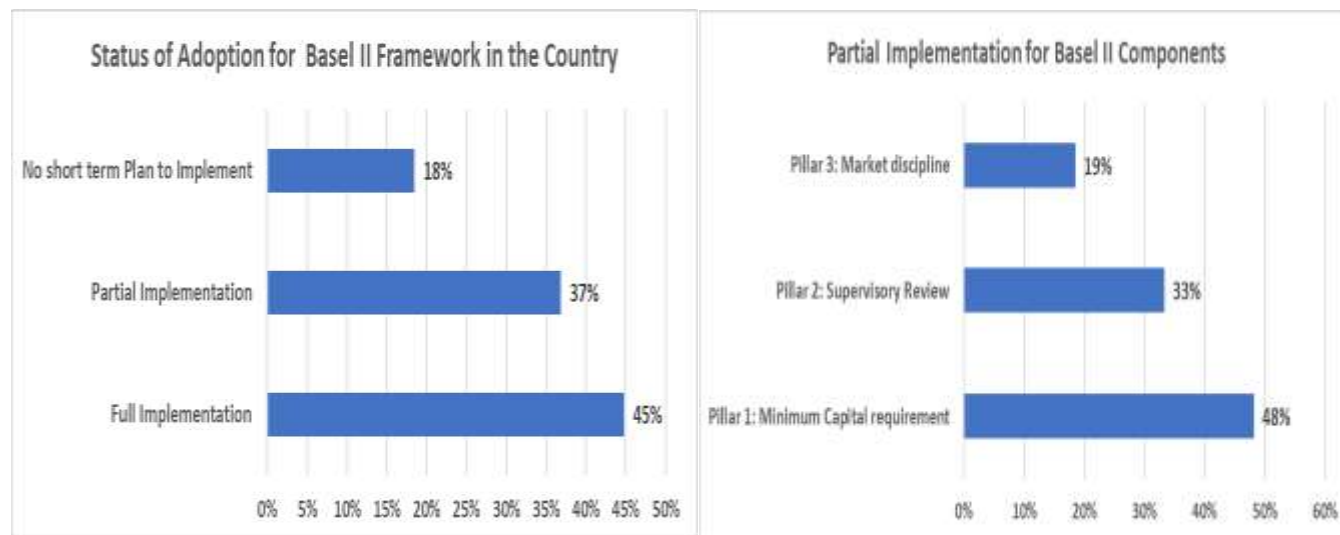
This was further confirmed by a survey which was jointly conducted by two organisations; the Certified Public Accountants of the American Institute abbreviated AICPA and the Risk Management Initiative under the North Carolina State University in August 2019 (Beasley, Branson & Hancock, 2019). The findings were part of the report on the updated status of oversight on risk that published the overview of the prevailing enterprise risk management best practices. In this survey, chief financial officers and other senior executives were engaged to find out the role risk management has in their organisation. It was found that close to three quarters (or 70%) of different firm sizes and types admitted that there was a significant change in the scope and extent of the risks they face as compared to the previous five years. The proportion of those who would comfortably rate their risk management practice to be both mature and up to standard was only a quarter, that is only 25% and of course the rest which is the majority did not have any close approach to risk management best practice (Beasley et al., 2019). The survey further showed that there is a significant deviation between the scope and scope of the risk exposures firms faced and the actual reaction to them in terms of mitigating the risk challenges. There was no shock in such establishment from the evidence that only a quarter had a self-rating of robust risk management in their organisation as opposed to the majority who felt that they are far from fully or effectively integrating risk management into their strategic planning.

Other findings were that only 28% of organisations have complete ERM processes in place. More than half (51%), of organisations, communicated the status of the material risks on an irregular pattern and usually on either impulse or merely ad hoc basis when issues have been asked for in meetings. One third (30 % of the respondents from the executives class) reported that their meetings are dominated by discussions of key risk issues in the meetings. The rest of the respondents making up more than two-thirds (62%) of organisations said that there is a minimal or complete absence of risk management activities that can be rated as being an explicit form up component of most decisions determined in management. It further concluded that risk

management is not seen to advance or contribute that much to their strategic objectives and therefore it was not easy to associate the value of risk management. This makes ERM to easily slip down an organisation's list of priorities (Beasley, Branson & Hancock, 2017). For many decades, this trend has been noticed by many interested experts, as more than 20 years before the time of reporting this paper, Pastor (1998) noted that many metrics used in measuring the traditional efficiency do not include the bank risk, even when the score in risk management is good or accounted for, they omit it.

Starting with analysis within a period of five years (from 2022 going back on time), the status of risk management is rated inadequate. In August 2018, a survey report on risk compliance was developed and published by the Basel Subgroup of the Global Standards Proportionality Working Group (GSPWG). This report was shared to all member institutions of Alliance for Financial Inclusion (AFI). The survey involved members in 38 jurisdictions, including countries from Africa (Zambia inclusive); America, the Caribbean; many parts of Asia and (AFI, 2018). The findings were that about 45% have implemented the Basel II framework as shown in Figure 1.1, 37% had partially implemented the framework and 18% have not adopted the framework at all and there were no such plans in the short term. This translates to a 55% global non-compliance. Of the respondents that have partially implemented the Basel II framework, almost half (48%) implemented only the pillar 1 minimum capital requirements, while 33% implemented the pillar 2 supervisory review requirement. Only 19% have adopted the pillar 3 market discipline requirements (AFI, 2018).

Figure 1.1: Risk Compliance global wise – Basel II accord.



Source: Adapted from AFI Survey on Basel Implementation (2018)

The above scenarios are, but a few of the many that give a picture of how varied the world is divided in terms of risk management embedment in both sovereign countries and individual business organisations. Zambia is among the countries sampled by AFI and it also has a diverse organisations and entities. But the extent of integrated risk management was found to be not uniform in Zambia and this has to be established. In a similar pattern, other countries have been established spot on especially in developing countries. Fadun (2013b) observed that although there are many ERM benefits, there were only a small number of firms that implemented enterprise risk management in Nigeria. Hence, there is a serious gap which is separating the ideal situation from the way things are obtained in the organisations. The primary aim here was to establish two major issues, one is to determine the extent of risk management integration (RMI) and the second is to establish the major causes that have led to such a pattern.

1.3 Statement of the Problem

Currently, there is a problem that has to be addressed in this study and it was that while risk exposures are increasing, there is not an equal or corresponding response towards risk management by many organisations. Ideally, the increase in the risk exposures and sophistication has to be

followed by the same degree of increase in the management of these risks. The principal truth in this phenomenon has been observed in the way risk has evolved in importance globally and has become a critical aspect that attracts earnest efforts for the field and call for the need to institutionalise risk management procedures (Al-Khadash, Jireis & Embassy-Jordan, 2017). There have been international regulations coming up with strategic risk framework standards for benchmarking (Njagi & Njuguna, 2017) and there are professional bodies to support organisations with capacity building in risk (Hillson & Murray-Webster, 2017). With all these developments, the expected or ideal situation is to have a zealous and full adoption of all these risk management guidelines, procedures and frameworks across all firm types, sizes and industries under all factors and cultures. About a decade and a half ago, Hillson (2006) made a similar observation that since risk is recognised in every field of human endeavour, a matching drive is expected to address risk as far as possible. But contrary to this, there is a difference in a real situation which is showing that businesses do not fully embed risk management in their business activities and strategy (Beasley et al., 2019; AFI, 2018; Fadun, 2013a). Baharuddin and Yusof (2018) observed that even if there is so much attention given to the various advantages of practicing risk management and with so much emphasis on the continuous basis, there is a visible lack of a robust risk management or at least not put into practice to the levels they deserve. This is where the gap for the research study was arising from and called for curiosity to establish the factors causing this pattern and what extent this has gone.

Other researchers have gone further to find out factors affecting this varied extent pattern of risk adoption in different organisations and much has been accomplished. For example, Fadun (2013a) established that the levels to which the application of enterprise risk management (ERM) is done is actually influenced by the scope and the size of the firm as well as its type, managerial support, and willingness to adopt good practices, among others. Hence, the why question seems to have been thoroughly handled about risk management, but then how far the question is yet to be established. It is also vital to establish the extent to which such variables can be used to measure what have pushed organisations to include enterprise risk management. Smith (2005) argued that

there is a limit to how much effort you should invest in managing the risk in a project. He further argued that a business should recognise that you cannot do a perfect job, and anything approaching perfection would be beyond a reasonable cost. However, he never prescribed how far an organisation should go in ideal embedding risk. Hence, this research endeavoured to bridge up the gap and to establish to what extent business organisations have integrated risk management in their businesses under the prevailing factors such as those identified by Fadun (2013a).

1.3.1 Problem perspective

The research problem has implications that cut across all levels starting with individuals, organisations and industry-wise. The pattern of risk management across various levels is a critical concern, and this research focused on the organisation type and industry perspective. As a control, the same issue was considered in other developed nations such as Russia where investigation on the levels of the execution of risk administration hones in a few Russian mechanical organisations was inspected. Kuznetsova (2020) examined roughly 100 diverse undertakings from different businesses in arrange to decide the essential characteristics or components connected with the profundity of endeavor chance administration (ERM) execution in Russian industry organisations. A few of the striking measuring parameters utilised within the evaluation of risk administration were the major targets that must be met as a result of the usage of risk administration frameworks in companies from different segments, the major characteristics of the structures formulated in risk management, the size of the costs included in keeping up chance administration forms, hazard evaluation strategies, and the exercises of mechanical organisations that coordinated hazard administration were a few of the key measuring parameters utilised in chance administration appraisal. This established a mechanism for evaluating risk management maturity levels in five categories: absent, managed, quantitatively managed, optimised, and advanced. The risk management system's workflow maturity level was used to identify groupings of Russian industrial businesses in various industries using cluster analysis. Risk management systems were among the most sophisticated in the mining, mechanical engineering, and consumer goods manufacturing industries. The woodwork, paper and pulp, skincare, and pharmaceutical sectors, as well as those

involved in the materials used for building or construction companies (not construction companies themselves who use up these materials), have the lowest levels of risk management systems (Kuznetsova, 2020). The findings create the framework for identifying the underlying causes and major impediments to implementing a complete risk management system in industrial organisations. This gap analysis has now been extended to developing countries' financial and non-financial industries. The next part discusses the negative repercussions of not conducting this type of study in developing countries.

1.3.2 Potential negative consequences if the problem is not addressed

The established concern is that if business ventures do not become conscious of the best level or risk management that matches their needs as well as the factors influencing the risk management implementation, they lose out on business strategic benefits. As different Russian industrial businesses have proved, the major results of risk management practice in any organisation include fulfilling strategic goals, expanding company value, enhancing efficiency and performance, meeting regulatory requirements, and increasing company value, among others (Kuznetsova, 2020; оланова, 2020). This implies that if organisations are not helped to see the trending factors affecting the extent of risk management, then they significantly miss out on the cited benefits and the consequences are equally significant.

1.3.3 Supporting needs for exploring the problem of the study

When this consideration is narrowed down to Zambia and other developing countries, it becomes evident how important it is to establish the need to understand the distribution and amount to which risk management has been adopted in these countries. On the part of financial institutions, a response to risk management in Zambia and other countries especially by banks has indicated how deep or shallow they have been. Between 1995 and 2001, nine (9) commercial banks in Zambia failed in a six-year period. Insolvency forced the failure of Intermarket Banking Corporation (IBC) in 2016. Atlas Mara Zambia was established in the same year when Banc ABC Zambia, an affiliate of Atlas Mara, purchased Finance Bank (Martinez 2006; Handema &

Haabazoka, 2019). Pan African Bank and the unit of ZamPost Finance were liquidated, and several other financial institutions which fell victim to poor risk management and collapsed are shown in this report appendix. Several other banks have undergone serious transformations such as merging. And of much to note, the growth of Zambian commercial banks has been slow and for over 50 years, the country has not exceeded a total of twenty commercial banks at any given time. Other developing countries, such as Kenya, had a similar trajectory in the late 1990s, when 26 insolvent banks were liquidated at the same time. Other banks in Kenya have undergone various surgical operations such as restructuring, rebranding, acquiring, and complete reshaping, with liquidity and fraud being a main source of failure for those banks (Onwonga, Achoki & Omboi, 2017). These statistics give supporting evidence of undermined risk measures and call for a need to seriously research the degree of risk administration and practices in these developing countries.

The challenge associated with the inadequate management of risk and other exposures is not only found in developing countries, but the report from developed countries shows that a lot has to be done for some companies in developed countries as well. For example, Zoghi (2017) assessed risk management practices across numerous industries in Turkey, one of the developed nations, and his study indicated that Turkish SMEs handle risks at a very basic level. He stated that a big majority of Turkish SMEs do not have any standards for implementing an RM system in their organisation. Furthermore, SMEs from many industrial sectors said that they identify and analyse risks that jeopardise their organisation on a regular basis. According to his research, in the capital goods sector, 22.0 % stated that none of the risk categories were systematically monitored in their organisation, and 14.6 % apply none of the RM approaches in their business. However, IT was the only sector that was found to be utilising most of the types of RM techniques.

1.4 Purpose of Study

The by and large objective of this research undertaking was to establish the degree to which business organisations are making use of set risk regulations, policies and frameworks in their strategies and structure to meet their objectives as well as the factors or causes behind this pattern.

The scope of the purpose for the study was wider probing on many issues that might be responsible for this pattern as well as a comparison between industry and firm types. This is arising from the fact that it is well known to everyone as regards the importance of managing risk. In addition, organisations have been provided with various risk management support systems and frameworks. This increased emphasis on the importance of managing risk in all enterprises by various associations through international risk regulations and frameworks is expected to be replied to by the widespread implementation of risk models in all organisations and different types and sizes.

Hence this study had the purpose of ensuring that a level of RMI is known and that significant parameters responsible for this level are established. This research purpose would also show the extent to which RMI has been embraced in Zambia and then induced to other developing countries. Arising from the problem, the study considered the prevailing trends in the Zambian leading commercial banks in which preliminary evidence showed that less than optimum RMI has been adopted in these banks. The purpose of the study dwelt on the fact that as much as many factors are determining the extent of RMIs, there is an eminent need to know how far and why these institutions have responded to their established levels of RMI integrating.

1.4.1 Basis for Research Purpose of Study Case in Zambia

To have a firm basis for this research purpose, which was arising from the research problem, scrutiny on the uneven response to RMI was done by first picking one commercial bank which was used as a litmus paper check. Zambia has 18 commercial banks and before involving many banks, this study had to consider the results of one commercial bank which was studied by other researchers. The findings on the case of one of the biggest commercial banks from the desktop approach gave a substantial reason to test other banks and organisations for consistency. The results would then be induced to a wider scope of developing countries. This scrutiny was done on the research findings that involved the Zambia National Commercial Bank conducted by Musonda (2020). He concentrated his study on a critical examination of the internal risk management strategies of Zambian commercial banks. His work were focused on analysing the internal risk

management methods of commercial banks in Zambia and their influence on banking performance, using the Zambia National Commercial Bank as an example (ZANACO). He highlighted that despite significant progress in risk management, many managers had not yet recognised the importance of investing in a modern risk management system. The managers and their companies might still appreciate the benefit of the risk management system, but they are reluctant to form it. Hence he pointed out that many commercial banks in Zambia such as ZANACO do not have proper risk management systems, and this was supported by other researchers such as Mwiya (2005). He further observed that this has led to many Zambian commercial banks not being able to have sound credit risk profiles and failing to recover loans they issue out to clients in good time. He further highlighted that; commercial banks' lending has played a key role in fuelling industrialisation in any economy by encouraging the mobilisation of capital that oils the rolls of economic production (Harvey, 1991). It is agreed that well-functioning banks stimulate technological innovations, they identify and finance entrepreneurs who are evaluated to have a better chance of successfully implementing innovative products and manufacturing processes. However, the credit risk or default risk, unfortunately, creates an adverse effect on the safe and viable operation of commercial banks (Gilbert, 1993). This means that they need a robust risk management system, but they do not prioritise it.

There were a few similarities in the methodology adopted by Musonda (2020) with that which was used in this case study, the only difference was the scope except that it was narrower in scope. The study analysed the internal risk management practices of one commercial bank in Zambia from the credit risk management perspective and other few risk practices. Furthermore, the research adopted the survey design which was supported by Bryman and Bell (2011). The methodology employed a blended strategy of cross-sectional design with the goal of obtaining both quantitative and qualitative data from the target participant in a single visit. In this respect, the researcher conducted a field survey utilising questionnaires and personal interviews, during which data was gathered, compiled, and analysed in order to evaluate the hypotheses.. The sample

size of 10% of the target population (or thirty employees) was taken from various branches of the bank as well as some risk managers from the head office of the same bank.

The findings highlighted in his research were among other bases used to establish the purpose of study for the extent of risk management integration across financial institutions as well as non-financial institutions rather than one commercial bank. The overall purpose was to see what pattern is obtaining in other financial institutions and why. The contexts in which the purpose was devised for such research are similar to this study as well as those from other countries, but the scope was widened to include other banks and the variety of companies outside the financial institutions. The purposes also covered more than the credit risk and went to highlight other factors which were responsible for the pattern and the variation across industries and firm size. This resulted in five distinct research aims and questions, which are addressed further below.

1.5 Research Aims and Objectives

The general aims and objectives were to explore the degree to which risk management has been integrated into business organisations in Zambia and other developing countries while the specific research objectives were:

1. To ascertain if there is a proportion of budget allocated by business organisations in Zambia and other developing countries towards the management of risks.
2. To establish which factors strongly influence the integration of risk management into business organisations in Zambia and other developing countries
3. To determine whether business organisations in Zambia and other developing countries have internal risk frameworks in place that comply with international risk guidelines.
4. To determine the extent of risk management integration across different types of firms and industries in Zambia and other developing countries.
5. To establish if there are formalised risk structures integrated into the business organisations in Zambia and other developing countries.

1.6 Nature of the Research Study

The investigation was conducted in order to attain the specified goals in a case study approach for Zambia which is one of the developing countries using the mixed method. The sampling units were drawn from different industries covering financial and non-financial sector as well as various firm types, size and nature. The respondents chosen represented their organisations when completing survey questionnaires and those during the question and answer session. The selected respondents were senior managers or members of the EXCO for the corporate companies or absolute owners in the case of the SMEs. To ensure that a good balance is in place and all areas of interest are represented, a purposive sampling method was used that captured those respondents of suitable characteristics to deliver the research purpose. The study used a mixed research approach with the benefit of triangulation effect to accomplish the research objectives and provide solutions to the research questions. The mixed-method affords triangulation which overcomes the challenges that come with a single research method as no single method can afford complete validation assurance. Triangulation, according to Torrance (2012), has its roots in attempts to validate research findings by creating and comparing several types of data, as well as the opinions of different respondents, on the issue under examination. To collect both quantitative and qualitative data, questionnaires and interviews were used in a case study for Zambia. A variety of organisations were involved and across many industries to establish the extent of risk management integration in the institutions.

1.7 Significance of the Study

When it comes to the study of other factors that improve the welfare of individuals, organisations and nations as a whole, a lot of work has been done. For instance, much work has been done on the role of business organisations and entrepreneurship to community and national development (Ayandibu & Houghton, 2017; Liu, Cheng, & Cheung, 2017). Equally, enough work has been done on the challenges these businesses face to meet objectives as well as growth especially in developing countries (Boone, Kurtz, Khan & Canzer, 2019; Alotaibi & Liu, 2017).

But the issue of risk measures has little been associated with the emerging market challenges for all types of firms. For example, Lima and Verbano (2019) discovered that, despite its strategic relevance, project risk management is predominantly employed by large firms, with little empirical data addressing entrepreneurs of small and moderate in size(SMEs). The study results findings on the amount and causes affecting the degree of RMI have substantial consequences for many persons of various categories, and these topics are covered in the subheadings below.

1.7.1 The Importance of the Study to a Professional Audience

The outcomes of the study are proven to be valuable to all risk management professionals and other professional stakeholders in understanding the levels of risk management practice in financial and non-financial institutions, as well as other organisations and sectors and company sizes. According to Woods, Linsley, and Maffei (2016), the relevance of risk management to the accounting profession is directly acknowledged by the integration of risk problems in the examination curriculum of professional accounting organisations such as the Chartered Institute of Management Accountants (CIMA). These professionals will need to reconsider the curriculum and include the various patterns needed for each type of industry according to the RMI levels applicable to them. In addition, several new businesses have sprouted alongside these advances, focusing on risk advice services provided by both commercial and specialist consulting organisations. Following the known outcomes in underdeveloped countries, these, too, require modification. Risk management was listed as a top priority in the Financial Reporting Council's (FRC) 2014 changes to the Corporate Governance Code, with the FRC emphasising the board's duty for ensuring a strong risk management plan is in place (FRC, 2014). Such gesture is likely to be embraced and more refinements made on various risk associations and regulations. The risk management professional bodies and regulators can use these research findings to view the presence and nature of risk structures and internal risk frameworks in various organisations.

1.7.2 Significance of Study to Business Audience

The research findings covered the areas of resource allocation towards risk management, and this has a significant implication aimed at helping decision-makers and investors of organisations to see the different proportions of budgets allocated by business organisations in developing countries towards the management of risks. This helps all interested parties appreciate the need to dedicate resources to managing risk. While it is true that not all businesses can integrate risk at the same degree, the study findings assist to identify which elements have a substantial impact on the extent of risk integration in business organisations in developing nations. This enlightens the reason why different organisations and industries have different risk adoption levels. Hence it is easier to know which types of firms and which industries take risk management for granted and what necessary help should be rendered to such ones. The research findings have added value and knowledge on the culture of risk in various organisations.

Risk management is applicable even in organisations that are non-profit based. Non-profit business leaders confront obstacles in sustaining and developing organisational sustainability, according to Wyma (2019). As a result, in order to preserve and increase organisational sustainability, non-profit business leaders attempt to reduce enterprise risk. This study, like Wyma (2019), has commercial implications in that corporate leaders can use the data to gain a better knowledge of prospective strategies for enhancing enterprise risk management. Non-profit business executives can benefit from identifying effective enterprise risk management techniques to assist them maintain and increase their organisation's sustainability. He further noted that the implications have a potential for constructive social transformation which include the ability to contribute to non-profit leaders' models of effective enterprise risk management strategies and processes to achieve, maintain, or improve organisation sustainability, thereby helping to ensure leaders' ability to serve and improve their communities (Wyma, 2019).

1.7.3 Significance of the study to an academic audience

Knowing the extent and causes of risk management integration has given further room to research on how organisations can be managed and supported to intensify risk integration in their

strategy. The results have to open the way for further research covering the numerous factors established to be key determinants in the RMI of the organisation. The research makes a significant contribution to the academic knowledge base and has the capacity to change and passionately attempt to transfer the twelve criteria developed in the conceptual framework into theory. When it comes to risk management in schools, the range of risk management education in schools should be expanded. Usually, the risk management skills are executed by employing institutions themselves with the help of the various risk frameworks and consultants rather than full preparation from the education systems. This has been shown in a number of countries, including Costa Rica, where Arce, González, and Camacho (2021) assessed the risk management teaching process at state bodies. Teaching, coaching, and risk management preparation were investigated in public institutions, including Banco Nacional de Costa Rica (National Bank of Costa Rica), Caja Costarricense del Seguro Social which when translated into English is read as the Costa Rica's Social Security Institution, Banco de Costa Rica translated as Costa Rica's Bank, Ministry of Health, and Banco Popular or as Popular Bank in English. The following courses are taught in these institutions, according to the findings: first aid, fire principles, fire management, damage assessment (DA), and the incident command system (SCI). Professionals from the Hugo Fonseca Clinic reported receiving training in cardio-vascular breathing, stretcher, bandaging, and vertical rescue, all of which are common courses in the medical field. So many of these institutions use simulations, exercises, and signalling to respond once a hazard has occurred. Now, these findings indicate that risk management is taken to be a practical skill only undertaken when needed. The academic professions need to add to their curriculum the distribution of other risk management integration levels associated with the firm type, firm size and other parameters. This study provides a good contribution to the academic audience that acts as a guide to teach and publish material on the extent of risk management.

1.7.4 Significance of Study to Organisation Stakeholders – Regulators

Organisations operating in the open environment are monitored by various groups of interest. Of course, the internal staff and direct customers are some of them, but the most critical stakeholder

in risk management issues is the regulator. There is a huge variation in the levels of regulatory areas of focus largely dependent or influenced by the type of the firm. There are those which are focused on safety, healthy, environment or service delivery to customers. But there is one common area of interest applicable to all types of organisations and this is an increasing relevance of regulatory agencies in risk governance. The need to include risk management regulation is quickly claiming its place in all regulators schedules and they have to be helped by accessing the pattern of distribution of RMI levels in the organisations they regulate. This study and its findings serve that purpose. Many studies have revealed that regulators of risk management face challenges that need to be overcome especially on the scientific approach to risk evaluations and regulations. Su, Huang, and Drakeford (2019), for example, claimed that there is an explanation for how risk regulators deal with their primary duty of providing scientific advice to organisations. Scholars in the discipline have discovered that scientific information and technical skill may serve a variety of purposes in regulatory politics (Rimkut 2015; Schrefler 2010). They attempted to investigate how scientific information is employed in risk evaluations as well as how regulatory agencies promote technical skills. They discovered that proficiency in risk regulation skills is limited owing to restrictions deriving from the conceptualisation of various ways for utilising scientific information and theorisation of explanatory elements that explain for diversity in scientific risk assessments. Hence, these research outcomes proved to be of great significance to the regulators in the manner which gives them the clue of RMI distribution so that they sharpen their expertise as they execute supervision.

1.8 Research Questions

As a result of the investigation objectives, there were the five corresponding research questions. According to Davis (2014), research in design, like research in other areas, begins with a question that represents a desire to know something or an awareness that some situation is unresolved or may benefit from better understanding. There are several philosophical approaches to research, in addition to the distinction between research aiming to advance knowledge in the subject and research focused on practical application. He went on to say that another method to design study

looks for meaning in people's lived experiences in order to comprehend a specific issue. Design research frequently targets "grand issues" where answers are in the public interest. Interdisciplinary cooperation, the function of prototyping, materials testing and production, and the design of service ecologies are all researchable topics. The hunt for new and relevant terrain is not as difficult in design research as it is in the sciences and humanities (Davis, 2014). The research sought to address the research questions stated below, which served as the foundation for the inquiry.

- Q1.** What is the proportion of budget allocated by business organisations in Zambia and other developing countries towards the management of risks?
- Q2.** What factors influence the integration of risk management into business organisations in Zambia and other developing countries?
- Q3.** Do business organisations in Zambia and other developing countries have internal risk frameworks that comply with international risk management standards?
- Q4.** What is the extent of risk management integration across different firm sizes and industry types in Zambia and other developing countries?
- Q5.** Are there formalised risk structures integrated into business organisations in Zambia and other developing countries?

1.9 Research Hypotheses

The research had four hypotheses and theoretically, a hypothesis is a specific conjecture (statement or assertion) about a property of a population of interest. Park (2015) suggested that a hypothesis should be interesting to the audience and deserve testing rather than a frivolous or dull one which is obvious. The hypotheses have followed the standard format where a two-part statement of the same hypothesis is completed by a null and an alternative statement. A null hypothesis (denoted H_0) is described by Park (2015) as a specific baseline statement to be evaluated, and it typically takes the form no effect or no difference. An alternative (H_a or H_1) hypothesis is a rejection of the null hypothesis. Researchers frequently, but not always, anticipate that evidence will support the alternative theory. A hypothesis is either two-tailed (takes both extremes) or one-tailed (takes

either the left or right side) (only focused on one extreme side). A two-tailed test takes into account both the left and right extremes of a probability distribution. A hypothesis is understood to limit the focus of the research in order to identify the appropriate emphasis, and an incorrectly defined hypothesis can impede the researcher by limiting, or even wrongfully going to direct, the process of gathering evidence to specific outcomes that cannot be used to draw a holistic picture (Stamatovic & Cvetanovic, 2012). Consequently, the following null hypotheses were formulated study:

H1₀: Financial organisations in developing countries do not allocate any portion of their budget towards management of their risks.

H2₀: There are no significant factors affecting the risk management integration Zambia and other developing countries.

H3₀: The industry where a firm operates in Zambia and other developing countries does not influence the extent to which risk management is integrated into the organisation.

H4₀: Financial organisations in Zambia and other developing countries do not have internal risk frameworks that complied with international risk management standards.

H5₀: There is no relationship between a firm's size and the extent of risk management integration in Zambia and other developing countries.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This section discusses a comprehensive literature review, with an emphasis towards materials that illustrate the many efforts of work done on risk management integration into Financial and Insurance Institutions in Developing Countries. Although the focus is on Zambia, the literature expands its review on the general risk theory and the historical development of this practice at the global level. The review then narrows down to discuss the historical development of the risk management practices in the general market especially the banking sector in Zambia which further leads to the assessment of its current status in the country.

In the flow of debate on the financial industry, the review takes a similar approach. The discussion will begin with a review of bank risk theory prior to extending the discussion on to a broader view of managing risks in financial services such as banking. Thereafter, the study was narrowed down to the historical development of the banking sector in Zambia and concluded with the current status of its banking sector.

It is a known fact that the risk factors that affect organisations keep on changing both in form as well as in levels of complexity. Hence the findings that have been included in the review of this literature covers a period of 5 years in age that is from 2015 to 2020 for current empirical findings, but older literature has been used when referencing the material on theories and the framework. The major sources of literature were, but were not limited to, google scholar, J-gate, African Journals Online (AJOL), Unicaf eLibrary, Science Direct and Olajide Solomon Fadun's website.

2.2 Conceptual Framework

The components that interact to explain the subject's cause and effect are discussed in this section. Explanatory factors acquired from the literature were marked for testing and checks to see if they had a genuine influence on the level of risk management integration in developing country

organisations, with a particular focus on Zambia. Hence, the section provides the framework conceptualising the variables to show how these variables interact. To ensure that a consistent discussion is in place throughout the report, there are areas where a need to make use of terms that carry a jargon and technical meaning are introduced while trying to provide the contextual ideas. Such words need to be explained for the readers to easily get along and understand the report. This is the major objective of this section as it has gone further to define the key terms that are frequently used in the discussion of the report. The part proceeds in the same order as the conceptual framework segment, beginning with the Conceptualisation of Variables. The next sections expand on the definition of risk and define other relevant words.

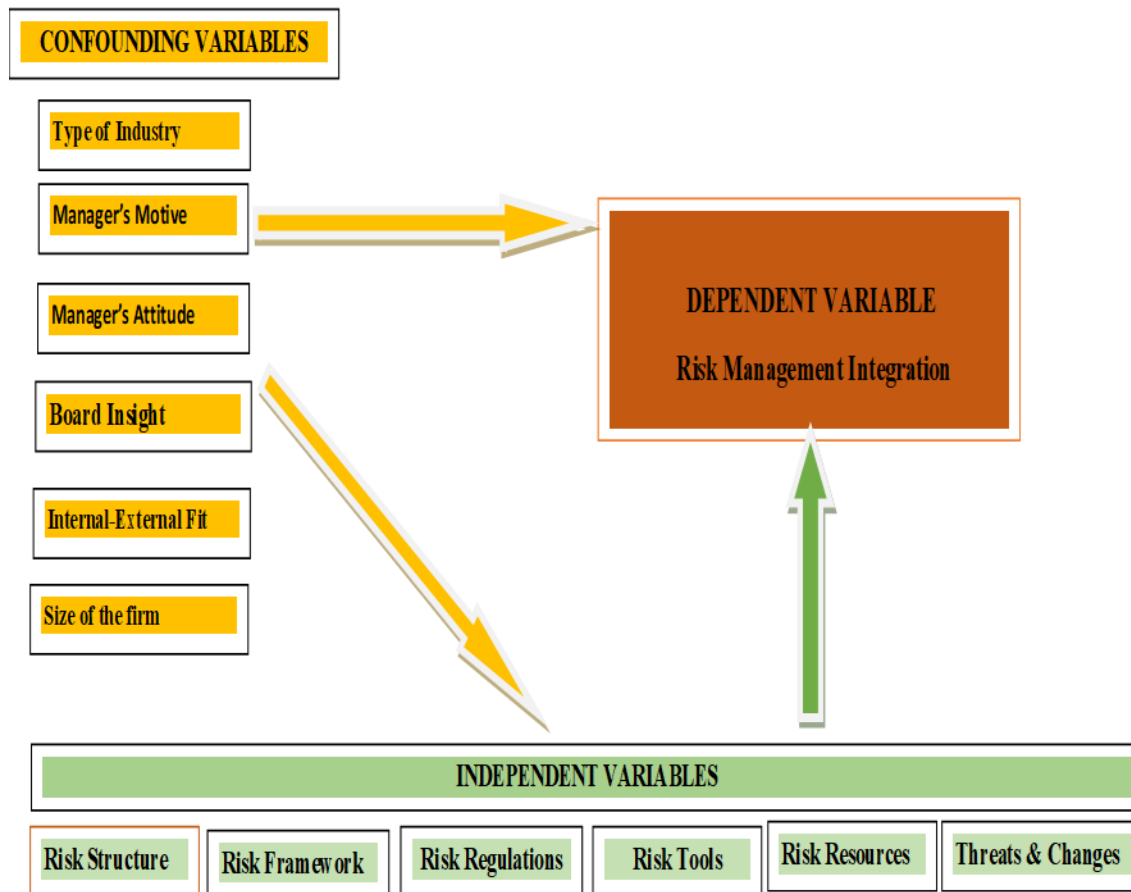
Theoretical literature was studied in order to adequately analyse the study's overall goal, which is to determine the extent to which risk management has been integrated into business organisations in developing nations. Several characteristics were discovered in the literature that helped us anticipate and explain heterogeneity in risk management integration within the setting of Zambia, a typical developing nation. It also assisted in determining the level to which risk management is integrated. The conceptual framework serves as a lexicon (dictionary or wordlist) for the research setting and serves as the raw material for social thinking. It also gives a wider picture than the one narrowly considered in the theoretical framework (Mensah, Agyemang, Acquah, Babah & Dontoh, 2020; Modonesi, 2018). As part of the specified objectives, it is critical to do more research on the pattern of risk management integration across sectors and organisations, as well as the causes that generate variance.

2.2.1 Framework of Variables on Risk Management Integration

The prospective causal effect relationships leading to the variation in the integration of risk management has been presented in the conceptual framework in Figure 2.1. Going by the observation made by Modonesi (2018), concepts are signs or symbols that or can take the linguistic conventions which allow us to identify, recognise, name and classify social phenomena. Figure 2.1 depicts the framework that identifies and recognises the variables that explain the association

between the degree of risk management integration in all organisations and the various factors listed under explaining and explained variables.

Figure 2.1 Conceptual Framework explaining Variations in Risk Integration in Zambia



Sources: The Author (2022)

2.2.2 Conceptualisation of the Framework

Applying the suggestions of Modonesi (2018), the framework identified three types of variables in the causal effect relationships of the study. The first is the set of independent variables. The independent variables are the exogenous external aspects that explain the justification for the

pattern observed in risk management. They affect the explained variable, which is the study's main emphasis, as well as the actual consequence of the independent variable affects. The dependent variable is the second category of variables in our conceptual framework, and it appears in the middle of the schematic figure.. The independent variables have an influence on the explained variable. (Bellemare, Masaki, & Pepinsky, 2017). There are other factors that come into play (confounding factors) that are not strictly mediators but have an influence on the variable being explained and also on the one explaining it. This makes up a trio link with the confounding variable having an influence on both of them (Kamangar, 2012). Each variable in the defined categories must be explained, as well as how they are operationalised. The framework's ultimate goal is to make our study findings more practical, acceptable to theoretical notions in the research domain, and universally applicable (Adom, Hussein & Agyem, 2018). Because the study was based on a smaller space in the Zambian setting, it was generalised to a broader range of poor nations. The first six confounding variables are discussed below then immediately followed by six independent variables.

Type of industry

This variable is understood to be affecting the levels of risk management (dependent variable) in an organisation. Some industries have a higher level of inherent risk than others, which is thought to be a logical reason for using more or fewer systems and procedures for managing risk. Total risk is composed of two parts: systematic risk and unsystematic risk. This is one of the most crucial concepts to master. Systematic risk, sometimes referred to as industry or market risk, which is a type of exposure to losses that cannot be mitigated via diversification (Ghalibaf & Salmalian, 2019).

It has long been acknowledged that certain businesses, such as banking, finance, mining, oil refinery, and information technology, are riskier than others due to informational opacity (Chukwunulu, Ezeabasili & Igbodika, 2019). These businesses use more intricate manufacturing processes and organisational structures, as well as more extensive R&D investments that may cost

more than the end advantages (Wagdi & Tarek, 2019; Soyemi, Ogunleye & Ashogbon, 2014; Mihet, 2013; Huang 2008). All these cited firms have an intrinsic risk in themselves which makes their sector a very risky industry. For example, Chukwunulu et al. (2019) observed that the vulnerabilities that are found in the banking system cannot be eliminated or avoided. These affirmations call into question prior claims, such as Miller's (1993) contention that it is not about the nation or the sort of industry impacts that will give much explanatory on the risk concerns and power impacting input, market demand, and competitive uncertainties. Miller (1993) went on to add that, in any case, no matter how comprehensive an industry grouping is, it would fail to provide significant explanatory power since the uncertainties are specific to the environmental circumstances and the features of individual firms. This variable was included to determine an established stance, particularly the impacts the industry has in the context of risk management integration.

Woo, Kwon, and Yuen (2021) used two models, the Ohlson's O-score as well as the Altman's Z-score to examine the various factors that have a significant effect on the credit risk of two industries, the logistics business at the global level of the industry and the shipping industry, as evidence of this conceptual risk variation by industry. Following data collection, a panel data multiple regression analysis was performed to assess the influence of key financial measures on credit risk for both industries as well as their distinguishing features. While credit risk was found to be almost equivalent on average for both the logistics and shipping businesses, the variability of credit risk in the shipping sector was found to be substantially higher than that of the logistics industry. Although both capital and current ratios have a substantial influence on both organisations' creditworthiness, assets and return on equity and quick ratio have the most massive effect on the logistics and marine industries, respectively. In addition to industry variation, it was shown that there are minor variances in credit risk drivers when assessments are further separated into regions such as Asia, the EU, the United States, and Africa. According to the study, suitable scientific models were developed and recommended for financial indicators, notably for financiers,

in order to analyse the credit risk of two industries, enhance decision-making, and reduce the likelihood of debtor default.

Managers' motives

This is the confounding variable understood to influence the extent to which risk management is integrated into the organisation. It is taken from the agency information theory where agents, who according to Jankensgård (2019) are identified as managers believed to hold intentions and behavioural inclinations that usually deviate from the wishes and desires of the principal owners, who are the shareholders. This implies that the motive of the managers can steer an organisation towards extensive integration of risk management or none at all depending on what interests best suits them. Even if the board is willing to have oversight, the right information may be not given to them to take up a correct approach. So, if the board wishes to adopt ERM, they should first know managers motives and identify certain behaviours and incentives appearing to be of influence to the way risk is managed in the practices of the firm (Lynch, 2008). In a study of investment decisions under risk, Hermeindito (2020) found that the influence of investment motives and investment rewards on mutual fund investment performance is significantly sensitive to different types of participants. Those who invest directly in the capital market appear to be more sophisticated in portfolio management (have a different level of risk management) than investors who solely engage in the mutual fund market.

Altuntas, Berry-Stölzle, and Hoyt (2018) applauded the concept of Enterprise Risk Management (ERM), characterising it as the way of managing all risks confronting an organisation in an integrated, holistic manner. They carried out the study to learn more about the elements that impact a company's choice to deploy an enterprise and risk management system. Their findings lead them to the conclusion that managerial career worries about keeping their positions impact senior management's choice to use enterprise and risk management. This proved the importance of manager motivation in risk management program execution. They went on to say that implementing enterprise and risk management minimises the volatility of a firm's earnings and, as

a result, increases the informativeness of earnings as a signal of the manager's competency. According to the research findings, a manager's incentive motivated by the career worries perspective predicts that a manager with a high beginning reputation, either from the same firm or other organisations, will only embrace ERM after a period of bad performance. They will maintain a straightforward approach depending on their track record and the employer's tolerance. Consistent with this hypothesis, they discovered that unfavourable changes in a firm's historical performance enhance a firm's likelihood of adopting ERM and are followed by considerable increases in the quality of the risk management system of a company.

Managers attitudes

This variable on the attitude of the manager is different from the motive variable in that the former wants to serve their selfish interest but in the latter, the managers may be inclined to harmonise their interest with those of the principal owners of the company without malice. There will be three attitudes towards risk that can be held by the managers, risk-averse, risk seeker and risk-neutral (Iswadi, Saputra, Haykal, & Albra, 2019; Holden, Hall & Mailroom, 2010). Risk aversion attitude is where managers associate risk to negative outcomes and therefore will not take risk management lightly. They will do everything possible to ensure no risk projects are undertaken. These are likely to adopt a more robust ERM than other categories, as the risk is perceived to be bad. The risk-loving or risk seekers are such individuals who consider the risk to be good and will look for it to maximise gain. Such ones are expected to undertake very little effort to manage risks. The risk-neutral comprises individuals who are indifferent to risk, and they do not get affected or moved by risk issues. All that matters to them is a return on investments whether it is coming at a higher risk or not. It is expected that these individuals take risk management casually and out of mere duty (Iswadi et al, 2019; Holden et al, 2010; Guiso & Paiella, 2004).

Organisations and households are both affected by the impact of risk mindset on investing behavior. Branten (2021), for example, looked into the relationship between different risk attitudes and expectations and different borrowing characteristics among Estonian households. The key

study issue was whether risk aversion and optimism, in addition to core economic and sociodemographic characteristics, give further insight into borrowing behavior. The researchers compared probit and Heckman models using microdata from the Estonian Household Finance and Consumption Survey (HFCS). Risk-averse families seek loans more frequently than risk-tolerant families, and their loans are greater, according to his research. Risk aversion for mortgage loans is connected to the likelihood of securing a loan, but risk aversion for non-mortgage loans is associated to the quantity of the existing indebtedness. The factors indicating the household's aspirations for its prospective financial status were identified to be associated with the choice to apply for a loan on their own, but they lacked any other relevant information beyond the household's core economic and demographic and socioeconomic traits. This conclusion implies that risk attitude exposes individuals and organisations to a wide range of risk-taking exposures, affecting the amount of risk management specified by the exposure taken. This applies to both persons and companies.

Board insight

The board of directors of a company is in responsibility of risk management oversight. They will be able to determine the extent to which risk management can be integrated across the organisation's whole culture practice once they have been given the appropriate information in the appropriate quantity. There is need for the governing board of the directors to know and approve the risk tolerance and appetite levels for the organisation. They can only assist this type of risk management if they are well-informed. Hubbard (2020) stated that the visibility of risk management has reached the board level due to the criticality of the board being informed on risk problems. He noted that according to an Aon poll, 88 percent of questioned businesses revealed that the board is reviewing risk management concerns, and 78 percent stated that the board has implemented risk monitoring procedures. This variable borders on the matter of corporate governance. In his mission to evaluate the impact of corporate governance on the performance of Nigerian banks, Fadun (2017) stated that banks' boards and shareholders should impose more force and require high accountability from the trustees of operational duties (managers) in these financial

institutions and banks, ensuring that they act in their best interests as well as good corporate governance practices, which will ultimately improve the overall excellence of banks in Nigeria. Therefore, it is highly expected that this variable is of great influence on the dependent variable in the context of Zambia as well as other developing countries.

According to Ittner and Keusch (2015), the role of the board of directors in risk oversight has come under increased scrutiny, resulting in shareholder lawsuits, more regulation, and more stringent disclosure and listing requirements. While theory argues that Board risk supervision may benefit stakeholders by minimising risk-related agency disputes, critics argue that changes in board policy in response to external pressure may be little more than window dressing. They used archival and survey data on corporate risk management processes to study the influence of board risk oversight responsibilities and practices on the maturity of the firm's risk management procedures and risk-taking. According to the survey results, the placement of Board risk oversight tasks is a significant influencer of Board risk oversight procedures, with better supervision in organisations that officially allocate obligations to the Board as a whole as well as its committees. This also supported the notion that risk supervision is conducted out for economic reasons, and also that the efficiency of Board oversight techniques had a significantly positive relationship with the maturity of risk management processes, as well as a significant indirect influence on future stock return volatility and tail risk due to improved risk management maturity. The position is that the board can only have a sound oversight when they have been fully involved and are enlightened of the risk profile of the organisation. This will result in the maturity progression of risk management practice.

Best Fit Between Internal and External Circumstances

This variable is measurable simply by associating the company's aligning efforts to suit both the internal and external demands of risk exposures. This variable is derived from the contingency theory that is based on a core assumption that organisations are open systems exposed to external and internal interacting factors (Morris, 2019). This creates an ever-changing environment not only from one organisation to the other but also from one period of time to the other. Each situation

calls for its way of managing the risks and there is no one best way of mitigating the presented risks. As a result, a company must create a good fit between its internal systems and its external environment (Kulkarni, 2017). Because no circumstance is the same from one organisation to the next and from time to time, the levels of risk integration on the organisations will vary.

Firm size

The firm's size is recognised as a confounding element that influences and explains the amount to which risk management will be integrated within an organisation. It is thought that the larger the company, the greater the systemic risk exposure. According to Benlemlih, Shaukat, Qiu, and Trojanowski (2018), the size of a company is related to systematic risk, but not to total or idiosyncratic risk. During the 2007 global financial crisis, of course, all firm sizes were affected, particularly the banks were seen to have increased the univariate risk in terms of Value at Risk (VaR), but that large banks had significantly higher systemic risk than smaller banks (Pais & Stork, 2013). The bigger size is also subjected to more risk procedures and regulatory directives than smaller firms. As a result, business size is a demographic independent variable that is projected to impact the degrees of risk management integration as the dependent variable.

Wood, Asef, Alashwal, Wang, and Abdul-Rahman (2018) intended to determine if the ability of the organisation in terms of learning and risk management maturity (RMM) varies by firm size. They bemoaned the scarcity of empirical research in the construction literature on the effect of business size in influencing RMM. As a consequence, their investigation concentrated on four aspects of organisational learning (OL): information acquisition, knowledge diffusion, shared interpretation, and organisational memory, in order to identify the major elements impacting RMM. They used a case study in Malaysia's Kuala Lumpur and Selangor states to test the theoretical model in construction enterprises. They used a sample size of 1000, which they distributed by postal and other methods to managers at the selected businesses. They used the component-based strategy, often referred to as the partial least squares (PLS) approach, to analyse the data.. While adjusting for firm size, the findings of a regression study revealed that ten

organisational learning factors had a substantial effect on risk management maturity. Whatever the size of the company, the identified variables on organisation learning were discovered to play a vital influence in boosting the capacity of construction organisations to achieve improved risk management procedures. As a result, it was recommended that construction businesses desiring greater RMM should pursue OL methods. The found eleven OL components were viewed as a method for bringing organisations to a greater degree of maturity. Companies should spend their energy on two dimensions of organisational learning in particular: information collecting and shared understanding. As a result, the more a firm gathers and analyses project risk information, the greater the degree of RMM the organisation may attain. In addition, active learning from data analysis and interpretation may have a positive influence on risk management techniques. Now this showed that firm size should not be the hindrance to mature risk management practice, but other matters should be. This makes RM to be somehow compulsory in this context.

Risk Management Structure

The presence of risk management structure in an organisation especially that directed by the regulators is expected to be also influenced by the confounding variables such as board insight, managers motive and managers attitude. The filled-in risk department is expected to be active to design and implementing the ERM (Laisasikorn & Rompho, 2019). The presence of the structure is likely to compel the reporting of sufficient information to the board because the risk department cannot afford to be idle. The managers with risk-neutral and risk-seeking are likely to be challenged by the staff from the risk department to take risk management seriously. Lai and Samad (2010) developed an ERM framework comprised of fourteen implementation aspects regarded useful and crucial in defining the intensity, maturity, and level of penetration of ERM practices (extent of risk management integration). The concept was reflected in three primary characteristics of the ERM: process, governance, and structure. This means that the structure is an independent variable that has an effects the explained (dependent) variables, and also the performance of the organisation (Girangwa, Rono & Mose, 2020). As a result, it has been incorporated to the conceptual framework's repertoire.

Risk Management Framework

Risk framework is an independent variable that is considered to be influenced by the confounding variables such as best fit internal and external factors and at same time affects the risk management integration which is the dependent variable. The risk framework is a collection of features that an organisation has kept in place to handle both firm-specific (unsystematic risk) risks and industry, or market-based (systematic risk) hazards, as well as other incoming risks during the operation (Mishra, Rolland, Satpathy, & Moore, 2019). The framework had essentially secured the dimensions as discussed by Lai and Samad (2010) which are structure, process and governance. The duo stated that controlling unsystematic risk through the ERM program may favourably contribute to many types of business performance and value creation for organisations. They stressed that businesses should not be afraid to commit time and money to building a formalised and successful ERM framework inside their management structure, noting that human resources, IT infrastructure, and training are all critical.

Regulators of Risk Management

To evaluate whether there are any larger lessons that policymakers may apply to strengthen corporate governance best practices at other financial institutions in general. According to Akuffo (2020), appropriate supervisory legal conditions are essential for internal procedures of other financial institutions, notably risk management, internal control and compliance, and both internal and external audits.

The firm size and type are highly related to regulatory obligations. Large companies and specifically financial institutions are subjected to the central bank or institutional regulators that give out guidelines on risk management. For example, in Zambia, the central bank which is the Bank of Zambia adopted the Basel II accord of 2004 in the year 2008 and directed all commercial banks and non-bank financial institutions to observe risk management guidelines including the forming of risk management. From there on, such organisations were subjected to compliance

checks in the area of risk management. What has come out as a major factor in this variable is that the degree and method of assessments vary from one country to the other. Borraz et al (2020) discovered profound differences in the approach as well as the major aimed targets of various regulators as they carried out their risk-based inspections of the organisation under their custody. This caused diverse implications in the EU region. They firmly attributed the significant differences in the way they executed the inspection of risk management as caused by the different stipulated requirements within the European Union region. There were some defined requirements which had long been in practice and certain long adopted styles of regulations which differed from one regulator to the other. While this is in developed countries, it is logically true that the same is the case in developing countries as well. Hence the regulator is the independent variable directly linked to the independent and dependent variable in the conceptual framework.

The regulator is connected to managing risk, and a disclosure will not encourage transparency if it looks to be missing crucial and relevant information for owners, depositors, business professionals, regulators, and other stakeholders, according to Akuffo (2020). As a result, it is the regulator's responsibility to ensure that the monitoring is done out and to support risk management's value addition.

Risk Management Tools

Risk management tools are techniques or procedures for detecting, monitoring, assessing, and reporting on the many dangers that an organisation confronts. Some of these strategies include assessing market value at risk (VaR), stress testing data, credit risk mitigation methods, and operational risk management tools, to name a few (Ostrom & Wilhelmsen, 2019; Boubaker, Buchanan & Nguyen, 2016). The management tools are linked to the best-fit predictor variables and are designed to be used to determine the extent to which risk management is applied in the financial institution.

Risk Management Resource Allocation

All the tools and frameworks need resources to be secured in the organisation and are believed to be necessary for a full risk management implementation strategy. In addition, all mitigation measures require resources to be in place. When evaluating the difficulties of implementing risk management in a typical organisation, Fraser and Simkins (2016) identified 8 major challenges in implementing ERM and among them was the lack of embracing risk culture in the organisation and not recognising ERM as a change management system. These challenges make it difficult for others to justify the expense on risk management issues and prioritisation of resources towards risk implementation suffers. This independent variable was measured in terms of how much budget is allocated towards the implementation of risk management in the organisation.

Environmental changes and threats

The best fit variable is affected by the environmental threats and opportunities presented. The volatility of the market and environment where an organisation operates is expected to prompt it to adjust the risk management framework, change the motive and attitude of the managers and eventually redefine the risk management integration levels (Morris, 2019; Kulkarni, 2017). Changes in the environment are expected to affect the best fit variable and also affect the dependent variable. Responding to changes in the environment is expected to be inevitable as they are the only means of survival in the industry.

2.2.3 Meaning of risk

There are various definitions of risk that scholars attempt to put across. According to Taarup-Esbensen (2019), four key changes have occurred in the conceptualisation of risk in business and organisational literature. These viewpoints span from technological-scientific to cognitive, social-cultural, and constructionist. Organisations have found it difficult to comprehend and reduce risk

using risk management tools at their disposal because each area conceptualises risk differently. He added that over time, people started to progress more and more towards being scientific. For example, for quite some time risk events have been understood and associated with supernatural powers. Then moved to a more scientific approach where it was biased towards losses. In this concept, the risk was defined as uncertainty to financial loss as seen from these old scholars (Rejda, 1989; Mark & Trieschman, 1988; Mehr, 1986; Huebner, Black & Cline 1982; Bickelhaupt, 1974; Denenberg et al., 1974). In this definition, the risk is bad and should be avoided at all costs. According to Pfeffer and Klock (1974), risk often refers to threats to which an individual is actually exposed at any moment. So, the risk is taken as a state in which losses are possible and if there are no losses attached then risk has no meaning for the outcome of a concern. Others, such as Vaughan (1989), claimed that risk, unlike the straight or linear thinking about the idea, may be described as any scenario in which there is a chance of experiencing an undesirable divergence of outcomes from that of the intended state or one hoped for. From this definition, it is clear that bad impacts were just one of many possibilities that may have occurred.

But within the same period and towards the period about a decade before the 21st century, risk definition changed from being negatively laden to an emphasis on general uncertainty of outcomes either good or bad. For example, William and Heins (1989) defined risk as the diversity in outcomes that may occur during a certain time period. If just one result is conceivable, the variance and hence the risk are both zero; nevertheless, if several possibilities are possible, the risk is not zero. Furthermore, Doherty (1985) stated that risk is defined as the absence of predictability of events. Risk in this context does not indicate that the outcome will be negative, merely that it will not be known in advance. No definition is wrong but what matters is the inclination of perception. It is also important that these two sides of the risk understanding make up the nature of risk discussed in section 2.2.3 of this report.

For the objective of this study, risk is regarded as the uncertainty of events that have an influence on the attainment of company objectives. Risk is defined in this definition as unpredictable incidences that may have an influence on the organisation's objectives. The risk may be defined as

any scenario or situation, the existence or occurrence of which, if reasonably anticipated, has a substantial influence on the achievement of the objectives. This concept is also accepted by contemporary academics such as Srinivas (2019).

Therefore, throughout the discussion in this report, risk management should be taken to mean all those management efforts, processes, and measures put in place to mitigate any uncertain events that might occur to affect the realisation of organisational objectives. The next section focuses on the discussion of the various components of risk.

2.2.4 Components of Risk

The three major components of risk are independently and seriously considered in determining any risk management system. The Components are *event, likelihood and impact*. The first component event is also called the values, the second component likelihood is also called probability and the last component impact is also called hazard (Kırılmaz & Erol, 2017; Abd El-Karim, Mosa El Nawawy & Abdel-Alim, 2017). Risk management centres around these three dimensions and so it can be well elaborated more about each one of the components.

a) Event or Values

The event or values reflect the incidents that might occur - here is where the risk comes into play. The values are the ecological, social, and economic resources that might be lost, harmed, or acquired as a result of the events that have transpired. Ecologic values might include flora, wildlife species and their habitat, air and water quality, soil production, and a variety of other ecological services. While social event consequences might encompass everything from life, cultural and historical resources, natural resources, artifacts, and religious locations to name a few. Economic values might include property and infrastructure, commercially valued natural and cultural resources, recreation and tourist possibilities, and so on (Abd El-Karim et al., 2017).

b) Likelihood or probability

Probability measures the probability that the event will occur or the likelihood of its crystallisation into an outcome that positively or adversely affects the values. Risk managers require a huge quantity of information when forecasting the chance of occurrence in risk management, which might fluctuate from place to place and from time to time. The likelihood may also be forecasted using prior event data and extrapolation of past event regression data (Kırlmaz & Erol, 2017).

c) Impact or Hazards

The impact component assesses the severity of the hazard and may include factors such as the conditions under which an event occurs and exists; the ability of the event to spread and circulate; the intensity and severity of the event; and the spatial extent of the event. The impact is the ultimate consequence of the event if it occurs – the penalty and the price you pay (on the negative side) or the benefits that you realise from the occurrence of the event (on the positive side). When you combine the measurements of impact against the likelihood of a given event you arrive at what is called the ***risk heat map***. The risk heat map shows the likelihood on a continuum from most likely, likely, unlikely and rare, not likely on a five-anchor rating in one axis and the impact from catastrophic, major, considerable, minor and insignificant (Abd El-Karim et al., 2017; Kırlmaz & Erol, 2017).

2.2.5 Nature of Organisational Risks

As highlighted in section 2.2.1 of this report, The nature of risk is divided into two categories: positive and negative. The reactions of shareholders, the board of directors, management, and other stakeholders differ for each. Positive risks are viewed as opportunities, and proactive actions to raise them are done. Negative risks can jeopardise the success of a project or the achievement of organisational goals, thus the organisation must work to reduce these risks. Mata et al. (Mata et al., 2018). Kaplan (2020) noted that when the risks are associated with the opportunities, some gains might come with them for example the following situations may be considered a reality;

- (a) To remain competitive, a company may have to assume greater risk in order to create larger profits.
- (b) On the other hand, refusing to embrace risk makes a firm less dynamic and indicates a "follow the leader" strategy.
- (c) Taking risk indicates that the benefits from various activities will be greater than the expenses, and hence the benefit is the reward for taking risk.
- (d) Benefits might be monetary, such as lower expenses, or intangible, such as higher information quality.
- (e) In each of these circumstances, the firm will be able to obtain a competitive edge.

There are risks linked with unknown future occurrences when the risk assumes the negative shape of its nature. In this situation, risks might have a negative or negative exposure or have an unfavourable influence on the organisation's objectives. When risk takes this shape, management can use what is called the Precautionary Principle also abbreviated for the short of PP and the As Low As Reasonably Practical which is usually abbreviated to ALARP method to mitigate it. The conclusion under the former approach is to engage in very little or avoid the enterprise entirely, but in the latter, it is acknowledged that because risk cannot be eliminated, the residual risk should be as low as reasonably practical. Taking into account the high cost of risk reduction. (Pike, Khan & Amyotte, 2020). The nature of risk varies from one type of organisation or industry to the other. The next section focuses on the different types of business organisations.

2.2.6 Business Organisations – ownership, size, and industry types

The subject of business organisation is the broadest in scope and therefore the section has narrowed the discussion in terms of ownership, size and industry type for both simplicity and feasibility reasons.

a) Different business ownerships

Sole proprietorship, partnership, corporate, Limited Liability Company, and cooperatives are the five most frequent company ownership forms (Ayadi, 2019). The most prevalent type of business is a sole proprietorship, in which there is no distinction between the business and the owner. The owner is entitled to all earnings and is personally accountable for the firm's debts, losses, and responsibilities. These five categories of ownership are described by ASHA Corporate Partners (2020), beginning with the partnership, which is defined as a single firm in which two or more persons share ownership. Every partner contributes to the organisation in some way, whether it's money, property, labour, or expertise. In exchange, each partner shares in the firm's gains and losses. A corporation, sometimes known as a C Corporation, is a legal entity that is run by humans. This implies that the corporation, not the stockholders who own it, is legally liable for the company's acts and responsibilities. Corporations are more difficult than other types of business agreements because they have more sophisticated tax and regulatory obligations. Parastatals are companies that are owned by the government or state-owned enterprises. A limited liability company (LLC) is a form of legal structure that combines the limited liability of a corporation with the tax advantages and operational flexibility of a partnership. A cooperative is owned and administered by the group for the benefit of people who use the services. They are widely used in the healthcare, retail, agriculture, arts, and restaurant industries. The cooperative's profits and revenues are divided among its members (ASHA Corporate Partners, 2020). In all these categories, the organisations are grouped further into private and public ownership in which the latter is government-owned while The levels of risk management follow the levels of exposure and sophistication of the business owner.

Concerning the risk management in private and public organisations and the effect of firm size and ownership, as assessment was done by Sharifi, Haldar and Rao (2016) on some banks in India. The study was done on the firm size effect on the implementation of various taxonomies of risks including operational risk management. It was reported that bigger banks such as those of the government (public sector) banks were found to be holding a higher or excess capital to manage operational risk than those small from private and foreign banks. They mitigated this claim by

claiming that public banks have less operational independence than private banks due to government ownership and the resulting political and bureaucratic meddling. From within, state bank loan officers and bank managers are less inclined to take risks and are more cautious in loan selection since their judgments are likely to be called into question in the future, and they risk being investigated by government agencies if incorrect loans are granted. These government banks are funded by the government's budget and are not required to produce a decent return, as opposed to private and international banks, where capital suppliers anticipate better returns on money borrowed. However, one may argue that because government banks have some resources, networks, and regulatory influence, they are not obligated to adhere to strict guidelines (Sharifi et al., 2016).

b) Different Business Organisation Sizes

Business sizes in the manufacturing sector are classified by the Organisation for Economic Cooperation and Development (OECD) determined by the number of workers. An enterprise is a legal body that may do business on its own, such as enter into contracts, own property, incur debts, and open bank accounts, according to the OECD. An enterprise might be a corporation, a quasi-corporation, a non-profit organisation, or an incorporated entity, according to the OECD (2020). The size of a company may be used to classify it into a variety of categories; multiple criteria can be used for this, but the most frequent is the number of employees. Small and medium-sized businesses (SMEs) employ less than 250 people. SMEs are divided into three categories: micro-enterprises (fewer than ten employees), small companies (10 to 49 employees), and medium-sized firms (50 or more employees) (50 to 249 employees). A major company employs at least 250 people (OECD, 2020). The market's systemic risk has an impact on the size of a company.

According to Sharifi et al. (2016), several research have been undertaken throughout the world that have corroborated and proven size to be a key factor of operational risk management (ORM). For example, Fontnouvelle et al. (2006) shown that operational losses are a substantial source of risk for large banks, and that the capital needs for operational risk are larger than those for market

risk. This conclusion was complemented and verified by the constant amount of capital that several big multinational banks allocate for operational risk. In another setting, Chernobai et al. (2011) confirmed that most operational losses in many US corporations are caused by a failure of internal control. It has been shown that organisations susceptible to these types of risks and incurring these losses are typically younger, smaller, more complex, and have a higher credit risk. The study found that the size of the company directly affects the amount of capital required to manage operational risk. The fundamental argument here stems from the ample evidence that economies of scale existed only in small and medium-sized banks, but economies of scale existed in all banks of all sizes (Rime & Stiroh, 2003; Wheelock & Wilson, 2001). Redundancy in the internal structure, as well as the likelihood of cell failure, play a role in tiny banks. Small banks cannot invest in advanced internal controls since they are not large enough to justify it and hence have a greater surplus capital (Sharifi et al., 2016).

c) Business Organisations by Industry Type

There are many industries, and, in the 20th, century attempts have been made to classify industries using some standard classification schemes. There are many classification schemes each facing challenges and obsolete as technology and moving time complicates the business and more industries are formed. Standard & Poor's and Morgan Stanley Capital International (MSCI) launched the Worldwide Industry Classification Standard (GICS) in 1999 to offer a uniform, robust worldwide sector and industry framework that would overcome many of the issues faced by previous industry classification methods. Over the past two decades, GICS has been able to abate the effect of inaccurate and unclear categorisation on everything from investment research to risk allocation (Kozlov, Kulkarni, Li & Bitsadze, 2020).

Other efforts were made by Dow Jones & Co. and the Financial Times Stock Exchange (FTSE) who launched the Industry Classification Benchmark (ICB) 6 years after the GICS in 2005. There is deviation and major variances in the classification system from the other system. For example, ICB classifies more than 70,000 companies, compared with 43,000 covered by GICS.

demonstrating that there is a big discrepancy in the categorisations used by GICS and ICB: One of the notable differences between the two is that while GICS has a three-tier structure from the *sector - industry - subindustry*, ICB has a four-tier structure consisting of 11 industries, 20 supersectors, 45 sectors and 173 subsectors (Kozlov et al., 2020). Our focus is on the financial industry, particularly banking and insurance which has the industry code of 8000 Financials and subsector 8300 for Banks and 8500 for Insurance.

Kalkhouran (2018) made an effort to examine whether techniques for enterprise risk management (ERM), along with risk assessment and regularity of use differ by industry type and explored the fit with the type of industry to improve organisational performance. Using an online survey, he examined a sample of 120 useable responses from among 363 listed companies in Malaysia. The Partial Least Squares model was used, and the data were analysed in the Smart PLS 3 software. It was found that the type of industry was a determining factor of risk identification techniques and frequency of use. Also, the results suggested there is the two variables directly addit the performance of the organisation. Further, it was noted that regarding the instructiveness of risk identification techniques and frequency of use mediating roles, the results indicated that performance was mediated by highly interactive techniques and frequency of use for industry type. It is argued that organisations in different industries face different levels of risk and therefore they are likely to apply risk identification with different frequencies over time. According to Kalkhouran (2018), the recurrence of risk identification processes must be proportional to the pace of risk evolution. For instance, organisations in the category of traditional energy and water utilities with more stable circumstances can concentrate on current operational problems and day-to-day efficiency. He observed that long-range planning and forecasting are unnecessary because environmental risks in the future will be mostly the same as they are today. He reported that since much of the risk arises from coping with a reasonably well-known environment and the risks are relatively unchanging, there is no need for organisations to review the future risks frequently. However, for more risky industries with more focus on innovation and with more volatility in the environments such as telecommunication and software industries, planning and forecasting have

become essential. Therefore, since the external elements that affect organisations in these riskier industries shift rapidly and more frequently, it is expected that investigating the external environment and relatively future risks be done continually and more frequently (Kalkhouran, 2018).

2.2.7 Nature of Business Organisations in Developing Countries

The Business groups in developing countries tread on a different trail from those in developed countries. Generally, the business groups are formed amidst many challenges that usually involve limited capital and a low market base. According to Kock and Guillén (2001), there is a common corporate style in rising nations that appears to be at odds with conventional strategic management theory. Rather than inventing new goods, they use local and international connections to incorporate foreign technology into domestic markets. The ability to use relationships that are generally relevant to a variety of businesses encourages unconnected diversification. They observed that the main or initial cause for the creation of business is done in a different environment in the late-industrialising countries, but the adoption of outside strategies outweighs other capabilities in importance. So, even though they appear to build enterprises based on this core competency, the organisations end up with unrelated diversification in terms of goods, technology, as well as organisational competencies and a fluid organisational structure. Second, in late-industrialising countries, the differential selection environment evolves systematically over time, influencing the factors that drive enterprises' continued survival and expansion (Kock & Guillén, 2001). This reduces the lifespan of businesses in developing countries.

On a positive note, business organisations in developing countries are operating in environments most of which have resources available in form of raw material and this gives them a strength to be focused on endowed natural inputs for expansion than business in countries like China. It should also be emphasised that when it pertains to manage risk, the risk management models used are those proposed by inventors in developing nations dealing with a variety of risk exposures. This poses a challenge in how much and when risk management integration should be effected in an

organisation (Imhonopi, Urim & Excellence-Oluye, 2018). The next section highlights the meaning of risk management integration in an organisation.

Naveed, Fayyaz, and Hongxing (2020) identified the much more distinctive characteristics of firms in developing nations in their study of the variables influencing the investment decisions of individual investors in developing countries based on empirical evidence in Pakistan. They indicated that many businesses are facing challenges and depend on individual investors will. And the factors influencing the owners of funds are trust challenges, belief in luck rather than risk management and regrets from past experiences. In their perspective, they asserted that investment is influenced by the unique decisions of individual investors, that academic achievement, risk-taking, trust, and gender were positively and significantly associated, but that belief in luck was neither positively nor negatively related to individual investment decisions. To be more precise, they discovered that investment in Pakistan has been steadily falling in recent years when compared to other emerging countries. Furthermore, national economies were immediately impacted by investment decisions made by investors who were skeptical of the soundness of economic fundamentals. Hence the economic deficiency created by the many financial ailments subjected the business to shaky bases which call for risk management. These characteristics peculiar to developing countries make it difficult to flourish and risk management is needed for redeeming these companies especially if it is tailored to the circumstances.

2.2.8 Integration of Risk Management in an Organisation

The degree to which a risk management system has been integrated within an organisation is known as risk management integration. Barafort, Mesquida and Mas (2017) observed that some metrics used in the risk integration are easily triggered by a good awareness of the firm's background, the presence or absence of the thinking that is risk conscious, the type of management, commitment and willingness of the leadership, the approach prevailing during the decision-making procedure and finally the risk structure. When a corporation integrates risk, it gathers all types of hazards and use integrated risk management tools and techniques to manage the risks and

communicate across business lines or levels. This system of integration is far yielding than the common or traditional approach to managing risk where the exposure to risk is handled in what is called silos. The risk integration approach will enable the organisation to devise both combination and modification of the organisation's operation, amends its structure of the capital and makes use of targets that are based on risk assessment as well as financial instruments (Meulbroek, 2002). The integration of risk management, therefore, shifts an organisation from traditional type to one that is based on the non-silos but for entire enterprise (ERM). This is the primary issue and of much interest in our study to establish how much risk integration has been done in the financial sector and many others too. Enterprise risk management, according to Alviunessen and Jankensgrd (2009), is concerned with a company-wide, holistic approach to risk management, and uses the risk universe checklist to consolidate information according to risk exposures.

2.3 Theoretical Framework

The extent to which risk management has been integrated into financial and insurance institutions in developing countries is explained by many theories and frameworks most of which predict human behaviour. This section considers several theoretical frameworks that explain the cause for varying degrees of risk management implementation in organisations. The section further explains the two theories and one framework that highlighted the observed variation in the integration of risk management in an organisation. These are (i) the agency and the information problem and (ii) contingency theory

2.3.1 The Agency and the Information Problem Theory

The agency theory was proposed by Smith and Stulz (1985), yet the combination of the agency and the information problems was proposed by Jankensgård (2019) where he argued that the nature and extent of risk management in any organisation will be determined by the degree of two major problems that border on governance and aggregation. The Governance problem or the agency problem of corporate risk management where agents (who he identified as managers) pursued goals with behavioural preconceptions that do not match with the desires of providers of capital

(who are the shareholders). The other problem lies on the aggregation issue due to the problem of information flow between the operatives and the strategic people. The true risk profile is misrepresented and hence some risks are over-managed while others are under-managed.

In the agency problem, The question is whether self-serving managers influenced by behavioural biases would adopt steps for risk management that are in the greatest advantage of the firm's shareholders, hence creating the corporate risk management agency issue (Tufano, 1998; Smith & Stulz, 1985; Jensen & Meckling, 1976). While Jankensgård (2019) noted that managers have a tendency to under manage. those with chances of occurring but with high impact and over-manage those which are high likely to occur but with salience. These maximise the immediate gains and undermine those of the future. Risk under- and over-management issues are driven not just by behavioural biases, but also by common incentive systems. The theory reveals that managers are likely to pursue projects that maximise their satisfaction by avoiding those which do not bring much value to them. Some of their undertakings maybe serving own interests and acquire those assets where they have an absolute or a measure of control.

The information problem arises from the way managers collect information about risk exposures that facilitate centralised approach to making risk based profiling in terms of the return and the utilisation of the economic capital. This creates the corporate risk management information challenge where a gap is created between top and bottom. Decisions delegated by operating units with knowledge do not freely make that information accessible to an institution's board of directors for easy monitoring and oversight(Harris & Raviv, 1996). This gives an elusive picture of the overall organisation on which the board bases its risk management decisions. This information can be exaggerated or underrated.

In line with this theory arguments, many empirical findings have been confirmed to be working along the trails of the theory. For example, it is argued that the information problem was the cause of the financial crisis of 2007-09. Because of many challenges in risk management today, it has been recognised that a created overall wide picture of the organisation's net risk exposures is caused by unstable and feeble internal capacities to supply quality risk information. (Banking

Supervision Committee of the Basel Convention, 2013). Similarly, Shleifer and Vishny (1997) noted that there is overwhelming empirical evidence pointing to the cost caused by agency problems which is very significant and real. According to Lynch (2008), a board of directors interested in implementing ERM should prioritise the numerous reasons and motivations that are likely to have a significant impact on the firm's risk management practice. Smith and Stulz (1985) confirmed that because the life of the managers far depends on the life of the company, much of their wealth also get tied in the same organisation. As a result, they are more inclined to be risk averse than the principal owners because they want to prolong the life of the firm. They added that whenever and wherever they get hold of the chance to manage policies, they will ensure that they take those risks which will result in benefiting them more than the owners. According to Fadun (2017), a CEO's capacity to increase the company's fortune through wealth creation for shareholders has an influence on his or her tenure. This means that the CEO will endeavour to manage the risks of the organisation for purposes of securing their job and they will be risk conscious during their tenure and prove to be effective and productive, positively steering performance and increasing investors' confidence.

This theory has explained that risk management in an organisation will be determined by the extent of the agency and the information problem. Since these problems will vary from one organisation to the other, hence the extent of risk management integration will vary.

2.3.2 The Contingency Theory

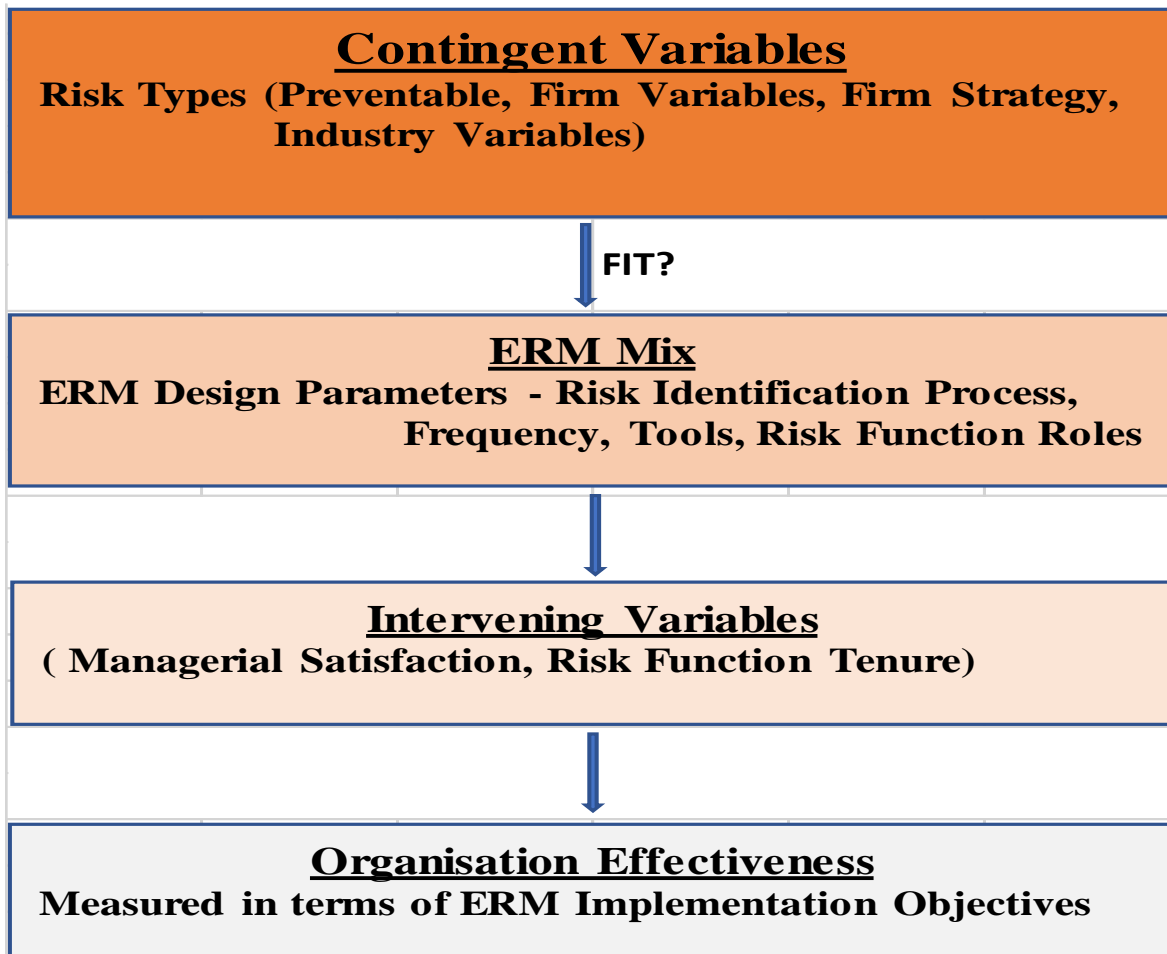
The essential assumptions of contingency theory are that organisations are open systems with no one ideal type of organisation and that they must achieve a good match between internal systems and the external environment (Kulkarni, 2017). Jankensgård (2019) who pioneered the agency information problem recognised that contingency theory is cardinal in modern risk management as it accounts for the reasons behind the observed diverse levels of implantation when it comes to ERM in different firms. He recognised and stressed that because of variation in what is applicable to each firm, there cannot be a single method that that will prove to be universally ideal for every firm value maximisation. It is understood that any firm can maximise value by blending an ERM

strategy that best suits its prevailing circumstances with fitting parameters. The ERM contingency theory is purely based on the environment based of ERM to find the firm best risk management practice.

When Woods (2009) used case study information from Birmingham City Council's risk management control system to empirically test the hypothesis, he found that it worked. By constructing a contingency theory for the public sector, he attempted to improve current knowledge. While the control system's structure matches a general model, the operational specifics show that controls are dependent on three factors: regulator rules, information and communication technologies, as well as the organisation's size. This means that the organisation will need to choose the *best fit* after considering the regulator, ICT capacity and organisation size.

The contingency theory of risk management has been interpreted in several ways yielding different frameworks. For example, Mikes and Kaplan (2014) summarised the best-fit minimum variables that an organisation can mix in a contingency framework for organisational effectiveness. Figure 2.2 below shows the contingency variables that can be triggered by different risk types such as those emanating from internal or external. The organisation has to respond by devising an appropriate ERM mix with risk identification, process, and tools and so on. The other set of variables would be the intervening variables such as managerial attitude. These eventually determine the organisation effectiveness and realisation of objectives.

Figure 2.2: Minimum Contingency Variables for ERM

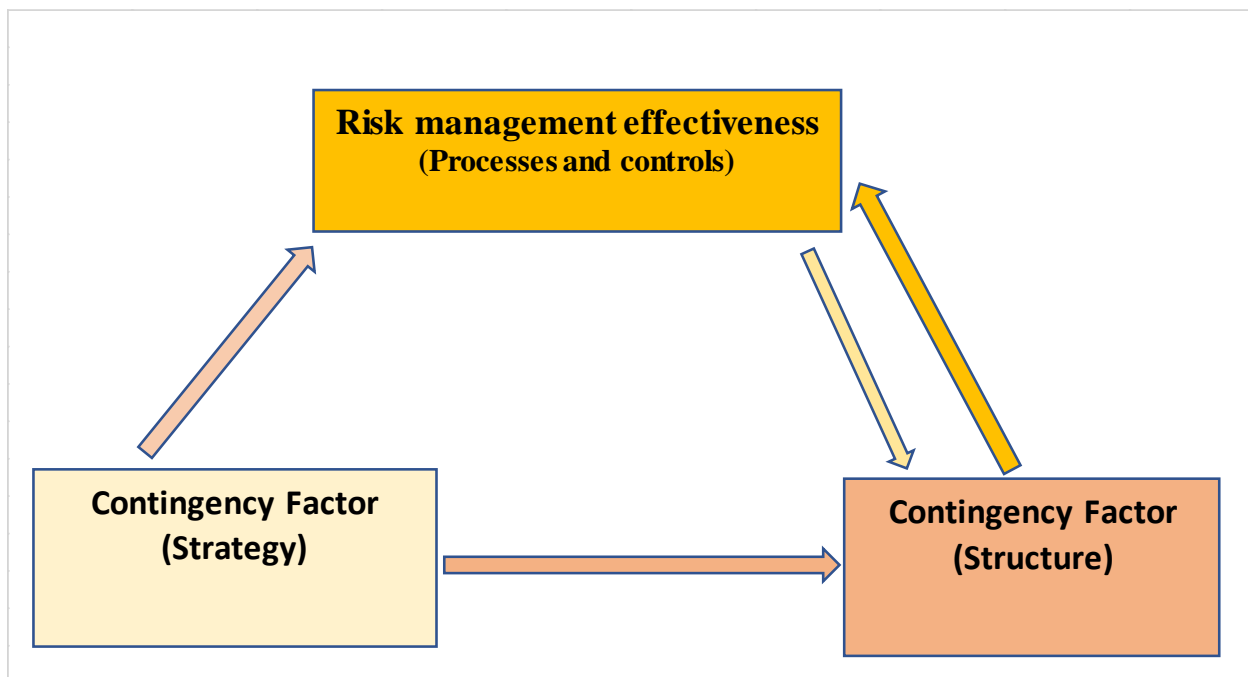


Source: Adapted from Mikes and Kaplan (2014)

Silva and Fernandes (2019) interpreted the contingency theory for risk management as an interrelationship of three factors. The best fit here will be a mix of organisation structure, strategy, and risk management processes. Here, the strategy is a predictor, and the structure will be adjusted to meet the demands of the strategy and then an appropriate risk management system will be aligned to reduce issues of bureaucracy in the structure. Figure 2.3 summarises the contingency framework of ERM.

The applicability of the contingency theory to the integration of risk management is that the theory helps us explain the variation in the integration of the ERM in organisations as the laws, organisation, IT platform and size vary. The structure, strategy and process will also vary from one organisation to the other. The extent of variation in these variables leads to the equivalent variations in the degree of ERM integration. Smaller companies are less likely to embed risk management because they may not be subjected to government laws and may have small IT platforms. The degree of exposure to contingency variables both internal and external are not uniform across the firms. Hence, there is a need to expect a different level of risk integration in the organisations.

Figure 2.3. The interrelationship between contingency factors and risk management



Source: Adapted from Silva and Fernandes (2019)

2.4 Empirical Framework

Rather than theory or belief, this component of the literature review focuses on actual study results based on seen, measurable occurrences and acquired knowledge from experience. The major goal at this step is to use diverse research approaches to verify empirical data from papers, books, or reports. This helped this study to assess whether to recreate some of those studies or test the results in a different context. The critical elements desired were the concise answers to the research questions, the characterisation of the population, attitudes, or phenomena being studied, and a description of the procedure used to analyse the population or circumstances, including eligibility criteria, controls, and measuring instruments.

2.4.1 Extent of risk management integration in Business Organisations

There are different business organisations involved in different economic activities. The section deals with some empirical findings on how risk management integration affects businesses for the corporate, SMEs and family setups depending on the various levels of integrating risk adopted in their day to day practice.

Before considering these various trends in different categories, a focus on the risk maturity model is in order. A maturity model shows the stage by stage of progress on the approach to achieving the needed performance (Aas-Haug & Haskins, 2021). Furthermore, according to Becker et al. (2009), enterprises must have a set of standards for the establishment of maturity models, as well as a framework for systematically constructing and designing maturity models, and all organisations are expected to function at some degree of risk management maturity. A risk management maturity model, according to Hopkinson (2016), may help organisations improve their performance, and a risk maturity model is a tool for measuring risk management competency. Implementing a risk management model might aid in bridging the gap between the present state and the desired state. However, despite all these values arising from the risk management maturity levels, many organisations have proved to ignore the implementation. Long before this establishment, Despite the current consensus on the usefulness of risk management, Hillson (1997) found that implementations are ineffective. He went on to say that many organisations abandon

the endeavor or fail to achieve the anticipated objectives as a result of early activity termination. The levels which many organisations have climbed on the radar of maturity are now discussed in the following paragraphs.

Dellana, Kros, Falasca, and Rowe (2019) looked into the concept of supply chain risk management integration (RMI) in influencing the effect of supply chain service quality (LP) and supply base performance (CP), as well as the correlation between LP and supply chain service performance, for corporate firms (SP). They also wanted to see how total cost and service performance affected the firm's final result. They looked at samples from ISO 9001-certified and non-certified companies to see if enhanced risk-based thinking, as mandated by the most recent ISO 9001 standard, had a positive influence on the various connections. With 140 supply chain managers' participation, a theoretical model was constructed and assessed. To verify the model, two subsamples were employed (a group of 63 ISO 9001-certified enterprises and a group of 77 non-certified firms). LP was positively connected to RMI, CP, and SP for both certified and non-certified enterprises, whereas SP and CP were related to FP. For certified organisations, RMI somewhat mediates the relationship of LP with both CP and SP, but not for non-certified organisations. The research also showed that organisations with an ISO 9001 certification can benefit from RMI operations, but businesses without an ISO 9001 certification couldn't. Risk management integration is critical to the performance of business supply chains, according to the conclusions of the study. It should also be mentioned that the study had significant limitations because the study conclusions were dependent on the viewpoints of the managers involved. The researchers also noticed that, despite the fact that the majority of the 63 certified organisations included in this study were ISO 9001:2015 certified, the model findings did not differentiate between companies certified to the 2008 and 2015 versions of the standard, which specifically requires demonstration of risk-based thinking.

Despite these limitations, the study's findings had practical consequences, ISO 9001 provides a foundation for risk management practices and communication to supply chain members, according to the findings. which might have a good influence on the link between LP, cost, and SP. As a

result, integrating comprehensive risk management is a sensible way to improve supply chain performance.

The role of competitive advantage in mediating the relationship between enterprise risk management practices and SME performance, as well as the role of financial literacy in moderating the relationship between enterprise risk management practices and competitive advantage, was investigated by Yang, Ishtiaq, and Anwar (2018). Data was collected from 304 small and medium firms (SMEs) operating in Pakistan's developing market using a standardised questionnaire. According to the findings, excellent non-traditional enterprise risk management practices have a considerable beneficial influence on a typical SME's performance and competitive advantage. Furthermore, it was observed that competitive advantage moderates the link between enterprise risk management practices and SME performance, and that financial literacy moderates the relationship between enterprise risk management practices and competitive advantage in a significant way. To gain a competitive advantage and improved performance, organisations should use formal enterprise risk management methods, according to the authors. They said that top management should have sufficient financial expertise to efficiently undertake risk management operations in order to maintain a competitive market position.

Hiebl, Duller, and Neubauer (2019) looked into how risk management is integrated in family companies. Despite the fact that family businesses are the most common form of company in the world, they discovered that the existing enterprise risk management (ERM) literature is deafeningly silent on their use. They observed that family businesses had characteristics that are likely to impact ERM adoption. Furthermore, and perhaps most importantly, they discovered that while family businesses had fewer agency conflicts, they are less inclined to invest in initiatives to address them. As a result, family firms are expected to be less willing to invest in ERM. They performed a study based on a survey of 430 businesses in Austria and Germany to investigate this essential notion. According to the statistics, family firms, particularly those with a family CEO, had a lower adoption of ERM. According to the findings, future empirical ERM research should analyse or at the very least correct for familial effect.

2.4.2 Risk management integration in developed countries

This section discusses the risk management integration in developed countries with a particular interest in the factors that influence the levels of risk management integration, the methods employed in implementing risk and the effect it has on the organisation performance. It is important to first highlight the major characteristics of the developed countries about risk management compared to the other levels of the economy.

Maffei and Span (2021) investigated the level of development of enterprise risk management (ERM) in Europe, focusing on the similarities and variations in ERM application across European nations. The investigation evaluated just the important variables, such as the status of development of risk management across nations, the institutional framework, and the cultural features surrounding risk management development, which are analysed from a comparative standpoint. This analysis enabled them to identify five clusters of countries by tapping into the overall European picture of risk management and highlighting that ERM development advances at different rates in the European area and that more effort should be put into aligning and making coherent ERM thinking and ERM use. The survey and analytical efforts showed the required factors that can increase the right application of ERM, the distribution of best practices (or, better, best logic), and the early detection of those situations leading to resistance and ineffectiveness.

Wieczorek-Kosmala (2017) discovered substantial constraints related to the limits of much lower knowledge, comprehension, and implementation of risk management procedures in Poland, which is one of the Eastern European nations. He recognised that risk management research in these countries is limited in comparison to research in Western countries, and his study aimed to contribute to filling this research gap so that the results could provide some insight into risk management practice and its financially relevant implications in Poland, as well as serve as a relative basis for similar studies in those other post-transition countries. This shows that developed countries have in abundance the risk management gadgets including enough knowledge and research findings in the context of their environment compared to developing countries. This was

supplemented by Waweru (2017) that there is a wide literature on farmers risk attitudes in developed countries than are available in developing countries. In addition, he concluded that the social and economic environments in developed countries are different from developing countries specifically African countries, which makes it difficult to generalise the results obtained from the developed countries and apply them in African countries. Hence this discussion separates the two categories even when it comes to risk management integration.

The goal of Jagoda and Wojcik (2019) was to look at a framework that shows how organisations in Northern Alberta, Canada, used risk assessment and analysis techniques to identify sustainable operations and ways for generating low-risk results. They pointed out that businesses are confronting more rules as the global environment becomes more complex. Financial and social risks, they noted, are frequently disregarded despite their importance in providing the appropriate framework for risk management. The most striking finding was that current oil and gas companies in Northern Alberta are under pressure from the media, the public, and the government to take risk management seriously and take precautionary steps to reduce their carbon footprint and allow technological innovations to play an assertive function in sustaining productivity and reliability. The authors developed and illustrated the risk management framework, in terms of technique, a case study approach was used.. One of the study's first conclusions was that it provided a theoretical framework for analysing and minimising risk in the oil and gas industry by describing various methods of innovation and sustainability. Within an evolutionary framework, risk integration and mitigation is simulated and quantified. The case study demonstrated contemporary risk management strategies in a business environment, which are primarily calibrated to respond to regulators, public pressure, and the necessity for survival. This study gives evidence of what influences the organisation to integrate risk management in developed countries, some of which are regulators, media, and public domain pressure.

According to Chaudhuri, Boer, and Taran (2018), as supply networks become more complex, transnational, and dynamic, the necessity of risk management and supply chain integration is being increasingly recognised in both practice and theory in Asia. As a result, their article focused on the

extent to which a connection between supply chain integration, supply chain risk management, and operational performance, specifically flexibility, exists. The goal of this paper was to look into the effects of internal integration, external integration, and supply chain risk management on manufacturing flexibility, as well as the moderating effect of supply chain risk management on the relationships between internal and external integration and manufacturing flexibility. In the design, strategy, and approach, hierarchical regression was applied. The information was gathered from 343 Asian manufacturing units as part of the International Manufacturing Strategy Survey (IMSS VI).

Internal integration and supply chain risk management had a direct effect on production flexibility, according to the main findings. Supply chain risk management moderates the connection between external integration and flexibility. Because of the limited scope of the study, it was necessary to extrapolate beyond the flexibility performance of discrete manufacturing enterprises in Asia. However, the study had practical implications, highlighting the need for manufacturing firms to implement various supply chain risk management mechanisms to prevent and manage supply chain risks, including those associated with supply chain integration, in order to benefit from external integration and increase flexibility performance. This research also reveals that risk management integration is advanced in developed Asian countries, but the extent of integration varies; those Asian states that incorporate it more have a greater chance of manufacturing flexibility which give them more leverage.

Florio and Leoni (2017) used a number of Italian listed companies to investigate the veracity of the purported positive connection between the level of enterprise risk management and the level of organisational performance. They noted that it is important to go beyond the mere effect of the contribution of the ERM on performance but also to investigate what other adverse effects which they called consequences ERM has on the organisation and widen up the features that make up multiple assessment and multidimensional proxy view of risk management. This would help in measuring the true effect of ERM on an organisation as well as its level of sophistication.

They carefully analysed and investigated ERM integration using their strategy, which would include the recruitment of a chief risk officer (CRO), the formation of an internal control and risk committee (ICR committee), and the regularity with which the ICR committee reported to the board of directors (BoD). They looked into the workings of ERMs in greater depth, focusing on risk assessment frequency, depth, and technique. Finally, they created an overall measure of ERM sophistication that incorporates all of the previously mentioned ERM components.

The results showed that firms varied in their degree of risk management integration in their organisations and that those with a robust and formidable stages of risk management in their organisation submitted a higher performance not only in the financial positioning but also in the market performance and evaluation. Further scrutiny of the findings corroborated ERM never met the expected causality of the increased performance and reduced risk exposures in the short run, but the value seemed to be realised in the long run. There was a reverse causality observed in the long run between the exposures and ERM levels. The study had two major additions to existing literature, first it brought on board the all-round approach to risk management assessment and implementation with a complete metrics of looking at the effects from both positive and negative sides on corporate governance and the major characteristics. It also offered additional evidence that there is a beneficial relationship between the degrees at which ERM is applied and firm performance in Italian companies (Florio & Leoni, 2017).

Nguyen and Vo (2017) intended to figure out if ERM adoption explained the disparities amongst European insurers. The results of a study of 101 European insurance businesses from 2007 to 2013 reveal that when insurers are more leveraged, larger, and focused on their core business, they are more likely to apply ERM. ERM is valued in developed markets by businesses with superior performance. Although there is an obvious distinction between ERM and non-ERM businesses, other characteristics like as firm age, primary business, and foreign activities are not statistically significant. They went on to say that the variables they looked at are solid markers of ERM adoption, even if insurers aren't willing to admit it.

For the interest of this study, the research results gave a rather clearer pattern and determinants of ERM in Insurance in developed countries. Firm size, performance and location of the market is expected to have a significant influence on how much ERM will be integrated into the insurer.

2.4.3 Risk management integration in developing countries

This section discusses the risk management integration in both developing or less developed focusing on the pertinent factors that influence the levels of risk management integration, the methods employed in implementing risk and the effect it has on the organisation performance.

It is necessary to begin with the characteristics of emerging nations before examining individual country results on developing countries. The research project by Phan, Daly and Doan (2018), that also intended to compare developing and developed economies in a specific geographic area to examine the relationship between risks and environmental factors and bank cost efficiency, found that there is a large discrepancy in total assets between established and developing banks.; the mean of developed banks' total assets is nearly double the size of the mean for developing banks. However, when comparing scores between groupings of economies, they discovered an unexpected result: the mean efficiency score of emerging nations was substantially higher than that of industrialised countries, by 20 percent. The average for developing nations was about 70%, compared to only 51% for the rest of the world. They also discovered that three types of risk, credit risk, operation risk, and liquidity risk, had a significant negative impact on bank efficiency. The degree of significance, however, varies between developed and developing countries. Another interesting finding was that the effects of risk on bank cost efficiency varied between emerging and developed countries (Phan et al., 2018).

Nyoni and Mavengwa (2019) carried out an investigation to establish that that are responsible for the levels of risk management in developing countries and how each one of these affect the firm risk responses. The findings indicated that the political systems in form of unstable governments, limited or no skilled manpower and high levels of inflation significantly affect the risk

management in these countries. These factors were found to have a high score on what they called the percentage relative information index which in most cases were very much prevalent in construction projects and processes of developing countries. The recommendation was that companies and all those affected should focus on these identified sources of risk management influence and manage their risk well in developing countries. It was further elaborated that these factors affecting the risk management are relevant to both private and public construction project companies in these countries and the degree of influence is essentially the same and meted out to the same level. The following paragraphs focus on individual countries in the developing countries and their sampled state of risk management.

In Tunisia, Mardessi and Arab (2018) reported the trending pattern at the global level which described as an increasing phenomenon about the Enterprise Risk Management (ERM) which was said to have claimed the most important position and was an increasing topical issue among the different firms across the world. The attention drawn to the ERM by various risk management experts as well as in academic circles was worth noting. The duo lamented that despite the upward trajectory of the subject of ERM at global level especially in developed countries, the degree to which risk management was practiced and adopted in Tunisia was still very limited and there were limited literature arising from the local studies conducted within the country explaining the levels of risk management in the country's context. Hence the determinants of risk management was still unexploited. The study was aimed at achieving two three objectives. The first one offered a metric in the form of an index that would reflect a measure of the extent of ERM adoption in enterprises. The second purpose was to determine the existing level of ERM implementation in Tunisian and other organisations. The previous one attempted to develop a conceptual framework for the elements influencing its execution. Following a review of the literature, they identified seven main characteristics regarded to be key drivers of enterprise-wide risk management deployment. The absence or presence of a Chief Risk Officer, as well as the presence or absence of an assigned internal auditor, were found to be significant factors, primarily responsible for influencing ERM, the category of the industry where a firm is as well as the size of the same firm.

The research approach employed in this study to which needed to establish the determinants of the ERM implementation, started with a structured questionnaire and the survey was administered to 80 firms in the country of Tunisia. The target respondents were the chief risk officers, the internal auditors and wherever applicable, the financial directors. The other sources of data was gathered from secondary sources such as the periodical reports that are submitted annually and from the financial statements notes. An ordinal regression analysis was used to measure the heavy reliance between the two variables (ERM and determinants) in the data analysis (Mardessi & Arab, 2018).

The summary of major results of the research showed that firms in Tunisia had shown an upward response rate to the risk management interests after the revolution context, but the desired level of enterprise risk management integration was still not met and was just in its early stages of development. The pattern was noted to be suggesting a trend where ERM seem to have significantly concentrated and highly developed in financial organisations such as banks and also in those companies of large size from non-financial organisations. The results of the multiple regression analysis revealed a positive relationship between the levels of risk management integration and the presence of the chief risk officer, industry type, and organisational size. Mardessi and Arab (2018).

The results of this study had the originality or value conceptually and empirically. In terms of conceptual value, it proposed an enterprise risk management metric in form of an index measuring the level of ERM stages of implementation. The findings further broadened the range of known factors that impact the extent of ERM adoption in many organisations. And it highlighted that ERM implementation is still not advanced in developing countries.

For purposes of this study, it provides empirical evidence that ERM is concentrated more on financial institutions and non-financial larger firms. There is a need to widen the levels and scope of available literature through the provision of research empirical evidence established both in Tunisia as well as other typical context in developing countries like Zambia.

Fadun and Hood (2016) found that the banking industry's response to the global financial crisis in Nigeria was centred on a number of concerns relating to risk and risk management. They noted that banks were excessively focused on the potential rewards that come with high-hazard investments but paid less attention to the negative consequences that come out of those activities. This was a risk identification problem system in those banks.

The design, approach and methodology of this study led to preliminary identification of factors that could be used to improve risk management in terms of hedging the adverse effects. The study identified insurance policies suitable for managing banking risks and articulated the need for banks to use appropriate insurance policies to manage their risks. Using data collected through a questionnaire from 1050 participants selected through stratified sampling technique; the study looked into how insurance is used in the Nigerian banking system..

According to the study's findings, banks have insurance companies or subsidiary enterprises through which they obtain insurance through insurance brokers/intermediaries. It was also established that banks are required by law to obtain insurance to mitigate risks. According to the findings of the survey, the most important risk management strategy used by Nigerian banks was the central planning of insurance and risk management activities. It was generally deduced that banks should articulate risk management policies to promote organisation-wide effort and effective management of risks across the organisational spectrum.

The researchers recommended this for banks so that they can embark on integrating risk management into banks' philosophy, practices and business plans. They showed that insurance is a risk management tool, suitable for managing banking risks.

For purposes of this study, the research findings summarise the variables that influence risk management in developing countries like Nigeria, whereby risky activities are seen from the reward side overlooking the adverse side of the same investment. Governments have come in to

put mandatory hedging of risk through buying insurance policies and hence risk management integration is slowly becoming matured in the banking industry.

In Brazil, Silva, Silva and Chan (2019) widened the net of investigation and conducted research aimed at studying the relationship that exist among non-financial institutions, between the levels of risk management implementation and realised firm performance.

For the design, methodology and approach they used a questionnaire to collect data from the respondents who were drawn from the managerial positions of non-financial organisations. The companies involved were mostly those listed among the biggest in the country of Brazil and made up a sample size of 500. The analysis of data was performed by running descriptive statistics as well as multiple variable result of interaction and association.

The research results revealed that there are many drivers involved in determining risk management and some of these were cited to be the presence and strength of regulations, the nature and aggressiveness of stakeholders and their demands and finally the presence or absence of competition in the business. The managers spotlight in maximising their utility was rated to be among the practices that are widely used and thought to be more subjective. While the technical methods were seen to be quantitative and secondary in order of importance. The risk were believed to be weighed in the major tasks of the organisation and were self-reconciling. Hence to improve the performance the firm need to have a total maturity in the levels of risk management, and this was found to be having a great link of association that need to be nurtured coupled with the high level of stakeholder involvement.

For the interest of this study, the research findings had relevant implications that help researchers to evaluate the methods that developed in other countries and deduce to the relevant organisations studied to see the relevance and applicability in different contexts. It also serves as a source of solid empirical evidence of the assumptions that is theoretically placed on the relationship between enterprise risk management and firm performance improvement. In common terms, the research

results showed how cardinal the human factor is in the outworking of risk management processes and the importance of external factors on the same process.

Jabbour and Abdel-Kader (2016) explored a variety of institutional factors that influence the adoption and implementation of a new risk management system in insurance organisations; enterprise risk management (ERM). The strategy, technique, and approach used in the study to investigate the adoption of ERM-related activities in 10 major or medium-sized insurance businesses were predicated on an institutional structure based on empirical data across diverse sources. The adoption decision was influenced by extra-organisational pressures imposed on insurance firms by political, social, and economic entities. It was determined that many change agents were involved in the decision to put in a new risk management system as part of the ERM implementation process. Furthermore, the type and degree of normative pressures, forceful, imitation, and ethical, were seen to fluctuate throughout different time intervals associated with the adoption of ERM. Early adopters of ERM were primarily driven by internal strategic goals, but modern adopters are increasingly motivated by coercive and mimetic factors. As a result, evidence of differences across insurance companies was revealed.

Policymakers, regulatory bodies, and innovators should be aware of the results. ERM was viewed not just as a requirement, but also as a benefit to the insurance businesses under consideration. They proposed that regulators and innovators poll key stakeholders in any specialised organisational sector to obtain their perspectives before issuing new mandatory laws or inventing new technologies. They should also look into the ERM experiences of businesses, since this information might be used to build stronger and more informed regulatory ERM frameworks (Jabbour & Abdel-Kader, 2016). They said that using this method would allow for a faster and simpler formulation and execution of the ERM framework, which would otherwise be hampered by enterprises' confusions when coping with complex and changing regulatory and risk requirements.

This study expands the concept of institutional context towards the risk management sector, namely ERM, and discusses how various institutions influence the decision to implement ERM and the risk management principles that are used inside the corporate environment. It examines not just similarities but also differences related with the era when the ERM was implemented.

2.4.4 Risk management integration across various firms and industries

This section covers the areas which consider the various issues involving the level of risk management across various industries around the world. Risk management is a concern for all organisations and therefore an evaluation of the empirical issues surrounding the integration of risk management in several industries has been done.

Vij (2019) went to considerable lengths to explain the future of risk management and enterprise risk management (ERM) in the hotel industry, including how ERM is balanced with the need to innovate and what boards of directors are doing to get more involved in risk monitoring. First and foremost, he stated that implementing ERM entails having a strategic approach to risk and tying it to company objectives and value generation.

For the concept, technique, and strategy, he employed a structured interview survey to collect data from 33 top risk specialists as well as other industry professionals who had a strong understanding of both risk management and ERM. In order to obtain input from risk professionals and other subject matter experts, a structured and semi-structured questionnaire with three sections was delivered individually to 33 respondents.

According to the research, many firms in the industry recognised the importance of developing a culture of risk awareness and incorporating risk planning into business decisions. It was stated that the complexity of modern company required hospitality managers to have higher risk management skill levels than ever before. According to the study, it assisted hotel managers in better understanding the fundamental risks and connecting them to strategy. By putting a greater

emphasis on risk management, ERM creates an atmosphere in which the entire enterprise can sustain the value creation process. As a result, the increasing importance of technology in interactions between people is reshaping the travel ecosystem and transforming the hospitality industry. According to the survey, many Indian companies use traditional risk management techniques in their operations, despite the fact that ERM is their long-term goal. The hotel industry, like other industries, is still dealing with problems, and it is making the transition from traditional risk management to ERM.

For this study, it is established that risk management is still undergoing an evolution in the hospitality industry and the complexity of the business prompts many to join in integrating risk management in their decision. This finding has to be tested outside India.

Ekwall and Lantz (2019) investigated cargo theft risk management and security for a variety of products at various points along the logistics system. The study's design, methodology, and approach were all based on a system-theoretical framework. The analysis was collected from the secondary data and questionnaire findings, so the research method was deductive. The findings were analysed using supply chain risk management (SCRM) theories.

According to the study's findings, the type of product and location of the transportation chain must be investigated because they are critical factors in determining the appropriate level of security. The product category is very important because the overall cargo theft risk is higher. Furthermore, the transportation industry views cargo theft security responses in three ways: requested, needed, and genuine, which vary depending on the product type and position in the transportation chain.

One of the research difficulties was the tiny amount of the data. However, a bigger database constructed according to the worldwide Transported Asset Protection Association (TAPA) relieved this, and it was one structure gathering key databases: Europe, the Arab World, the Americans, and Asia-Pacific, and the data could be considered representative.

The practical implication of this research points to the fact that it is not about the issue of one type of obvious loss, but more is at risk. What easily comes to mind when one hears of transport are losses associated with accidents, but this study explains that the risk in transport is wider and examines such variables as freight transit security from three features of freight transport, theft risk, and the demands of commodities owners.

For the goals of this study, the research documented and emphasised variables responsible for effecting the execution of risk management, such as the fact that risk levels are expected to be established by the kind of industry and security levels that are general in that industry.

Huang, Liu, and Lu (2019) investigated the link between industry risk-taking and risk-taking strategy among born-global firms (BGs), as well as the influence of industry variation on the relationship. The authors employed a fixed-effect model to analyse 26,499 observations on 10,508 BGs in 276 Chinese cities as part of their strategy, methodology, and approach.

The results show that industry risk-taking impacts BG risk-taking strategy, and that industry-related variability moderates such connections. The data demonstrate how BGs develop their risk-taking strategy in light of the risk-nature dilemma, as well as the barriers to firm establishment and quick internationalisation (Huang et al., 2019). For this study, it is established that industry-related risk affects the risk management strategy across all industries. This matches with the speculated conceptual framework on the industry type effect on risk management.

Fadun and Saka (2018) observed that the construction business is related with many hazards that impact construction projects. As a result, they recognised the need of efficiently managing construction project risks. The methodology entailed developing a notion known as key success factors (CSFs) to represent aspects that impact project success and stimulation of project goal attainment. As a result, risk management was assessed in terms of how it contributes to meeting those CSF. They found that the notion of CSFs is not new, particularly in developed-country

building projects, and has been extensively investigated; however, little study has been conducted in developing nations, including Nigeria.

The design, methodology, and strategy of this study used a structured questionnaire to analyse CSFs of building projects and their application in the Nigerian construction sector. Data from participants were collected, and an exploratory factor analysis was performed in three stages, depending on the study's research objectives.

The results of the study suggest that during the first phase of the investigation, construction professionals in Nigeria had a good understanding of CSFs, project management tools, and procedures. In the second phase, eight different types of CSFs for building projects were identified, all of which were identical to those found in Nigerian construction literature. The results of the final phase study, however, revealed that the use of CSFs varies depending on the stage of a construction project. In practice, those in charge of managing construction projects in Nigeria must identify and determine CSFs for all projects during the planning stage to ensure that appropriate actions (risk mitigation measures) are put in place to monitor and manage the project, thereby working to improve the quality of the project.

For purposes of this study, this research helped to appreciate that the levels of the relevance of critical success points will differ from one construction project to the other, furthermore, companies are still under obligation in this industry to take up risk management that will help them take risk measures, manage and monitor them to enhance overall project success.

Musonda, Mwanaumo, and Thwala (2018) sought to identify the risks that are obtained inside the Zambian public sector supply chain of vital pharmaceuticals. This was in relation to the implementation of an effective risk management system, which might result in the reduction and avoidance of pharmaceutical shortages and stock-outs in health care institutions.

The technique entailed doing a literature review through a desktop research of published papers on risk management and supply chain management of vital pharmaceuticals. Data was collected

through conversation and interviews, and then confirmed using a questionnaire survey. Data was analysed, and the findings revealed that inadequate and inconsistent money disbursement, as well as deficient information management systems, were among the top prioritised hazards in the medical sector. The findings highlighted the importance of implementing and maintaining an effective risk management system that can improve supply chain efficiency, potentially leading to increased availability of essential medicines at Zambian public health facilities. The study contributed to the empirical review through the established needs and gap analysis in medical sector risk management.

Priem and Girard (2019) compared the risk management approaches of developed European central counterparties (central banks) and developing countries using the Committee on Payments and Market Infrastructures (CPMI) and the Technical Committee of the International Organisation of Securities Commissions (IOSCO) - CPMI-IOSCO public quantitative disclosure (PQD). The study was created using data from 35 central counterparties (CCPs) from 2015 to 2018. They investigated the risk management techniques of central counterparties in these two economic divisions experimentally. They investigated whether European CCPs are more cautious than their counterparts in overseas countries.

The results indicated that EU central counterparties request from their clearing members starting margins and contributions to the default fund that are of higher quality compared to those requested by non-EU central counterparties. In EU central counterparties, multichannel and individual client segregation are more widespread, suggesting a higher level of asset protection for clearing members. Regarding investment risk management, EU central counterparties prefer to deposit cash at central banks, while non-EU central counterparties rather have cash deposits at commercial banks. European CCPs have almost three times as many liquid resources than non-EU central counterparties and rely more on cash deposited at central banks of issue. Their non-EU peers prefer unsecured cash deposits at commercial banks and unsecured committed lines of credit as liquidity resources. For this study, it is clear from the study that the European CCPs have a more stringent risk management framework than those in third world countries and when it comes to investment

risk management, the European CCPs cash is deposited at central banks, unlike the non-EU CCPs who deposit cash at commercial banks.

Tursoy (2018) summarised the newest Basel Committee changes for controlling banking risks through the risk management process in the banking industry. He went over all of the processes in the process and why banks require the Bank for International Settlements (BIS) application to cover any losses incurred as a result of their operations. As a result of the recent crises, he said, the Basel Committee has devised a new model for addressing liquidity shortages at the bank level in order to improve their status to well-performing levels. The primary conclusions of this study were that, as a monetary authority, supporting and developing Basel applications in the banking sector is the most effective alternative and a crucial requirement for globally serving banks throughout the world to continue their operations in a healthy manner.

For this study, this paper unlocks the variation in the efforts made towards risk management across various industries. While the banking industry has an international committee that oversees the implementation of risk management, other industries do not have. It is up to them to see what has to be done.

2.4.5 Factors influencing the integration of risk management in developing countries

Up to five causes have been mentioned in this section as being responsible for the need for risk management integration in emerging nations. The degree to which these variables have impacted risk management levels varies according to these diverse pressures, and the goal of this study was to determine the amount to which these factors have influenced risk management levels. The elements that impact the integration of risk management are given below, based on the empirical and theoretical review.

a) Enterprise risk management and firm value

The very first compelling reason for risk management integration is value addition. This is one of the most essential reasons for an organisation's risk management system to be implemented and failure to establish the value of RMI means the organisation will not take risk management any seriously. Below are some of the findings linking the RMI to a firm value that motivates or demotivates most organisations.

Many studies and empirical experiences have associated the RMI with firm value. Many have argued that adopting a holistic approach to managing risks through ERM brings a lot of benefits for firms that increase their performance and overall value addition to them. Some of these studies are those which found that ERM can add value to companies by decreasing earnings and stock price volatility (Hoyt & Liebenberg, 2011). RMI was found to be reducing the cost of capital through improved ratings from credit rating agencies (Farrell & Gallagher, 2015). It is argued that RMI will be there to be creating and exploit synergies between different risk management activities through information sharing (Prewett & Terry, 2018). The organisation will also be in a position to evaluate and thoroughly have the trajectory of improving insights into different types of risk (Meulbroek, 2002). Leverage will be available, allowing for more informed capital structure decisions (Graham, Rogers, Journal & Apr 2007) and a sure reduction in direct and indirect costs of financial distress that leads to bankruptcy costs, while increasing improved risk awareness to support operational and strategic decisions, while providing economies of scale (Grace et al., 2015).

The implementation of ERM was found to be leading to significant cost savings by avoiding the duplication of risk management expenditures (Farrell & Gallagher, 2015) and when it comes to decision-making, the RMI comes out on top and was rated to be among the factors involved in improving the decision-making process (Florio & Leoni, 2017). As the company adopts ERM, it gains a greater awareness of the overall risk associated with the many business operations it undertakes, as well as improved insights for resource allocation and capital efficiency (Farrell & Gallagher, 2015). In addition, implementing ERM contributes to the reduction of information asymmetries between shareholders and regulators and investors who are the examples of outsiders

as it allows them to better understand the company's risk exposure (Hoyt & Liebenberg, 2011). But the evaluation has also received opposite feedback, and some have found themselves on the other side of the coin. The demotivating submissions to RMI have come in the results that ERM may bring disadvantages such as discouraging risk-taking to excessively low levels where the value of the return is reduced (Ellul & Yerramilli, 2013). Others have argued that in the essence, its implementation is subject to both financial expenditure and opportunity sacrifice (Farrell & Gallagher, 2015). Overall, the literature supports that ERM programs' benefits will outweigh its costs, assuring their implementation is value-additive for companies.

Maia (2020) discovered the opposite effect. He performed research with the primary purpose of discovering if there is a link between Enterprise Risk Management (ERM), namely its level of implementation, and commercial value. He improved his work through a six-month internship at the Risk and Compliance department of the Portuguese contractor Mota-Engil Group. The study concentrated on the value implications of ERM for firms in the Construction & Engineering industry in particular. According to the key results, there was no evidence of a relationship between ERM and corporate value. Nonetheless, the study was subjected to further tests, which were said to have confirmed the basic findings and proved that there is no indication of a significant effect of ERM engagement on corporate value. However, it was pointed out that ERM seemed to be connected with simply improved accounting performance. Although the researcher agreed that these findings defy standard economic theory, he claimed that they are consistent with earlier studies conducted by other experts. He stated that the study of ERM and its value implications is still in its infancy, and that his research might serve as a starting point for its study in the Construction industry and other Engineering industry.

In a similar thought, Danisman and Demirel (2019) supplemented the findings of no link between risk management and firm value. Taking the context of the country Turkey, they did a paper which examined the impact of three corporate risk management strategies, namely, (1) financial, (2) operational, and (3) enterprise risk management on firm value in the context of an emerging market, Turkey. Using a unique hand-collected sample of non-financial Turkish companies for the

period of years from 2010–2015, they employed a use mixed research methods to gain insights into the complex relationship between risk management and firm value. The quantitative methodology was accompanied by a follow up qualitative study that involved in-depth interviews with selected finance and risk management professionals. Results surprisingly revealed that none of the three risk management strategies increased firm value. They further explored how the different institutional circumstances surrounding firms moderate the relationship between risk management and firm value and derived some policy implications for authorities in emerging markets regarding improving disclosures on risk management and corporate governance. Such findings make most executives reluctant to commit resources to risk management. So, depending on the organisation's grounds of understanding on the role of risk management on the firm value, the pattern, depth and commitment of resources towards risk management will be equally affected by that.

b) Business environmental changes and threats for disruption

The organisations in developing countries are forced to intensify risk management integration for fear of business environment changes and business disruption. To survive risk management has to be taken seriously. Morris (2019) and Kulkarni (2017) confirmed that the volatility of the market and environment where an organisation operates will force an organisation to adjust the risk management framework, the motive and attitude of the managers and redefine the risk management integration levels.

In Nigeria, Fadun (2017) recognised the necessity of business continuity plans for businesses for purposes of survival. He noted that business organisations regardless of size can have their operations disrupted in a major or minor way. But despite the intensity there is needed to properly manage them otherwise they shorten the life of the Organisation.

He proposed that business continuity management (BCM) will be an excellent tool to provide a framework that will help identify and manage events that can disrupt a firm's operations and afford

both survivals and meet its obligations. Since businesses including SMEs operate in a global dynamic and complex business environment that calls for them to embrace business continuity management (BCM).

The methodology, approach and design of his study involved examining the BCM in the context of SMEs. He used the secondary data that consisted of the literature and previous relevant studies used mainly for the study to deduce benefits of BCM to SMEs as well as the challenges of implementation of BCM by SMEs in Sub Saharan countries, using Nigeria as a reference point.

The study advocated for the adoption of BCM by SMEs in Sub Saharan Africa countries to promote proactive response and establish a framework for managing incidents capable of disrupting business to ensure less severely disaster and quick recovery. It emphasised that BCM plays important role in building SMEs resilience to ensure their survivability and profitability. The study in practice implies that the importance and benefits of BCM cannot be overemphasised in SMEs; adoption of BCM effectively reduce SMEs business disruption, and BCM costs are justified by benefits accruable to SMEs in Nigeria.

This study gives empirical evidence to the conceptual framework that specified an independent variable that risk management integration is influenced by environmental changes and threats to business disruption.

c) Risk Management Resource Allocation

Risk management levels are determined by the availability of resources for risk management implementation. Fraser and Simkins (2016) identified several major challenges faced in implementing ERM. Some of these were a lack of embracing risk culture and failure to appreciate risk management as a change agent. These challenges make it difficult for others to allocate scarce resources towards operational risk management issues and hence limiting the levels of risk implementation integration.

Bank losses are increasing, according to Fadun and Oye (2020), as a result of poor operational risk management techniques. The researchers looked at how Nigerian commercial banks' financial health was impacted by their operational risk management techniques. Over a 10-year period, the Linear Multiple Regression Model was used to analyse secondary data from selected commercial banks in Nigeria, with one dependent variable and multiple independent variables. The findings indicated that operational risk management and bank financial performance are linked. Operational risk management techniques that are effective have a positive impact on financial performance of commercial banks. What is noteworthy about the study is that the researchers made strong recommendations to do this. They advised that bank management devote enough resources to understanding operational risk in order to improve bank financial performance and establish sound operational risk management

Even though the study had a restricted scope, it demonstrated that operational risk management is vital to performance in order to prevent losses, and that organisations should devote appropriate resources to operational risk management concerns in order to fully implement it. The integration of risk management is hampered by a lack of resources.

d) Regulators of Risk Management

Borraz et al, (2020) found significant differences in the conception and targeting of risk-based inspections by regulators which had starkly different implications in the EU. The same factors appear to be applicable in developing countries.

Silva, Silva, and Chan (2019) conducted research in Brazil to evaluate the association between the level of Enterprise Risk Management (ERM) and performance improvement in non-financial businesses. The research found that the major drivers of risk management were legislation, stakeholder demands, and company competitiveness, using a sample of 500 of Brazil's largest and greatest enterprises. Hence regulators are the major determinant of the risk management integration levels.

e) Types of industry

The levels of risk management integration were anticipated to be determined by the kind of industry. According to the anticipated conceptual framework on the industry type influence on risk management, it has been established for this study that industry-related risk affects risk management strategy across all industries (Huang et al., 2019). Some industries such as banking have in place strong international committees spearheading the full adoption of risk management such as the Basel Committee (Tursoy, 2018).

2.4.6 Risk Management in Zambia from 1988 – 2022 - Development and Status

This section highlights a brief development of risk management in Zambia up to its current status. Unlike other countries like Nigeria, Uganda and many more, there is very little published about risk management activities in Zambia. As a result, this section is one of the few works in Zambia that explicitly discuss complete risk management.

Risk management in Zambia has been steadily improving, particularly in the financial sector, which accounts for more than 80% of the country's total assets (BOZ stability report, 2020; Phiri-Mambo, 2015). Changes in internal and external corporate environmental aspects, in addition to the compliance obligations from international and local authorities, have an impact on risk management in Zambia, as they do in many other countries. The Bank of Zambia is a member affiliate of many international central bank committees such as Basel and Alliance for Financial

Inclusion (AFI), among others and these usually impose regulations and standards that are passed on to institutions (AFI, 2019; Tursoy, 2018).

Before 1988, risk management was not anywhere present in organisations. But in consequence years, the practice of risk consciousness started developing based on silo system, there was no independent unit for risk, all risk management activities were part of internal audit departments, just like it was at the global level. The concept of risk management was not widely known or spoken off in isolation in Zambian businesses and financial institutions unless industry-specific firms such as the mines. The capital regulation was country-specific, and Zambia was depending on the central bank to set the requirements until Basel I set standards of 8% threshold in 1988. The regulator took time to respond to it until Basel II was initiated in 2004. By then, the country has had lost several banks along the way during the same period of 1988 to 2004 such as the Meridian BIAO bank, Commerce bank and Lima bank among others (Chama, 2019). The major operating cooperatives also had collapsed together with private firms.

The risk management platform in Zambia became formidable in 2008 when the Bank of Zambia circulated the Risk Management Guide to all financial entities such as banks instructing them to establish the Risk Departments headed by senior management staff. While this worked to the good of most organisations, the implementation of Basel II has not been fully realised to reach a fully-fledged ERM mature level in Zambia. The 2018 report by AFI revealed that Zambia lagged on all 3 pillar frameworks of Basel II which were found to be running on a pilot project. Zambia was among the 37% AFI countries rated in the category of partial implementation of Basel II. Some of the cited challenges faced in the implementation of ERM include the mismatch between the international sophisticated regulations and the simple local financial markets, inadequate capacity and resources to implement the Basel II regulations and lack of proper data to complete the set details of the Basel model. It was also noted that the Basel I was still very much relevant to the local market as much of the issues faced by banks was the credit risk which currently registers a high Non-Paying Loans (NPLs). Hence attention towards credit risk is viewed as enough practice

of risk management. Other factors like market and operational risk pillars are secondary (AFI, 2019).

In February 2022, the Bank of Zambia recognised the need to catch up with the global trend on the full implementation of Basel II and III. As discussed in the earlier sections of this report, Zambia has been behind with Basel II where only selected pillars of risk management were compiled to due to the nature of the market structure and capacity challenges. A letter to all Heads of Financial Service providers was issued by the regulator informing them of the activated specific provisions enacted in the Banking and Financial Services Act (cited as BFSA 2017 as amended). The circulation from the Bank of Zambia highlighted that it was in the process of enhancing risk management levels through the issuance of the revised Capital Adequacy Rules to operationalise the capital adequacy requirements under the new BFSA. These rules introduced aspects of Basel III Capital Standards and this would mean the financial institutions (FIs) in the industry would now move from Basel II parallel run for some time by then to Basel III. The regulator in this regard, the Bank of Zambia, had completed the review of Statutory Instrument No 184 of 1995, the Banking and Financial Services (Capital Adequacy) Regulations, 1995. These revised Capital Adequacy Rules would align more closely with the Basel Committee on Banking Supervision's Basel II and III Capital Framework. The regulator hence recognised that it was behind in risk management execution requirements that meet the international standards and hence solicited for comments from the market on the revised draft Capital Adequacy Rules including the accompanying directives by the 25th of March 2022 (BOZ, 2022). The top five rules were:

1. Directives on the classification and computation of credit risk weighted assets (Rule 12)
2. Directives on the classification and computation of market risk weighted assets (Rule 12)
3. Directives on the classification and computation of operational risk -weighted assets (Rule 12)
4. Directives on the internal capital adequacy assessment process directives (ICAAP) (Rule 20)

5. Directives on the public disclosure of capital and risk exposures directives (Rule 21)

This means that by the time this report was written, FIs in the country were still in the process of embracing the full Basel II and III as noted. It is fair though to note that the Central Bank of Zambia has made very good efforts and is very supportive of the implementation of ERM in business organisations, especially financial institutions. For example, it released clear guidelines on how to handle the three pillars of Basel II and chose the simple Internal Capital Adequacy (ICAAP) calculation methods that would suit the local market and scope of an average bank in Zambia. It has also been offering training to financial institutions on risk and capital adequacy calculations, as well as risk-weighted assets (RWAs).

In addition, Zambia is moving towards a mature based risk management practice as supported by zealous associations and auxiliary risk management institutions that offer courses and training in risk management. The formed institutes such as the Institute of Risk Management Zambia (IRMZA) helped in setting up to spearhead the profession of risk management, facilitate CPD, certify and promote risk management in the country. Many universities are offering risk management as a course to prepare individuals in the corporate world to apply risk management.

When it comes to individual financial institutions and other businesses in Zambia, the recognition of risk management as one major unit was assessed to be at the elementary stage and it is yet to be embedded in organisational culture. In January 2020, the author performed a random inquiry on 30 Zambian organisations involving various industries and firm sizes and asked how much they appreciate risk management in their institution. It turned out that over 66% cited that they do not appreciate the role risk departments do in the organisation. They mentioned that it is a department that is a mere cost centre with no clear quantitative targets. Going by induction, it is evident that most organisations have implanted risk management units merely as an obligation to the regulators dictate. The major goal of this research was to conduct a thorough analysis of the extent to which risk management is used in Zambian financial institutions such as banks and insurance firms. Most of the works done on risk management in Zambia are those on agriculture and a handful mostly

on financial institutions and construction companies, hence the paragraphs to follow discuss a few findings on some of these research works.

One of the most elaborative risk management profiles on the agricultural environment was that done by Braimoh et al., (2018). He identified and characterised agricultural risk in terms of the intensity and frequency of unfavourable consequences, as well as their influence on food security, rural livelihoods, and the overall economy. They went on to say that the hazards differed slightly between agricultural subsectors and between Zambian regions. Dry spell, flooding, and price fluctuations appear to be the three most serious threats to crop agriculture in the United States. The two most important dangers to cattle are drought and outbreaks of animal sickness. Risk management approaches tailored to a country's agricultural business can successfully limit exposure to the consequences of these and other hazards. Agricultural risk in Zambia, as in other countries, may be classified into three types: production, market, and a supportive atmosphere (Braimoh, 2018).

Chifwelu (2020) conducted a research to determine the influence of risk management on the financial performance of Zambian insurance companies: She employed a mixed-method approach to gather data on a sample size of 45 insurance company employees, utilising both a questionnaire and interviews to come up with both quantitative and qualitative data approaches. The interviews were performed with important informants from several departments, including managers and other employees. Individual content examination and analysis were employed to analyse qualitative data, while quantitative data was analysed using SPSS. The study also used regression analysis, which demonstrated that the majority of Zambian insurance companies have used risk management approaches in their operations, which has had a substantial influence on their financial performance. Risk identification was the most critical component in determining financial performance, followed by risk reduction, risk assessment plan implementation and supervision, and vulnerability analysis and measurement. He came to the conclusion that risk management methods adoption and insurance company financial performance in Zambia had a good link. To get the most out of their risk management efforts, the report suggests that insurance

businesses in Zambia use a diversified approach to risk management. Furthermore, Zambian insurance firms should embrace Enterprise Risk Management (ERM), which includes various insurance risk quantification methodologies, in order to match current worldwide best practices. Risk management and financial success have a significant link, according to the study, but it did not investigate how far RM had been applied or when the consequences would likely begin to appear. And this research follows in the footsteps of the previous research to determine the risk management levels involved.

Ngala (2018) investigated the degrees of poor and insufficient risk management in building projects. The major goal was not to suggest a completely new risk management process, but to try to combine existing procedures in such a manner that it could be used by modern businesses in Zambia who deal with the planning and execution of building projects. The goal was to uncover the primary reasons for a construction project's failure owing to a lack of risk management in projects so that stakeholders may understand the importance of risk management and, as a result, leave a legacy where risk management is treated more seriously and professionally. He stated that the advantages of risk management are not limited to large or dangerous ventures. He indicated that all that is required is a procedure that is formalised in these circumstances and is applicable to all scales of project and procurement activity. From strategy reviews to the supply, operation, maintenance, and disposal of specific items, buildings, or assets, the risk management system must be applicable at all stages of the project cycle. A robust risk management system should be used for a variety of purposes, including the evaluation of alternative activities for budgets and business plans, as well as the control of project and program cost overruns and delays. By establishing a consistent and comprehensive procedure that supports decision-making, risk management may also bring advantages in terms of improved responsibility and decision-making reasoning. After reviewing the numerous secondary data from previous studies, findings, and comprehensive bibliographies, he summarised key outcomes and produced a checklist for all those engaged in building project catastrophes.

Masheta (2019) did a study in Zambia with the goal of determining whether there is a link between good credit risk management and the profitability of microfinance firms. The study also wanted to see if the link remained consistent or fluctuated when the explanatory factors were changed. According to the study model, the assumptions were that the return on equity (ROE) and the return on assets (ROA) was to be defined as substitutes of profitability while the non-performing loans (NPL) and the credit at risk (CAR) was a term used to describe credit risk management alternatives. The researcher gathered data from the central bank (BOZ) during a five-year period, from 2010 to 2015, and put it through empirical testing to answer the study issue. Other statistical tests were run to determine whether or not the link was significant. Other statistical tests were run to see if the association was stable or not. Credit risk management, according to the data, has a beneficial impact on microfinance organisation profitability. It was also discovered that, when comparing the two credit risk management proxies, NPLS had a considerable influence on both ROE and ROA, but CAR had no effect on either ROE or ROA. However, between 2010 and 2015, the links between all of the proxies were shown to be unstable, with a shifting pattern..

These reviews indicate that much effort is on finding the relationship between Zambian risk management methods and the observed performance, either in agriculture and or financial institutions. The extent to which these risk management strategies have been applied was to be determined, and this study's focus, as well as the primary variables in enterprise risk management integration. As a result, the next part concentrates on the knowledge gaps that exist between what is now known and what needs to be understood in order to close the gap.

2.5 Knowledge gap

This section focuses on the gaps in the evaluated literature that must be filled. The section on knowledge gaps focuses on missing pieces of information or features in the study literature that have not yet been studied or are under-explored. Other areas might include a population or sample (size, kind, location, etc.), study technique, data collecting and/or analysis, or other research factors or circumstances.

2.5.1 Integration of Risk management in business Organisations Knowledge gap

The study monitored different business organisations involved in different economic activities and checked on various empirical findings on risk management integration affects businesses for the corporate, SMEs and family setups. The missing pieces in each of the findings are highlighted in this section and these knowledge gaps are marked for fill up in this study up to the extent feasible.

The mediating effect impact of operational risk management integration (RMI) on the relationship between customer logistics performance (LP) and supply chain cost performance (CP) for corporate firm performance, as well as the relationship between LP and supply chain service performance (SP) for corporate firm performance, has now been established and widely recognised (FP). The results demonstrated that LP is favourably associated to risk management integration, cost performance, and service performance for both certified and non-certified organisations, whereas SP and CP are positively related to FP. For certified organisations, RMI somewhat mediates the relationship between LP and both CP and SP, but not for non-certified firms (Dellana, Kros, Falasca & Rowe, 2019).

However, the missing piece in this knowledge pack is the extent to which RMI starts to make a significant impact on the CP, LP and FP. there is a knowledge gap as to what extent was the RMI applied to those successful firms and how little was the RMI were the firms that didn't succeed in increasing LP, FP, and SP.

The purpose of this research was to fill in the gaps by addressing the question, "To what degree have financial organisations implemented the RMI, or how much risk integration is sufficient?" The goal of this research effort is to bridge that knowledge gap. The role of competitive advantage in mediating the relationship between enterprise risk management practices and SME performance, as well as the role of financial literacy in moderating the relationship between enterprise risk management practices and competitive advantage, has now been experimentally proven and understood (Yang, Ishtiaq & Anwar, 2018).

Enterprise risk management approaches, according to such study, have a significant influence on competitive advantage and SME performance. It was also demonstrated that competitive advantage moderates the link between enterprise risk management practices and SME performance, whereas financial literacy moderates the relationship between enterprise risk management practices and competitive edge.

There is still a considerable gap in understanding as to how much risk management integration and risk management procedures were used in the execution of the competitive advantage. To achieve a competitive edge and higher performance, the authors argue that businesses should embrace formal enterprise risk management processes. They said that in order to acquire a competitive advantage in the market, top managers must have sufficient financial education to effectively implement risk management techniques. The knowledge of what to do about risk management is well established, but the understanding of precisely what comprises formal business risk management and what risk management practices exist is lacking. The purpose of this research was to close the information gap.

Despite the availability of enterprise risk management (ERM) literature that is remarkably quiet on ERM adoption, Hiebl, Duller, and Neubauer (2019) empirically shown that family enterprises are the most frequent form of organisation in the world. It has been established that family firms have characteristics that are likely to influence ERM adoption; however, because they frequently have lower concentrations of asymmetry, they may be less likely to invest in mechanisms to control such problems, according to an Austrian and German study, and family firms, particularly those with a family CEO, have a lower adoption of ERM. The findings also suggest that future ERM study should look at, or at least account for, household impact.

While it is clear that there is a low pattern of ERM adoption in the family business, it is not clear exactly what levels constitute a low adoption. Is it completely omitted, or is it there but taken casually? And how low is too low? The purpose of this research was to see how much low-risk

management integration there was in a range of companies and industries, including family enterprises. It is one of the goals.

2.5.2 Comparison of risk integration between developed and developing countries

Empirical evidence suggests that industrialized countries bow to media, public, and government demands to take risk management seriously and implement preventive measures. Other businesses, such as oil and gas corporations, are concerned about the media and the public, so they limit their carbon footprint and allow technology advancements to play a proactive role in ensuring efficiency and sustainability (Jagoda & Wojcik, 2019). The Canadian empirical case study highlighted risk mitigation measures utilized in the workplace, revealing that organizations were adjusted to respond to regulators, public pressure, and the necessity for survival. Furthermore, Chaudhuri, Boer, and Taran (2018) performed an experiment and discovered that, as supply networks become more complex, global, and dynamic, the necessity of risk management and chain supply process integration is becoming more generally recognized in practice and theory. This study evaluated the amount of risk management integration in advanced Asian nations. Countries with greater integration are more likely to have industrial flexibility. In Italy, empirical research found that the degrees of risk management integration in organizations varied, and that those with greater levels of ERM implementation outperformed those with lower levels of ERM implementation in terms of financial performance and market valuation (Florio & Leoni, 2017).

Risk management integration in developed countries has been empirically proved to be caused by, among other things, a response to regulators, public pressure, the necessity for survival, the complexity of supply networks, and market dynamics. It has also been empirically demonstrated that enterprises in industrialized nations have varied degrees of risk management integration. However, it is still unknown what precise degrees of risk management integration exist in industrialized nations. It is necessary to narrow the knowledge gap about discrepancies in risk management adoption between developed and developing countries. Priem and Girard (2019) contrasted the risk management approaches of established European central counterparties (central banks) and underdeveloped nations. They investigated whether European CCPs are more cautious

than their counterparts in overseas countries. While the results indicated that European CCPs have a more stringent risk management framework than those in third-world countries, and that when it comes to investment risk management, European CCPs deposit cash at central banks rather than commercial banks, this aspect does not include the ERM in individual firms. Rather, it contrasts the main counterparties. There is still a knowledge gap between the risk management integration system and the extent in enterprises of individual firms in developed and emerging countries. The empirical data from emerging nations revealed virtually comparable patterns of risk management integration and the same factors impacting risk management adoption. Morris (2019) and Kulkarni (2017) stated that the volatility of the market and environment in which an organization works forces the risk management framework to be adjusted. In a similar vein, Fadun (2017) acknowledged the need of business continuity strategies for the survival of enterprises. As a result, the distinction between the two economies in terms of risk management integration has received little attention.

2.5.3 Extent of risk management integration across industries and firms

Javani and Rwelamila(2016) looked into the recognition, implementation, and understanding (status) of risk management strategies in information technology (IT) projects in South Africa, particularly in the public sector . A quantitative technique was used in the form of a survey, with data collected using a questionnaire. The outcomes of the study are compared to risk management theory and practice before any conclusions regarding risk management in IT projects are drawn. According to the statistics, risk management is currently being used in IT projects, and project clients are aware of it. Despite the fact that risk management has been examined by a number of authors, the author claims that nothing is known about the condition of risk management in the South African public sector. Despite the fact that this study gave insight into the use of risk management in IT projects and how risk is perceived by IT project customers, it did not address the extent to which risk has been integrated into the industry.

The author nonetheless urged project managers to create risk management data warehouses and tools that are available for IT operations, that go along with them, in order to facilitate information exchange and thereby boost the odds of IT project success. The report also emphasises how knowledge exchange and constant project communication may help project clients and project teams build stronger relationships.

O'Rourke (2018) investigated the knowledge gap of risk management in the technology industry. In the first instance, he observed that as the increase in the absorption of technological advancements brings along with it emerging risks that affect the strategies of many firms operations to the point where risk experts fail to move with the pace or cope. He cited the 15th annual excellence in risk management survey report where two third (59%) of the participants reported that their companies were actively embracing the new information and technologies and close to half (47%) have moved to the advanced stages such as Artificial Intelligence, and one third (24%) overlap admitted that they fully explore the technology of Blockchain. However, a tune of 14% only confidently submitted that they are in possession of risk frameworks that are capable of handling various ICT related risks while almost half admitted that they were not clear whether the process is in place or not.

The author recognised that there is need for risk experts to muster up and embrace a wider understanding of what the emerging risks arising from the new ICT affect their firms and how they can be managed so that they define what digital platform is appropriate for them. Many appreciated that of course the technology is helping out in so many ways such increases supply chain process in goods delivery, the human replacement of tasks through automation. Less is explored through such technology like the initiates of doing business differently or improving the face to face interaction with the customer. There is no need to for the managers to be all ICT gurus, but it was recommended that are forced to always seek new developments in technology that will help them assess the impact on their companies but may easily overlook the risk emerging with it.

This and other similar reports (Moro, Byrne, Kennedy, Campbell & Tizard, 2018) that border on technology there is a clear evidence that the need for risk management enhancement is in a

desperate situation due to mega changes. There is still a wider gap on exactly how much risk management is sufficient to suffice the mitigations. As can be seen, only 14% could cite with certainty that they have a full implementation of the risk management. The research findings here endeavoured to clearly calibrate the depth of risk management in the industries including ICT based firms.

Tursoy (2018) summarised the most recent Basel Committee changes for controlling banking risks through the risk management process in the banking industry. He concluded that, as a result of the recent crises, the Basel Committee has devised a new model for addressing liquidity shortages at the bank level, allowing them to return to well-performing levels. While the paper said that as a monetary authority, supporting and developing Basel applications in the banking industry is the most effective choice and is a fundamental requirement for globally serving banks throughout the world to continue their operations in a healthy manner. The paper unlocks the variation in the efforts made towards risk management across financial industries. But there is a missing explanation on how far banks and other business organisations have gone in meeting the standards of the Basel accord.

Jabbour and Abdel-Kader (2016) explored the forces driving the adoption of enterprise risk management in insurance businesses (ERM). As part of the ERM implementation process, it was discovered that a large number of significant change agents were given an option to set up a new mitigation plan. Different types and strengths of institutional factors, such as coercive, imitation, and prescriptive, were found in relation to the adoption of ERM at different time intervals. Early adopters were primarily driven by internal strategic goals, whereas late adopters were more prompted by coercive and mimetic factors.. As a result, evidence of variance amongst insurance firms was discovered.

The paper highlighted the divergence in the ERM adoption among insurance companies, this was good, and there is a need to bridge the gap in finding out how much ERM was adopted by these

insurance companies. This study aimed to fill up the gap on the levels of risk management adoption in these insurance companies.

2.5.4 Extent of Risk management integration in Zambia

The risk management platform in Zambia was first formalised in 2008, when the Central Bank of Zambia issued the Risk Management Guide to all entities in the entire industry of financial institutions, requiring them to create Risk Departments. The country is still with Basel II partially implemented citing several challenges. What is true is that Zambia has not reached a fully-fledged ERM as at end of 2019 (AFI, 2019). By 2018 Zambia lagged on all 3 pillar frameworks of Basel II which were found to be running on a pilot project, being among the 37% AFI countries rated in the category of partial implementation of Basel II.

In addition, the year 2005 saw a significant response from the Government of the Republic of Zambia (GRZ) when it launched the National Disaster Policy (NDP) with a primary view of having dedicated and focused attention intended to address the methods Zambia would manage emerging risks, hazards, disasters, vulnerable populations, and the environment at risk. The unit also provided a framework for disaster management strategies in the country which covered such issues as capacity building in terms of both financial and human resources for disaster preparedness, the concept of early warning strategies, speed for Response, building capacity for disaster prevention, capacity for disaster mitigation, for rehabilitation, recovery, and restoration, as well as building capacity for coordinating disaster risk reduction. This unit was defined to be based on matters that are being enhanced through partnerships with key stakeholders directly responsible for the contribution towards the significant reduction in the impact of disasters (Mwila, 2019; DMMU, 2011).

From this status, it has been observed that Zambia has a regulatory system reinforcing risk management practices primarily for financial institutions by the Bank of Zambia as well as the disaster management unit championed by the government of the Republic of Zambia. Mwila (2019) reported several issues surrounding risk management under the disaster management unit.

In his research problem, he highlighted several strategies for disaster risk management in Zambia which included the capacity building in the areas of vulnerability cover and risk assessment. There was also a replanning of contingency measures at all levels of the governance starting from the central levels to provincial and down to districts. In addition, there was a public sensitisation and education to improve the width of the awareness as well as information systems across the said levels. The system in place also puts in place legislative reform that aims at increasing the legal powers during and as needs arise such as the issuance of fire certificates and council certificates to Marketeers and other business premises. The country is susceptible to fires and floods and on record, Zambia has continued to experience major fire disasters especially in public markets (examples are COMESA market, City Market and Chisokone Markets in the Copperbelt).

While both central banks and individual enterprises, particularly financial institutions, are making apparent efforts, the present amount of execution of risk management is unknown. The purpose of this study was to address a knowledge vacuum by analysing the degree of risk management integration levels in Zambia.

2.5.5 Factors influencing the integration of risk management in developing countries

This section takes a recap of the conceptualised factors that were found to be influencing the integration of risk management in developing countries and identify the missing pieces of information or the knowledge gap.

The Type of Industry

The kind of industry was thought to be amongst the most powerful elements influencing the levels of risk management integration in any particular organisation. Some industries have a higher inherent risk than others, and this will have a natural cause for implementing more or less of the risk management systems. This notion comes from the belief that total risk is made up of two components, systematic and unsystematic risk. Unsystematic risk is internal and can be managed by taking diversification measures while systematic risk is a part of the risk that cannot be deleted

by diversification because it comes from the industry externally (Ghalibaf & Salmalian, 2019). This component discusses why the kind of industry plays a vital part in risk management, and it is referred to as industry or market risk.

(a) What is known

What is certain is that some industries have been identified to have a higher inherent risk. Examples of such industries or firms like banking, finance, mining, oil refinery and IT are believed to be riskier relative to others partly because they are informationally opaque as compared to other industries and they adopt more complicated production methods, Organisation structures and incur more intensive research and development costs which may cost more than the end benefits (Chukwunulu, Ezeabasili, & Igbodika, 2019; Wagdi, & Tarek, 2019). It is known for sure that all these cited firms have an intrinsic risk in themselves which makes their sector a very risky industry, the risks in the banking sector cannot be eliminated or avoided (Chukwunulu et al, 2019).

(b) Knowledge gap

These recent confirmations about industry risk effects on Organisation levels of integration still have old unresolved notions. Over three decades ago According to Miller (1993), neither nation nor industry impacts have considerable explanatory power across the majority of input, market demand, and competition uncertainty (risk). He contended that, in any event, no matter how precise an industry grouping, it would fail to give considerable explanatory power since the uncertainties are unique (internal) to the environmental circumstances and specific characteristics of particular enterprises. The task of this study was to give further evidence on the extent to which industry affects the level of risk management integration in an Organisation. The study aimed at finding out and taking a position on the effects the industry has on the context of risk management integration.

Managers' motives

The knowledge about how the motive of the manager affects the levels of risk management integration is well known. Theories are in place to qualify the assertion such as agency information theory where agents, who are identified as managers are believed to have interests and behavioural biases that conflict with the best interests of the principal, who are the shareholders (Jankensgård, 2019).

(a) What is known

Depending on what interests the manager, they can steer an Organisation towards extensive integration of risk management or completely omit it if the outcome is believed to hold interests best suit them. Even if the board is willing to have oversight, the right information may be not given to them to take up a correct approach. So, if the board wishes to adopt ERM, they should first know managers motives and identify certain behaviours and incentives appearing to be of influence to risk management practices in the firm (Lynch, 2008). In the study of investment decisions under risk, Hermeindito (2020) interestingly showed that the influence of investment motives and investment benefits on mutual fund investment performance is sensitive to different types of investors.

(b) Knowledge gap

The missing piece of knowledge here is that how far the motive of the manager has influenced the risk management integration in various business firms. The study aimed at verifying the extent of ERM adoption and provide viable evidence of the manager's motive on risk management adoption.

Manager's Attitudes

When a manager's attitude is used, it carries the meaning of the risk attitude, it refers to the way a manager views the benefits of taking a risk or avoiding it. This attitude variable does not necessarily serve selfish interests, managers, on the other hand, may choose to behave in the company's and shareholders' best interests by taking or avoiding risk.

(a) What is known

Three attitudes towards risk can be held by the managers, risk-averse, risk seeker and risk-neutral (Iswadi, Saputra, Haykal & Albra, 2019; Holden, Hall & Mailroom, 2010). Risk aversion attitude is where managers associate risk to negative outcomes and therefore will not take risk management lightly. They will do everything to ensure no risk projects are undertaken. These are likely to adopt a more robust ERM than other categories, as the risk is perceived to be bad. The risk-loving or risk seekers are such individuals who consider the risk to be good and will look for it to maximise gain. For such ones, the expectation is that they have to undertake very little effort to manage risks. The risk-neutral comprises of individuals who are indifferent to risk, and they do not get affected or moved by risk issues. All that matters to them is a return on investments whether it is coming at a higher risk or not. It is expected that these individuals take risk management casually and out of mere duty (Iswadi et al, 2019; Holden et al, 2010; Guiso & Paiella, 2004).

(b) Knowledge gap

The attitude of the manager is to be checked and assessed if they are significant enough to greatly determine the risk management integration in the organisation.

Board insight

The board's function is to be in charge of risk management supervision. However, the board relies on the reporters for the proper information in the right amount to decide the extent to which risk management may be adopted in an organisation.

(a) What is known

The Board of directors needs to know and approve the risk tolerance and appetite levels for the Organisation. They can only support this kind of risk management when they are well enlightened so that they assess the criticality of the exposures, and the enlightened board clears the visibility

of risk management at that level (Hubbard, 2020). He also revealed that, according to the Aon analysis, the board of directors of around 88 percent of surveyed enterprises were reviewing risk management concerns, and that 78 percent have implemented risk supervision rules. Bank boards and shareholders, according to Fadun (2017), should closely monitor what management does in the course of managing the bank and validate that they are all acting in the interests of good corporate governance standards as they improve the competitive ability of Nigerian banks.

(b) Knowledge gap

The study fills the gap of how far this variable has influenced the risk management integration in the context of Zambia and other developing countries.

The best fit between internal and external circumstances: The need for survival caused by the changes in the environment calls for the company's aligning efforts to suit both the internal and external demands of risk exposures.

(a) What is known

The concept is derived from the contingency theory that has a core assumption that Organisations are open systems exposed to external and internal interacting factors (Morris, 2019). The ever-changing environment not only from one organisation to the other but also from one period of time to the other. Each situation calls for its way of managing the risks and there is no one best way of mitigating the presented risks. Hence an Organisation needs to achieve a good fit between internal systems and the external environment (Kulkarni, 2017). Since no situation can be uniform from one organisation to another and from time to time, there will be always a variation in the levels of risk integration on the Organisations.

(b) Knowledge gap

To what extent has the contingency reasons led to the integration of risk management in an organisation is a gap to be filled up by this study, at least to a minimum clue.

Firm size

It is believed that the scale of the business has a contagious influence on the requirement for risk management. The extent to which risk management is integrated within an organisation is thought to be affected by its size.

(a) What is known

It is thought that the greater the company's business size, the greater the systemic risk exposure. Benlemlih, Shaukat, Qiu and Trojanowski (2018) showed that a firm's size is directly (positively) proportional to systematic risk and inversely (negatively) related to total and idiosyncratic risks. During the 2007 global financial crisis, large banks had significantly higher systemic risk than smaller banks (Pais & Stork, 2013). The bigger size is also subjected to more risk procedures and regulatory directives than smaller firms. Hence firm size is a demographic independent variable that is predicted to have an impact on risk management integration levels as the predictor variables.

(b) Knowledge gap

In Zambia, the extent of risk management adoption that is accounted for by the firm size is yet to be exploited. The extent to which existing firms are affected by the size to implement risk management was established by this study.

Risk Management Structure

The structure in place is in itself a good condition to facilitate the more stringent level of risk management implementation. The presence of risk management structure in an Organisation especially that directed by the regulators will influence many factors such as board insight, managers motive and managers' attitude.

(a) What is known

The functional risk department structure is expected to be active in the process of designing, reporting, and implementing the ERM (Laisasikorn & Rompho, 2019). The presence of the structure will also compel the reporting of sufficient information to the board because the risk department cannot afford to be idle. The managers with risk-neutral and risk-seeking will be challenged by the staff from the risk department to take risk management seriously. The risk structure is one of the three principal dimensions of the ERM in addition to the process and governance and it influences the performance of the Organisation (Girangwa, Rono, & Mose, 2020; Lai & Samad, 2010).

(b) Knowledge gap

The knowledge gap on the extent has the risk structures affected the implementation of risk management in Zambia and developing countries is to be filled framework.

Regulators of Risk Management

The regulators mostly the central bank and financial monitors are concerned about the large firm size and the type and hence these factors are highly related to regulatory obligations.

(a) What is known

Large companies and specifically financial institutions are subjected to the central bank or financial institutional regulators that give out guidelines on risk management. Bank of Zambia adopted the Basel II accord of 2004 and in the year 2008 and directed all commercial banks and non-bank financial institutions to observe risk management guidelines including the forming of the risk management. From there on, such Organisations were subjected to compliance checks in the area of risk management. What has come out as a major factor in this variable is that the degree

and method of assessments vary from one country to the other (Borraz et al, 2020) found diverse views in both the conception and manager of focus in the risk-based approach of regulators inspection which resulted in diverse implications on the European Union region. These variations in risk based inspection on implementation of risk were linked to differences in the inspection styles that were held as a tradition for a long period of time. Some if not moist of these were set as mandatory requirements hard to change.

(b) Knowledge gap

The force exerted by the regulator is known but the degree upon which it affects the full implementation of the risk management and integration is yet to be established in this study.

Risk Management Tools

Risk management tools are expected to help the organisation to find meaning and value in the risk management process because the available tools are expected to help measure and interpret the risk levels.

(a) What is known

Risk management tools are schemes or workflows that are put in place to detect, measure, assess, and report on the various risks that affect an organisation, such as value - at - risk (VaR), the use of stress testing results, the use of credit risk mitigation methods, and operational risk management tools (Ostrom & Wilhelmsen, 2019; Boubaker, Buchanan & Nguyen, 2016). The management tools will be linked to the best-fit variables and will have an impact dependent on the amount to which risk management is applied in the financial institution..

(b) Knowledge Gap

The effect of risk management tools is known, but the extent to which they influence the implementation of risk management or the effect of lack of them on an Organisation is to be established in this study.

Risk Management Resource Allocation

To effectively implement all the risk management tools, resources are needed to be allocated. The full risk management implementation strategy as well as all mitigation measures will require resources to be in place.

(a) What is known

When evaluating the challenges of implementing risk management in a typical organisation, Fraser and Simkins (2016) identified 8 major challenges in implementing ERM and among them was the difficulty in justifying expense on risk management issues and prioritisation of resources towards risk implementation suffers. According to Fadun and Oye (2020), there is an upsurge in losses borne by banks as a result of insufficient operational risk management strategies. They advised that bank management devote enough resources to operational risk management in order to achieve solid operational risk management and enhanced financial performance.

(b) Knowledge gap

The study filled up the gap of how much resources influence the implementation of risk management in Zambia and other developing countries. The level of risk management in the organisation has to be measured in terms of how much budget is allocated towards the implementation of risk management in the organisation.

2.6 Summary of the Chapter

This section covered the material on the literature that highlights the many efforts of work done on the integration of risk management into financial and insurance institutions, as well as other

businesses in both developed and developing nations. Although the focus is on Zambia, the literature review expanded its horizon on the general risk management integration trends at the global level. The probable variables that affect the risk management integration phenomenon were designed and summarised in the conceptual framework.

In the risk management integration levels, the conceptual framework explored the factors that interrelate to explain the cause and effect. The level of risk management integration in the Organisation of developing nations, with a focus on Zambia, was anticipated to be influenced by explanatory factors discovered in the literature. The chapter provided the framework conceptualising over ten variables that were grouped into three categories, the dependent variable, the independent variables and the confound variables. The effort was made to define all terms that carry a jargon and technical meaning while trying to provide the contextual ideas in the chapter. Some of the terms defined included the meaning of risk and the definition of variables in the conceptual framework. In the definitions, it was established that while the risk is defined in so many ways, the study adopted the definition of risk as to the uncertainty of events that have a bearing on the realisation of firm objectives. This connotation implies that risks will be understood to include any circumstances or situations, whether existence or occurrence of which under reasonable anticipation, will result in a significant impact on the implementation of the objectives Srinivas (2019).

Of significance, the chapter highlighted the three components of risks that need to be independently and seriously considered in determining any risk management system. These components are the event also called values, the likelihood also called probability and impact known as the hazard (Kırılmaz & Erol, 2017; Abd El-Karim, Mosa El Nawawy & Abdel-Alim, 2017). When you plot the measures of impact against the likelihood of a given event you arrive at the Organisation risk heat map. This heat map shows the degrees of severity of an event that occurred.

The risk management and the levels of its integration in the organisation were highlighted by the concept of risk management integration. Integration of risk management is the extent to which a risk management system has been embedded in the organisations. Understanding of the organisation, risk-based thinking, leadership and commitment, process approach, and risk structure are some of the vectors that are implicated and evoked in risk integration (Barafort, Mesquida & Mas, 2017).

In terms of theoretical framework, the chapter applied theoretical concepts to explain the cause for varying degrees of risk management implementation in organisations. In particular, two theories were adopted that to highlight the observed variation in the integration of risk management in an organisation. These were (i) the Agency vs Information Problem Theory and (ii) the Contingency Theory. The agency theory which was initially proposed by Smith and Stulz (1985), was recently improved by combining agency with information problem by Jankensgård (2019). The theory argues that the nature and extent of risk management in any organisation will be determined by the degree of two major problems that border on governance and aggregation. The Governance issue is also known as the corporate risk management agency dilemma, in which agents (clearly identifiable as managers of the organisation managing the resources) have motivations and behavioural biases that collide with the best interests of the major owners (who are identified as the shareholders or providers of capital funding). The second issue, the aggregation issue, is known as the corporate risk management information problem, and it is the problem of collecting risk information centrally in the organisation to support decision-making regarding the firm's total risk-return profile, and thus some risks are over-managed while others are under-managed. According to Jankensgrd (2019), managers are inclined to undermanage low probability-high impact risks while overmanaging high probability-high salience issues. These would lower the predicted mean of future cash flows rather than the present cash flow. The issue of risk under- and over-management is driven not only by behavioural biases, but also by particular incentive systems that are widely used in practice. The idea demonstrates that managers may use prejudice in a variety

of ways. They may try to escape discovery by engaging in self-dealing, maximising assets under control, and pursuing pet projects that increase their utility in general.

According to the contingency theory, organisations are open systems with no one ideal way of organising; therefore, organisations must establish a good match between internal operations and the external world (Kulkarni, 2017). Silva and Fernandes (2019) have interpreted the contingency theory for risk management as an interrelationship of three factors. The best fit here will be a mix of organisation structure, strategy, and risk management processes. The strategy is a predictor, and the structure will be adjusted to meet the demands of the strategy and then an appropriate risk management system will be aligned to reduce issues of bureaucracy in the structure. The implication of the contingency theory to the integration of risk management is that it helps to explain the variation in the integration of the ERM in organisations as the laws, organisation IT platform and size vary. The structure, strategy and process will also vary from one organisation to the other. The extent of variation in these variables leads to the equivalent variations in the degree of ERM integration. Smaller companies are less likely to embed risk management because they may not be subjected to government laws and may have small IT platforms.

The chapter accommodated the empirical framework section that focused on the empirical research findings based on observed, measured phenomena and derived knowledge from experience rather than from theory or belief. The primary interest in this section was to check the empirical results from articles, books, or reports that used various research methodologies. This helped our study to assess what can be recreated, enhanced, or modified from those studies as well as what can be tested from the results. The specific research questions answered, the definition of the population, behavior, or phenomenon being studied, and a description of the process used to study the population, behavior, or phenomenon, selection criteria, controls, testing instruments, and the research findings were all key characteristics looked for at a minimum. Among the findings were that many organisations across various sectors recognised the necessity of developing a culture of risk awareness and implementing risk planning into business decisions. For example, in the hotel industry, it was noticed that the complexity of modern business dictated that managers in the

hospitality sector have more risk management skill levels than ever before. The implications aided hotel executives in better understanding the underlying risks and connecting them to strategy. ERM was discovered to provide an environment in which the entire organisation can promote the value creation process while concentrating more on risk management. As a result, the growing relevance of technology in conjunction with human interactions is restructuring the travel ecosystem and changing the hospitality industry. Many Indian firms, according to the survey, employ a traditional risk management technique in their operations, although ERM is their longer term goal. The hotel business, like other industries, is still facing issues, and it is transitioning from a traditional risk management paradigm to ERM (Vij, 2019).

Factors influencing the integration of risk management in developing countries include but are not limited to business environment changes and threats for disruption volatility of the market and environment. An organisation exposure to threats will force an organisation to adjust the risk management framework, the motive and attitude of the managers and redefine the risk management integration levels with business continuity (Morris, 2019; Kulkarni, 2017; Fadun, 2017). The other factor is the risk management resource allocation where the availability of resources towards the implementation of risk management determines the levels of risk management. Resource challenges make it difficult for others to allocate scarce resources towards operational risk management issues and hence limiting the levels of risk implementation integration. Organisations need to allocate enough resources (Fadun & Oye, 2020; Fraser & Simkins, 2016). Diligence in the regulators of risk management is another factor. Borraz et al, (2020) found significant differences in the conception and targeting of risk-based inspections by regulators which had starkly different implications in the EU. The same factors are applicable in developing countries. The type of industry is yet another factor identified. The type of industry will determine the levels of risk management integration. For this study, it had to be verified that industry-related risk affects the risk management strategy across all industries (Huang, Liu & Lu, 2019).

Drawing down to Zambia, the implementation of risk management has not been fully realised to reach a fully-fledged ERM mature level. The 2018 report by AFI revealed that Zambia was among the 37% AFI countries rated in the category of partial implementation of Basel II. This was due to several challenges faced in the implementation of ERM such as mismatch between the international sophisticated regulations and the simple local financial markets, inadequate capacity, and resources to implement the Basel II regulations and lack of proper data to complete the set details of the Basel model. It was also noted that the Basel I was still very much relevant to the local market as much of the issues faced by banks was the credit risk which currently registers high non-paying loans (NPLs). Hence attention towards credit risk is viewed as enough practice of risk management. Other factors like market and operational risk pillars are secondary (AFI, 2019).

From the empirical framework, the knowledge gaps had been identified that have to be filled up by the study to the extent feasible. In the consideration of the knowledge gaps, the section first considered what has been known about the phenomenon and the missing piece or pieces of information or details in the research literature that has not yet been explored or are under-explored. In all the factors identified, the effect of risk management tools is known, but the knowledge gap was on the extent to which they influence the implementation of risk management or the effect of lack of them on an Organisation and this is to be established in this study.

In general, the knowledge gap section scrutinised what is known against what is missing from the general published scholarly work. The knowledge gap on the risk management integration in business organisations is very wide. It is widely known that noticeable efforts are being made to enhance the integration of risk management in Organisations by both central banks and by firms themselves especially in the financial institutions, but the current extent of risk management implementation in individual firms, across industries and firm sizes is not known. This study attempted to solve this information vacuum by analysing the amount of risk management integration levels in Zambia, which may then be induced or increased by generalisation in the pattern achieved in developing nations.

CHAPTER 3: RESEARCH METHODS

3.1 Chapter Introduction

The research approach is based on the research problem that must be solved. The research problem arises from the observed increasing trajectory in business sophistication and risk exposures which has resulted in the risk management concept gaining increasing importance. Ideally, the expectation is to see a corresponding response to the international efforts being made to adopt risk

management systems. Some of these undertakings include solid efforts to institutionalise risk management procedures (Al-Khadash, Jireis & Embassy-Jordan, 2017). There is also a mushrooming of international regulations all to create benchmarks for implementing risk management creating conventional frameworks and standards (Njagi & Njuguna, 2017), the emerging of risk professional bodies with the ultimate goal of giving support to Organisations in terms of capacity building in risk management (Hillson & Murray-Webster, 2017).

With all these developments, the expected or ideal situation should not be different from the way accounting standards have been widely adopted. The expectation is that a similar zealous and full adoption of established risk management guidelines, procedures and frameworks across all firm types, sizes, industries, and under all factors and cultures. This expectation has been highlighted by many other scholars. Almost two decades ago, Hillson (2006) observed that since the risk is recognised in every field of human endeavour, it is expected a matching drive to address risk as far as possible. But contrary to this, it can be seen that there is a deviation from the real situation where businesses do not fully embed risk management in their business activities and strategy (Beasley et al., 2019; AFI, 2018; Fadun, 2013a). According to Baharuddin and Yusof (2018), risk management methods are somewhat poor and have not been practiced in their entirety, despite continual focus and stress on the potential benefits of risk management to each project. Other researchers have gone further to find out factors affecting this varied extent pattern of risk adoption in different organisations and much has been accomplished. Fadun (2013a) established that the adoption of enterprise risk management (ERM) is influenced by the size and type of the firms, managerial support, and willingness to adopt good practices, among others. It is noted that the why question has been thoroughly handled, but there is a need to establish the how far issue. There is a need to establish the extent to which such factors have influenced businesses to integrate embed enterprise risk management. Smith (2005) argued that there is a limit to how much effort you should invest in managing the risk in a project. He further argued that a business should recognise that you cannot do a perfect job, and anything approaching perfection would be beyond a reasonable cost. However, he never prescribed how far an Organisation should go in ideal

embedding risk. Hence, this research endeavours to bridge up the gap to establish to what extent business Organisations have integrated risk management in their businesses under the prevailing factors identified by Fadun (2013a).

The overall goal of this research is to determine how much financial organisations and similar businesses apply predefined risk rules, policies, and frameworks in their strategies and structures. to meet their objectives. Increasing emphasis on the importance of managing risk in all enterprises by the associations through international risk regulations and frameworks should be replied to by the widespread implementation of risk models. To achieve this, the study carried out a case study of Zambia, one of the developing countries using a triangulation method. The focus was on business organisations, and the sampling units were extended to other different industries and firm types. The respondents chosen represented their organisations to answer the questions from the questionnaire or the interview. The selected respondents were senior managers or members of the EXCO for the corporate companies or absolute owners in the case of the SMEs. To ensure that this balance is well represented, the purposive sampling method was used. Further details to all these are discussed in the seven sections of this chapter. The next section explains the research approach and design. Alternative designs have been presented and a justification of the one chosen is given. The next section ponders on the population and sample of the research study. The materials and equipment of research instruments are highlighted in the next section. Section five gives the operational definition of variables. This is followed by section six that addresses the study procedures and ethical assurances of the research as approved by the University Research Ethics Committee (UREC). Section seven explains the data collection and the chapter is concluded with a summary.

3.2 Research Approach and Design

The research study used the mixed research approach and case study design. In this section, several research approach alternatives were considered and justification as to why the one chosen method was arrived at. The three types of research approaches considered were qualitative, quantitative, and mixed or triangulation. Quantitative research is most commonly used to evaluate theories, but

it may also be used to investigate a topic and generate ideas. Qualitative research, while mostly employed for theory production, may also be used to examine hypotheses and ideas. Quantification may be used on qualitative data in the same manner that it can be used on quantitative data. For example, greater than, less than, most, and specified quantities. Similarly, open-ended questions may be used to collect qualitative data in quantitative approaches (Hughes, 2005).

Both sorts of study are legitimate and beneficial. They do not contradict each other. Both strategies can be used in a single study (Best & Khan, 1989). The results of one type of study can be compared to the results of another type of study. A qualitative investigation's findings, for example, may be compared to those of a quantitative research.

Triangulation is the intentional employment of different approaches, each with compensating or resisting biases, in inquiries of the same topic in order to increase the validity of inquiry outcomes. The fundamental concept of triangulation as a design technique is that all methodologies have inherent biases and limits, therefore using only one way to examine a particular occurrence would ultimately result in a biased and restricted set of outcomes. When two or more approaches with balancing biases are utilised to examine a particular event, and the results of these methods converge or corroborate one another, the validity of the findings is increased. The advantages of a mixed technique have been theoretically demonstrated to be valuable, and favourable statements have been backed by prominent researchers such as Campbell and Fiske (1959), Denzin (1978), Webb, Campbell, Schwartz, and Sechrest (1966), and Mathison (1988). Other beneficial advantages of the mixed technique are discussed further in the heading following.

Complementarity: In this hybrid approach of research, qualitative and quantitative methods are utilised to quantify overlapping but also distinct elements of a phenomena, resulting in a richer and elaborated knowledge of that phenomenon. The distinction between triangulation intent and convergence logic is that the multiple techniques must evaluate the same conceptual phenomenon. The substitutability intent is typically demonstrated by using a qualitative interview to assess the nature and level of program participants' educational aspirations, as well as influences on these

aspirations, in conjunction with a quantitative questionnaire to assess the nature, level, and perceived ranking within a peer group of participants' educational aspirations.

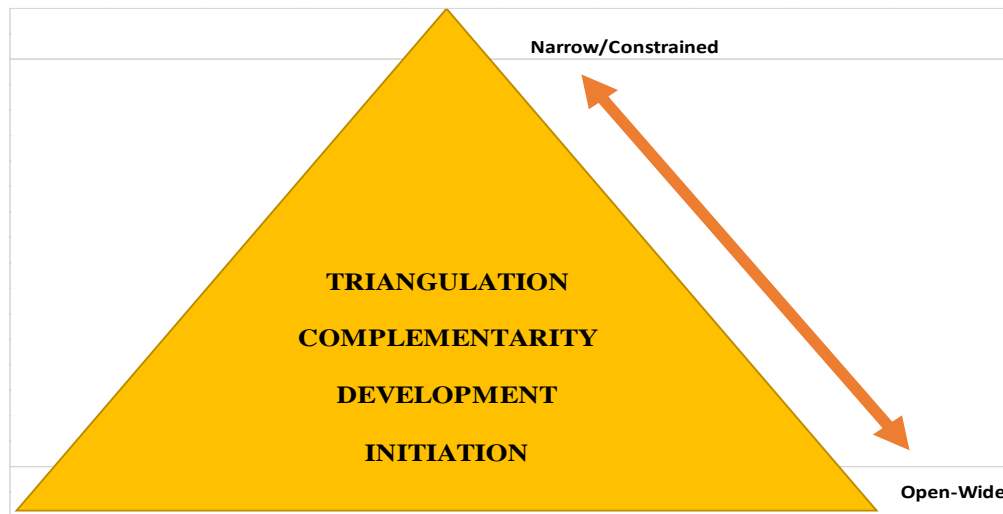
Development: entails the successive use of qualitative and quantitative methodologies, with the first assisting in the development of the second. A quantitative survey of program participants' educational ambitions, for example, might be used to choose a target sample for in-depth interviews regarding these objectives.

Initiation: This focuses on the discovery of paradoxes and new views that may develop rather than on a predetermined goal. However, in complicated investigations, as well as across studies, both consistency and discrepancy in qualitative vs quantitative data can be purposefully examined for new insights elicited through the use of contradiction and paradox.

Expansion: Cook (1985) performed a "multitask" research in his numerous frameworks, or a study that seeks for scope and breadth by incorporating several components. This mixed-method expansion objective is typically exemplified in assessment contexts by the employment of qualitative approaches to examine program processes and quantitative ways to measure program results.

The resulting conceptual framework provides a wide array of recommended design alternatives for diverse mixed-method applications. This array demonstrates that design alternatives for certain mixed-method goals are somewhat confined and narrow, while others are more flexible and broader. The design possibilities for data analytical techniques for blended assessment designs are listed below, sorted from most confined to least restrictive, triangulation, complementarity, development, initiation, and expansion are all terms used to describe how things work as shown in figure 3.1.

Figure 3.1: Flexibility of design options for mixed-method purposes



Source: Mixed Method Evaluation Designs: Data Analysis Strategies (Cook, 1985)

Below are the different strategies identified to be useful in the process of analysing the mixed-method approach suggested by Caracelli and Greene (1993).

1. Data Transformation: This is one way for combining numerical as well as qualitative data during analysis in order to convert one data type into the other and do statistical or thematic analysis on both types of data at the same time. This integrated data analysis technique was employed by Larner, Nagy, and Halpern (1987) in their implementation assessment research, in which multiple methods were used to examine different elements of program implementation. Data transformation is the translation or modification of one type of data into another so that both may be analysed at the same time. Qualitative data, for example, are quantitatively coded and incorporated in statistical analyses alongside quantitative data. The quantifiable data is translated into text and supplemented with qualitative data in concept or trend analysis.

2. Typology Development- The research of one data element generates a taxonomy (or collection of functional categories) that is used as a system connected in examining the distinguishing information type. Illustrations would include a set of conceptual measures resulting from a figure

inquiry of quantitative data combined with a categorical investigation of subjective data that is category advancement and coding). A responder or a site-specific typology coming about from examination of subjective information shapes a "gather" illustrative variable for measurable examinations of quantitative information (e.g., relapse examination) or, as another plausibility, is combined with other quantitative illustrative factors for the measurable investigation of subjective (categorical) information (e.g., logit examination).

3. Extreme Case Analysis- This technique was established through study of one data type and pursued through (more data gathering and) analysis of the second data type, with the goal of testing and improving the initial explanation for the extreme situations. Excessive cases, such as high residuals from a regression analysis of quantitative data, are pursued through (gathering and) analysis of qualitative data, the findings of which are utilised to modify the original explanatory model. Extreme examples uncovered by continuous comparison analysis of qualitative data are investigated further using quantitative data analysis, with the results utilised to enhance the initial interpretation.

4. Data Consolidation/Merging-The study of both data kinds in order to develop new or consolidated variables or data sets that may be represented quantitatively or qualitatively. These consolidated variables or data sets are then often employed in subsequent analyses: for example, qualitative and quantitative data are simultaneously evaluated and consolidated into numerical codes or narratives for future analysis.

Based on the discussion, we may infer that triangulation, or a hybrid research technique is the best strategy for us. It is a well-established and comprehensive process for interpreting data that includes a thoroughly structured conceptual framework and strategic design analysis.

Research design

To know the most suitable research approach and design, a quick review of the research designs is considered below.

(a) Qualitative Approach: Intends to explore the research questions and is highly subjective done under varying assumptions. According to Kraus(2005), many qualitative researchers' epistemological beliefs are different from those of quantitative researchers. The three design choices are;

- (i) **Grounded Theory** (literary new knowledge development)
- (ii) **Ethnography** (very broad approach capturing the whole culture)
- (iii) **Case study** (in-depth subjective analysis of unit variables to explain a complex condition)

(b) Quantitative Approach: Examines the relationship between variables in order to evaluate objective hypotheses. There are three designs;

- (i) **Case study** (in-depth objective analysis of units to explain a complex condition).
- (ii) **Correlational** (establish the relationship between two or more variables)
- (iii) **Experimental** (a design that indicates the nature before or after treatment of variables)

From the above considerations, it is noted that the most suitable approach to the above topic is a case study as the aim is to try and explain the depth of risk absorption in business strategy and it supports both qualitative and quantitative approaches.

(c) Design steps

Conventionally, it is well known that the purpose of conducting research is always the same regardless of whatever discipline or area of speciality it is being carried out. Granted there are many forms of research, but the overall aim is to explain the gap between the actual and the ideal situation. The phases in the design were chosen to suit the general research needs of developing a systematic process of inquiry that strives to uncover, reveal, interpret, and update the truth and

reality (Alhadeff-Jones, 2013). Hence, due to this common objective, the process steps considered helped in carrying out the research. There are four steps involved and these are discussed below.

Step one is describing the challenges and establishing goals to achieve. In this first stage, the emphasis is on revealing the nature and boundaries of a scenario or question related to the strategy or implementation. When describing concerns or obstacles, the researcher should evaluate the study's purpose, relevant background information, what information is necessary, and how it will be used in decision making (Pride & Ferrell, 2010).

The second stage is to plan the research project by establishing the information required as well as the resources that will support the work. This phase involves developing a research strategy to address the stated issue or problem. A research plan will serve as a foundation for carrying out the research. The techniques for gathering the essential information are outlined, and the objective is to investigate and identify possible solutions to the research questions. Sometimes the sort of information to be used is a different step from the study strategy (AcqNotes, 2017).

The third step is collecting data which involves obtaining the information needed to solve the issue or problem identified. The data collection can take the form of fieldwork and conduct interviews at shopping centres, business intercepts or can have online interviews including emails. Questionnaires are key to this stage and the researcher should be objective in designing questions. According to Cassell and Symon (2004), the primary objective should not be to quantify individual experience, and the researcher should be mindful of structuring the study topic in a way that reflects his or her assumptions or prejudices.

The fourth stage involves evaluating study data and reporting the conclusions of the investigation. The data obtained is processed, analysed, and conclusions are formed at this step. The objectives are interpreted to arrive at a solution to the recognised problem. The final stretch is to communicate the study findings to those who need the data to make decisions. The findings should be presented in a clear and understandable manner so that they may be used to make decisions. In addition, if

applicable, an oral presentation to management should be given, complete with tables, figures, and graphs to boost coherence and effect.

3.3 Population and Sample of the Research Study

To effectively investigate the extent to which risk management has been integrated into business organisations in developing countries (Case Study of Zambia), the sample data was collected from a population of business organisations as well as other industries.

(a) Description of the sample size and population

The population was chosen based on the study objectives which are stated below;

1. To ascertain the proportion of budget allocated by business Organisations in Zambia and other developing countries towards management of risks.
2. To establish which factors strongly influence the integration of risk management into business Organisations in Zambia and other developing countries
3. To determine whether business organisations have internal risk frameworks and international risk guidelines being implemented in Zambia and other developing countries.
4. To determine the extent of risk management integration across different types of firms and industries in Zambia and other developing countries.
5. To establish if there are formalised risk structures integrated into the business Organisations in Zambia and other developing countries.

It is noted that while the theme is focusing on business organisations, other objectives can only be met once the wider population is used. Hence the population or sample frame captured the following;

Financial Institutions: this was the target group - Registered commercial banks in Zambia (see the appendix) and registered non-bank institutions in Zambia (insurances, bureau de change, money lenders, savings banks and building societies (see the appendix attached).

Non-Financial Institutions – this was more of a control group like schools, retail and wholesale, real estates and utility companies.

Other (more of a moderating category) made up of mainly small organisations, family businesses, and mobile setups from different industries and sectors

There was a total of 18 commercial banks registered with the bank of Zambia, 117 non-bank financial institutions and a total of about 29,000 companies enlisted and in collaboration with the Patents and Companies Registration Authority (PACRA). The summary distribution of the companies per industry is shown in table 3.1.

Table 3.1: List of Business Organisations in Zambia (2021)

Sector	Business Name	Local Company	Foreign Company	Total
Wholesale And Retail Trade; Repair Of Motor Vehicles And Motorcycles	8,715	3,429	24	12,168
Financial And Insurance Activities	2,049	370	2	2,421
Other Service Activities	1,095	339	1	1,435
Agriculture, Forestry And Fishing	1,043	548	3	1,594
Education	976	341	8	1,325
Accommodation and Food Service Activities	883	250	1	1,134
Manufacturing	739	575	8	1,322
Construction	728	1,183	5	1,916
Professional, Science and Technical Activities	574	504	14	1,092
Administrative and Support Service Activities	532	325	1	858
Other Sectors	1,395	2,289	2	3,686

Source: (PACRA 2019 Annual Report, 2020)

The sources of data, therefore, are the Bank of Zambia Listing of registered bank and financial institutions that are not banks but under its supervision, the PACRA, and the Zambia YP Business Directory website that lists all the companies district wise actively operating. The table on the next page shows the Zambiyap listing for 82 different districts in Zambia. Participants were selected from each town by clicking on the activated figure against each town which shows the total number of active companies. For example, in Lusaka town alone there are 7072 active companies.

Table 3.2 Number of Companies by Town in Zambia

Filter by Alphabet

C G I K L M N P S Z

Chadiza 41	Chama 69	Chambeshi 1	Chavuma 24
Chembe 2	Chibombo 24	Chiengi 1	Chilanga 50
Chililabombwe 37	Chilubi 5	Chingola 390	Chinsali 91
Chinyingi 0	Chipata 344	Chirundu 45	Chisamba 38
Choma 246	Gwembe 6	Isoka 44	Kabompo 55
Kabwe 283	Kafue 95	Kafulwe 0	Kalabo 91
Kalene Hill 0	Kalomo 101	Kalulushi 72	Kanyembo 0
Kaoma 85	Kapiri Mposhi 44	Kasama 138	Kasempa 52
Kashikishi 0	Kataba 0	Katete 84	Kawambwa 14
Kazembe 2	Kazungula 4	Kitwe 1,379	Livingstone 661
Luangwa 13	Luanshya 127	Lufwanyama 0	Lukulu 69
Lundazi 131	Lusaka 7,072	Macha Mission 0	Makeni 3
Mansa 136	Mazabuka 165	Mbala 42	Mbereshi 0
Mfuwe 44	Milenge 7	Misisi 0	Mkushi 108
Mongu 158	Monze 113	Mpika 35	Mporokoso 25
Mpulungu 13	Mufulira 117	Mumbwa 42	Muyombe 9
Mwinilunga 62	Nakonde 3	Nchelenge 12	Ndola 1,076
Ngoma 0	Nkana 0	Nseluka 1	Pemba 20
Petauke 102	Samfya 67	Senanga 70	Serenje 24
Sesheke 58	Shiwa Ngandu 0	Siavonga 62	Sikalongo 0
Sinazongwe 9	Solwezi 201	Zambezi 52	Zimba 15

Source: Zambia YP Business Directory (2020)

6. Scope

The study aimed at capturing different firms from different industries or sectors in Zambia as far as resources had permitted, but to the desired size of 250 as a representative target of developing countries. Secondary data may be used to capture other countries in the sub-Saharan Africa region.

7. Sample size

The sample size was 158 comprising of small, medium-size, and big multinational corporations. The sample was blended to make up a category of units with specified characteristics. Some companies were in the size rated micro to small and medium-sized enterprises across various industries. Others were financial-based companies as well as non-financial multi corporations. These were drawn from different regions of Zambia.

8. Data analysis methods

The Statistical Package for Social Sciences and the Mega Stat spreadsheet were used to analyse the data. The research had built on existing theories and come up with a theory that refines or supplements the existing theories. The data was comprised of both qualitative and quantitative types. Qualitative data were coded, summarised and processed using MegaStat (and to a little extent, SPSS was used) while quantitative data and be processed in Megastat spreadsheet. However, it was planned that if at the time of data analysis, a more convenient data analysis tool was to be available that would have been used. The situation turned out to be that the two software were adequate and helpful in carrying out the task.

Sampling Method Used

In its basic form, sampling is used to come up with a sample secured by the means of picking a representative subset from the defined population. The advantages of sampling are obvious and were the same considerations factored in this research. One of them is that sampling makes research more economical as in most cases, both time and other resources cannot allow considering

the whole population. The type of sampling method was determining the quality and validity of the research results as well as the generalisability of this research findings.

In this research methodology, a purposive sampling method was appropriate to get sampling units that are relevant and with characteristics that needed to be evaluated. Purposive sampling, according to Showkat and Parveen (2017), is a type of sampling in which the researcher picks participants based on their discretion while maintaining the study's goal in mind. This sort of sampling depends on an expert's judgment to choose examples, or it selects cases with a specific objective in mind. In this case, there was a need to ensure that a list is compiled with sampling units that meet risk management eligibility or those which can be evaluated based on the ability to comply with risk regulations. Not all business activities are subjected to strict rules of risk framework, even though risk management truly starts at the personal level. For example, a family business set up though registered cannot be required to employ a risk manager or a store by the roadside with the business name expected to have a risk management unit. Hence for certain research objectives and questions, specific business entities were purposively targeted. Granted, this study did not restrict itself to the same type of firms or a mere focus entirely on corporations, but to be comprehensive, there was a need to select various business categories ranging from government parastatals, micro, small and medium enterprises to evaluate the risk management integration levels in these business undertakings, of course with the main target on financially based institutions. The sampling units were extracted using the listings and contacted via email addresses and phone numbers attached.

Justification for the sampling method

Due to the above research objective and purpose, random probability sampling cannot work out effectively. A non-probability method is needed to wilfully blend this desired set of categories. This is why it is appropriate to use non-probability purposive sampling. In exploratory research, this form of sampling is utilised. The researcher has little idea whether the instances chosen to represent the population or not when using purposive sampling. Most sampling methods are considered purposive since the sample problem is being handled with a particular purpose in mind.

Biases in research can occur throughout any stage of the research stage, beginning with sampling procedure and ending with reporting (Gardenier & Resnik, 2002). But in this discussion, the focus is on the type of bias committed at the very first stage of the research process in the sampling stage called sampling bias. Sampling bias is caused by the researcher unintentionally or intentionally when they omit some members of the population that are part of the sample. Lane (2015) observed that it is not the sample that is biased but the process of selecting the sample is what causes the bias. Since the population is in most cases too big to work with, sampling bias is inevitable, and it is a systematic error (Good & Hardin, 2006). The next sections highlight the consequences of sampling bias on research results.

Consequences of Sampling Bias to watch for

External validity undermined: The biased sampling leads to the research results which cannot be used to accurately predict or generalise to the wider population, other situations of different contexts, times and settings. The regression line estimated by Berk (1983) in a scatter plot for the sample indicated that the estimation for the population prediction understated the slope of the population original regression line. This indicates that the sampling bias greatly undermines the external validity of the study, and the biased sample's research results cannot be trusted. The research ability of extrapolation which is the process of concluding something that is beyond the range included in data collected or the making of inferences from a sample to include the whole population (Good & Hardin, 2006) is diluted. Making any conclusion from a biased sample guarantees an erroneous inference because the sample selected suffers from a systematic error created by the omission of some members of the population.

Internal validity: it is known that internal validity measures the extent to which the results that have been observed are attributable to the independent variable and not some other rival explanation. Sampling bias results in predictions within the sample being crude and distorted either in form of inconsistency or too uniform. How this comes about is that in a sample voluntary response sample distort facts since respondents that have strong opinions are oversampled and those that are lukewarm are under sampled. This reduces the trustworthiness of the representation

and creates a problem of over or underestimation of the corresponding concern within the population. Berk (1983) established that for some low range values of the manipulating or independent variable, the sample regression line fell on or above the expected values of independent variables but for higher values, the line fell on or below the expected values. This indicated that for low values, negative exogenous disturbances would have a higher effect on the effect, in other words, the effect of the variable under consideration would be weaker than other outside variables. For higher values of the independent variables, the positive disturbance would highly predominate. What this means is that due to biased sampling design, the independent and other external disturbances which could be attributed to the explained variable were correlated and cofounded. Biernacki and Waldorf (1981) also concluded that a biased sample creates problems leading to an over-or under-estimation of the corresponding concern within the population.

Infinite regression problem: This is a regression is a supposed chain of causation in which each alleged cause necessitates the occurrence of another event of the same sort. In research, as was earlier observed, it is practically impossible to do away with biasness. When a random sample is taken from a population, still at some point that sample is biased and the question comes in as to why respondent A was selected leaving out respondent B, who might have a different view or influence to affect the result differently. Hence Berk (1983) observed that there exists an almost infinite regress for any data set and at any given point such that bias effect becomes a potential inevitably. So, at any given time, there is a need to assess whether the level of sample bias is small enough to be ignored or is significant enough to be mitigated with other measures.

Reliability problem: biases can lead to low reliability of data. Where there is tempering in validity, reliability automatically gets compromised. Reliability focuses on the degree of consistency of measurement (Bollen, 1989), as a consequence, it is assessed for stability in a variety of scenarios in which the same results should be produced (Nunnally, 1978). The range of reliability coefficients is 0.00 to 1.00, with greater values suggesting better levels of dependability, sampling biases can reduce the index to be approaching 0 while a less biased sample yields the reliability index closer to 1.00.

In conclusion, it is established that sampling bias affects the quality of research results for the most part. Even if it is not possible to eliminate biases in sampling, the degree of business should be kept to the minimum level and should be unintentional. Failure to avoid intentional bias in research yields results that can mislead would-be users of data and perhaps cause harm. In this research where biases have been identified and decided not to be eliminated are openly declared in the report and state reasons why they were absorbed in the research and left as they are.

3.4 Materials and Instrumentation of Research Tools

Intended Data Collection Tool and Analysis

The data collection tools that were used are the questionnaires and the interview.

Questionnaires are well-structured questionnaires that are a series of questions in written form answered at the time of respondents' convenience and functioned as a tool to collect *quantitative data* for our research questions (Isave, 2010). The advantages of questionnaires are that if easily structured they draw out objective answers. Yield high rate of factual information is free to answer and can be used for a larger sample compared to other methods. Affords resource and time saving, they are flexible and crosses geographical limitations.

Interviews: Interviews were used for *qualitative data*. Interviews are known to carry emotional gesture and feeling that is best needed to pick the actual position of businesses on risk. Interviews are a socially acceptable way of collecting data (Dörnyei, 2007). They are recommended by many researchers (e.g., Berg, 2007; Kvale, 1996; Bell, 1987) to obtain direct explanations for human actions through a broad speech interaction (Alshenqeeti, 2014).

Instrument and Instrumentation

The study procedure used a standard approach to instrument and measurements. It is commonly established that an instrument is a popular word used by researchers for a measuring device (survey, test, and questionnaire) and that it varies from instrumentation, which is the course of action, the process of developing, testing, and deploying the tool.

The researcher-completed instrument is filled out by the researcher, whereas the subject-completed instrument is filled out by the people who are being questioned. Those instruments administered by researchers against those completed by individuals are differentiated in this circumstance. The sort of study questions determines which instrument, or procedures, should be used. In order to maximise yield, special attention was paid to several areas of instrumentation best practices, which are addressed further below.

Usability

The simplicity with which an instrument may be administered, understood by the respondent, and scored or interpreted by the researcher is one of the most significant aspects of instrumentation. There are five usability considerations in instrumenting the instrument and these are:

1. How long would it take to administer the instrument?
2. Are the instructions and in-text directions clear?
3. How easy is it to score?
4. Are there equivalent forms in existence?
5. Have any problems been reported by others who used it?

Use of the existing prior tested instrument

As it is advised that you adopt a pre-existing instrument that has been thoroughly researched and tested, the research consulted various sources to secure the instruments that have been used and slight modifications were made to completely tailor the questions to the relevant research questions. Various scholarly works were consulted as indicated in section 4.2.1 of this report and a blended questions with prior testing were used for this research instruments.

Validity in quantitative research

The validity of an instrument is essentially the amount to which it measures what it is meant to measure and operates as it is planned to do, which is the second feature of the instrumentation portfolio. Validity is usually expressed in degrees, and it is very impossible for an instrument to be completely valid. Validation is a procedure that involves gathering and analysing data in order

to determine an instrument's correctness. This was a case study and hence need generalisation to the entire scope of developing countries using the population from Zambia. Among the various statistical tests and methods used to examine the validity of quantitative instruments, pilot testing was employed to verify both external and content validity.

External validity is the extent to which a study's conclusions may be generalised from a sample to the entire population. As a result, sampling leads directly to the establishing of an instrument's external validity. Because the entire population may not be available, a sample should be a true representation of it. An externally valid instrument can aid in determining population generalisability, or how well a sample represents the whole population (Jolivald, Yarnell, Hall, & Ijichi, 2022)

Content validity is the suitability of an instrument's material is referred to as validity. To put it another way, do the measurements (questions and observation logs) correctly assess what you're looking for? This is especially true when it comes to accomplishment tests. This would entail selecting representative questions from each of the unit's sections and comparing them to the expected outcomes (Jolivald et al., 2022).

Reliability in quantitative research

Instrumentation's consistency depends on its reliability. Is the gadget measuring what it's supposed to be measuring every time? Although dependability cannot be calculated, there are four broad estimators that you may come across while reading research (Jolivald et al., 2022).

- (a) Inter-Rater/Observer Reliability: The consistency with which various raters/observers provide similar replies or estimations.
- (b) Test-Retest Reliability is defined as a measure's constancy across time.
- (c) Parallel-Forms Reliability is the consistency of two tests created in the same method with the same information.
- (d) Internal Coherence Cronbach's Alpha refers to the consistency of outcomes across items.

Relating Reliability and Validity

- (a) The measure's validity is closely connected to its reliability. There are three key concepts to remember. A test may be trustworthy, but it is not legitimate.
- (b) Validity takes precedence over reliability.
- (c) The most helpful tool is one that is both legitimate and trustworthy (Jolivald et al., 2022).

Qualitative research's validity and reliability

Because of the high level of subjectivity, establishing validity and reliability in qualitative research can be challenging. To strengthen the instrument's validity, participant/member checks can be used, but in this case, peer review (in which another researcher evaluates the researcher's conclusions based on the instrument (Denzin & Lincoln, 2005) and several approaches were used to persuasively attain reliability. However, it has been noted that some qualitative researchers reject the idea of validity due to the constructivist stance that reality is unique to the person and cannot be generalised. These researchers advocate for an alternative standard for determining study quality (Lincoln & Guba, 1985).

The analysis adopted for research study

The data collected was analysed to meet the set objectives. The analysis approaches to use are the *thematic analysis for qualitative data*. To get precise information, thematic analysis was utilised to detect, analyse, and present patterns or themes within data (Boyatzis, 1998). These were summarised into categorical patterns that yielded the desired objective results. The second method was employed in the quantitative data where structured data was coded, and input was made in the software for analysis. The social sciences statistics software package (SPSS) and Megastat were among the quantitative software analysis tools used to run data distribution, frequency tables, and statistical tests.

3.5 Operational Definition of Variables

An operational definition outlines a metric for quantifying something of interest, in this case, the variables. According to Slife, Wright, and Yanchar (2016), the idea of operational definition faces

a translation validity problem, which is the degree to which the study's intended meaning of constructs matches their operationalisation (Krathwohl, 2009). It should be highlighted that operational definitions are never totally appropriate since they are rarely sufficient to represent the rich and complex concepts inherent in a construct. As a result, this research was conducted with caution, understanding that if it failed to measure the proper items or failed to assess them correctly, the research method would be unable to answer the relevant questions. Hence to identify the relevant variables for operational definition, there was a need to revisit the research objectives and hypotheses to help measure them rightly.

3.5.1 Review of Research Questions and Hypotheses

Research Questions

The research aimed at answering the below research questions which were also a basis for the investigation.

1. What is the proportion of budget allocated by business organisations in Zambia and other developing countries towards the management of risks?
2. What factors influence the integration of risk management into business organisations in Zambia and other developing countries?
3. Do business organisations in Zambia and other developing countries have internal risk frameworks that complied with international risk management standards?
4. What is the extent of risk management integration across different firms and industries in Zambia and other developing countries?
5. Are there formalised risk structures integrated into business organisations in Zambia and other developing countries?

Research Hypotheses

The following were the presuppositions stated in form of hypotheses. The hypotheses stated in the null (H_0) and omitting the alternative (H_1) hypotheses.

H1₀: Financial organisations in developing countries do not allocate any portion of their budget towards management of their risks.

H2₀: There are no significant factors influencing the risk management integration in business organisations in Zambia and other developing countries

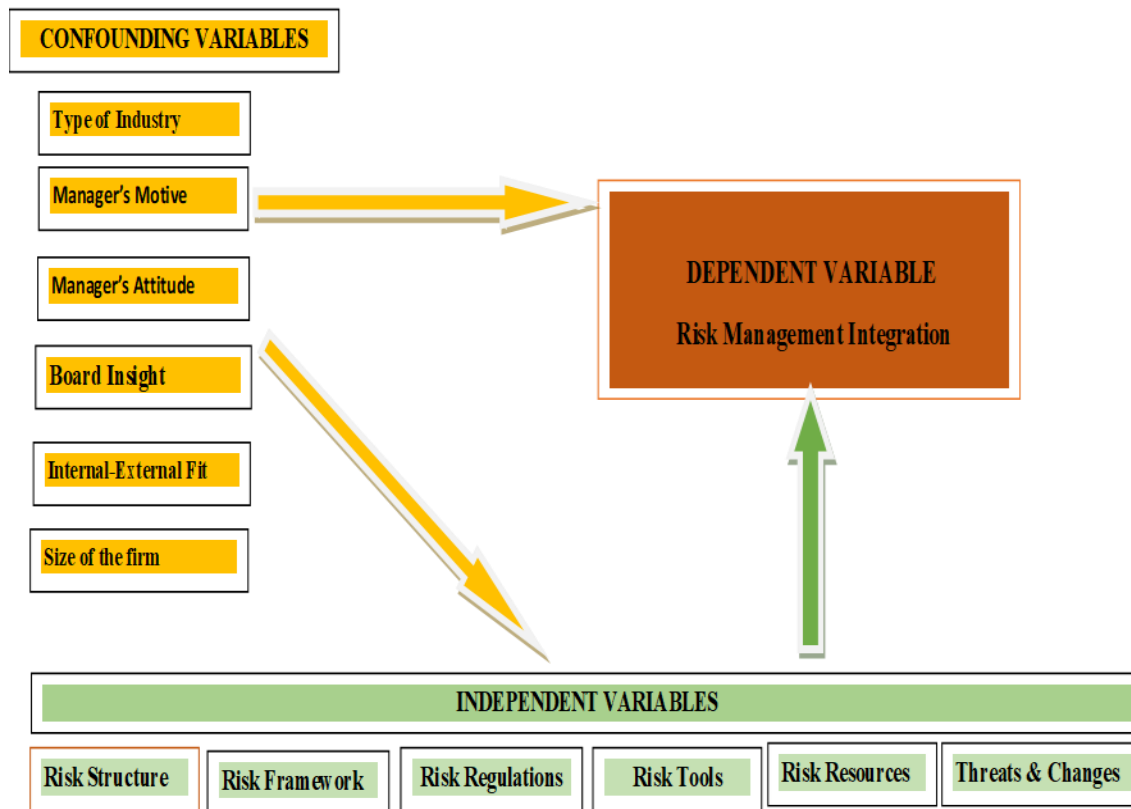
H3₀: The industry where a firm operates in Zambia and other developing countries does not influence the extent to which risk management is integrated into the organisation.

H4₀: Financial organisations in Zambia and other developing countries do not have internal risk frameworks that complied with international risk management standards.

H5₀: There is no relationship between a firm's size and the extent of risk management integration in Zambia and other developing countries.

The above objectives and hypotheses yield the variables that were described in the conceptual framework of chapter 2. There are twelve explanatory variables of which six are direct independent and six are confounding variables all influencing one dependent variable, the level of risk management integration in business organisations.

Figure 2.1 Conceptual Framework (pasted from chapter 2)



Source: Author (2022)

3.5.2 Operationalisation of variables

Industry type: industry type was measured as ordinal categorisation in terms of whether an organisation is in financial, non-financial or others. This variable is affecting the levels of risk integration in an organisation. There is an established position that certain industries such as banking, finance, mining, oil refinery and IT are riskier because they are informationally opaque as compared to other industries (Chukwunulu, Ezeabasili & Igbodika, 2019).

Manager's motive: The managers motive is also an ordinal measurement variable measured in terms of whether categories of whether managers have the intention of serving their needs or that of the company when it comes to the risk management decisions. Hence the variable was measured by the frequency of the organisations that felt managers motive had influenced their integration of

risk management. This variable arises from the agency information theory where agents, who are identified as managers are believed to have interests and behavioural biases that conflict with the best interests of the principal, who are the shareholders (Jankensgård, 2019). The scales range from very weak to very strong influence on organisations risk management process

Manager's attitude: Managers attitude is an ordinal measurement in the categories and frequencies of the manager's attitude towards taking risks. This is measured in terms of risk-averse, risk-neutral or risk-taking (Iswadi, Saputra, Haykal, & Albra, 2019; Holden, Hall & Mailroom, 2010). And in the questionnaires, this variable is measured by the frequency of the strength in the influence caused by the manager's attitude in the risk management practice of the Organisation management process. The scales range from very weak to very strong influence on Organisations risk.

Board insight: measured in terms of whether the company board of directors receive prudent reports on organisations risk management issues on a routine basis. The variable is also measured in terms of the rating from weak to strong of how the board influences the implementation of the risk management in that Organisation. The more the board is enlightened, the more they support risk management of the Organisation. Fadun (2017) confirmed that banks' boards and shareholders should put pressure on the management so that they act in their best interest as well as good corporate governance practices. Recent studies, such as Hubbard (2020), reveal that risk management visibility has reached the board level as a result of the criticality of the board being informed on risk problems.

Internal and external best fit: This variable is measured in terms of the frequency of the ratings from weakest to strongest of the influence that the internal-external best fit factor has on the risk management of the organisation. Because of the open exposure, a business must build a solid fit between internal systems and the external world (Kulkarni, 2017). Whether or not this is a valid explanation is determined by the organisation's strategy and goals.

Firm size: Benlemlih, Shaukat, Qiu and Trojanowski (2018) showed that a firm's size is positively related to systematic risk and negatively related to total and idiosyncratic risks. This implies that the bigger the firm, the higher the systematic exposure. The number of workers in the organisation was used to calculate this variable. Small was defined as an organisation with less than or up to 20 employees, the medium was defined as any organisation with 20 to 100 employees and big size was defined as above 100 employees.

Risk Structure: The establishment of a risk department helps to design and implement the ERM (Laisasikorn & Rompho, 2019). This variable was measured in terms of whether an organisation has a risk department or not. It was also measured in terms of how many organisations feel that the risk structure is a weak or strong influence on their risk management practice.

Risk Framework: The risk framework is a collection of concepts and programs that an organisation has put in place to manage both firm-specific (unsystematic risk) and industry-specific risks, or market-based (systematic risks) risks as well as other upcoming risks during the operation (Mishra, Rolland, Satpathy & Moore, 2019). This variable, therefore, was measured in terms of whether an organisation has a risk management programme or not. It is an ordinal measurement. A further dimension was done by counting the frequency of the ratings from weak to strong on a continuum where organisations felt the risk management framework influenced their risk management practice in the organisation.

Risk regulations: Borraz et al, 2020 found important differences in the conception and targeting of risk-based inspections by regulators. Some Organisations are under aggressive regulators and will always compel the Organisation to comply to risk management guidelines. This variable was measured in terms of whether an Organisation is under some regulator or not. It was also measured in terms of how strong or weak regulators contribute to the implementation of risk management of the Organisation.

Risk management tool: This variable was for systems or processes set in place to identify, monitor, analyse, and report on the numerous risks that influence a company Examples include

market value at risk (VaR), stress testing, credit risk reduction methods, and operational risk management systems (Ostrom & Wilhelmsen, 2019). The variable was examined in terms of whether or not the Organisation has tools relevant enough for risk management in place such as CashFlows@Risk, Value@Risk, and many others. It was also measured in terms of the frequency of ratings of influence from weak to strong of the risk management tools to risks management practice.

Risk management resources. Fadun and Oye (2020) recommended that banks' management deploy adequate resources toward understanding operational risk to ensure sound operational risk management and improved financial performance of banks after observing an increase in losses borne by banks as a result of inadequate operational risk management practices in their survey. This variable was thus measured in terms of how much resources allocated in the budget are dedicated towards risk management. The three ordinal measures were significant, insignificant and negligible allocation of resources towards risk management.

Environment changes and threats: The volatility of the market and environment where an Organisation operates will prompt it to adjust the risk management framework, change the motive and attitude of the managers and eventually redefine the risk management integration levels (Morris, 2019; Kulkarni, 2017). This variable was measured in terms of the frequency of the ratings from weak to a strong continuum that the environmental changes and threats affect or influence the implementation of risk management in the Organisation.

3.6: Study Procedures and Ethical Assurances

The study was subjected to a two-stage approval process by UREC- a research ethics committee before engaging in research data collection. The first stage was a preapproval stage in previous stages of the dissertation and the second was at the time of data collection. Along with all these were the stringent supervisory validations and technical guidelines. The data collection involved human subjects that were to be ethically protected in many areas. Before consideration can be given to these ethical issues, first the procedure of how data was collected is summarised below.

Steps taken in data collection

1. **How** – following the design of the steps highlighted in unit 3.2, the data collection was done after using a well-approved sampling procedure (purposive) from the relevant population shown in the appendix. The data were collected using structured questionnaires and open-ended interview questions. The questionnaire was sent to respondents and their responses were coming as unidentified from the owners. While interviews were conducted via telephone due to COVID 19 stringent measures.
2. **When** – the first pilot data was collected from mid-December 2020 to the end of January 2021 (pilot) and the actual data was collected after the UREC approval in March 2021 during the third wave of COVID 19 third wave effects.
3. **Where** – both financial and non-financial institutions were engaged from the sample, this extended to other unclassified institutions as control research areas. All were engaged out of full consent.
4. **From whom:** The selection criteria as outlined in the UREC application form, and each participant chosen from the institution was to be a senior staff member directly involved in the Organisation's risk management system. Any workers not involved in risk or audit concerns for the Organisation, as well as the Organisation's bottom hierarchy, were excluded from consideration.
5. **What** – the data as specified in the research objectives and reflected in the research questions was of utmost priority.

Ethical Assurances

The human subjects involved were taken care of ethically in the below-highlighted areas.

1 Beneficence

The term benefit inspired the notion of beneficence. It is an act of generosity, compassion, and kindness that has a strong connotation of doing good to others, as well as the fulfilment of moral obligations (Kinsinger, 2010), The entire point of undertaking research is to provide discoveries

that are useful to society; otherwise, it is pointless. In order to follow ethical guidelines in this domain, researchers should conduct research that includes a component that improves societal well-being. The researcher must guarantee that the research's output maximises the possible benefits to both the participants and the ecosystem as a whole.

This means that the researcher will have to pay particular attention to health and safety regulations. Any risks associated with the research in question must be accompanied by mitigation measures that will minimise the impact given the occurrence of the event which may go wrong.

In this context, the ethical rule of beneficence was upheld by collecting information that is beneficial to Organisation survival through risk management practices. It gives a platform to both regulators and the regulated alike on the status of risk management implementation to the Organisation.

2 Non-maleficence

The ethical principle of non-maleficence holds zero tolerance to harm. It has pronouncements stating that 'do not harm,' or do not inspire participation of subjects in treatments that could result in harm to them and never harm through indecision. The Tri-Council guidelines suggest that research should not be conducted at all if it is perceived with no doubt or the slightness of it that it might cause serious or lasting harm to a participant (Haggerty, 2004). When conducting research especially in medical fields and engineering, any lapse in the beneficence principle automatically causes maleficence. There is what is called the Hippocratic pledge in health care where professionals are required to abstain from harmful and mischievous acts (Markel, 2004). The weight and obligation of non-maleficence go beyond the issue of avoiding harm but also not imposing the risk of harm (Beauchamp & Childress, 2001).

The implication is that a researcher should not experiment on human beings concerning the viability of some treatment to see how effective it is without proper conviction. The later part of the discussion relates to this situation in the Ebola Case Study. While it is true that losses cannot be eliminated, the ethical principle of Non-maleficence dictates that the researcher should hold

this to the minimum and any harm happening should be only unplanned. In this context, this research completed the process with no trace of harm to the participants and those they represented.

3 Respect for Persons and informed consent

The respect for people holds that the researcher should observe human dignity and avoid any embarrassment on the participants. Before beginning any research, a researcher should pose the following question, according to the Wellcome Trust (2014) guide: Has everyone who is participating in your research voluntarily chosen to participate with a thorough awareness of the risks of the research and their involvement in it? This issue takes into account both of these considerations as well as the notion of informed consent. To ensure that the research approach does not violate this ethical principle, they should see to it that every participant is given informed consent by consulting and fully involving them before starting research.

Everyone participating in the research should be given a thorough explanation of the findings. The goals and procedures of the study, what is needed of participants throughout the research and why, explain any rewards and dangers involved with the research, and how the data submitted will be stored and utilised are all examples of information to provide.

There is no harm in inviting people to take part, but in no circumstance will anyone be compelled to give consent. Showing respect to individuals may also include a situation where you avoid engaging subjects you suspect cannot undertake certain tasks such as reading, learning challenges or reserved personality that cannot hold public explanations because this would cause serious and lasting embarrassment to them for entire life.

In some instances, the need may arise to create a consent form for the participants which explain all the details as earlier discussed on the details of the research you are conducting. They can commit themselves to the participation and evidence of informed consent by signing and indicating the date they have consented.

During the data collection stages, this research took much more time on the consent stage than the actual data collection process. A lot of effort was invested to make people understand and be cleared especially during these cyber security concerns and data theft which many institutions are very much aware of. This ethical consideration was so challenging that the size of the pledged number of participants was failed to be met by a big margin.

4 Fairness

The ethical principle of fairness calls for a researcher to answer the question that *Is the harms and benefits of the research shared fairly between the participants?* If at all possible, it is ideal to ensure that the beneficence and the maleficence that is, the pro and cons of participating in research be distributed equally among participants, regardless of a social group. No one group should constantly be held as a mere control group compared to other intended groups. The purpose for conducting research should be in such a way that the entire groups involved yield appreciable benefits and share the burdens that come with it fairly.

Benatar and Singer (2000) observed that the research on treatment and care may not have the same benefits in developing countries as they may be in developed countries due to several discrepancies between the two groups of countries. When researchers in developed countries recommend the best methods of treatment and care, they have in view a perfect set of facilities available in their region, which may not apply to developing countries. Hence it was concluded that the standard of care for subjects participating in clinical trials is not well defined and therefore a recommendation was made that international researchers must fully comprehend the context in which their research is being conducted.

In a similar context, Benatar (2002) observed that many resources are spent on research projects focusing on diseases that have a low proportional impact on developing countries, leaving out those that matter most. He further observed that researchers have more of a commercial motive and personal gain in researching than benefiting society as a whole. This is a serious violation of the principle of fairness and justice. This ethical consideration was taken care of, and no

marginalisation of fairness was tolerated based on changing circumstances and hence it is alleged that the findings of the research will be universally applicable.

5 Confidentiality and Anonymity

The responses and input provided by the research participants were kept confidential by limiting who can access the information as well as hiding the identity details of the respondents. One way of violating this principle is to sloppily keep the information in places that can be seen or accessed by other people. To ensure that confidentiality and anonymity were guaranteed it was ensured that the gathered information was kept in a safe medium with limited access to the public. No printout of hard copy was done otherwise it could also be helpful to shred off and incinerate the documents after use. In case the researcher wants to make use of the same information in future, then completed paper questionnaires can be transferred to electronic spreadsheets and add a protected pin code for access after which they can shred the original paper copies.

In this research, information was made anonymous by devising a system that demands that the researcher should make it impossible to identify people from the data provided. To prevent this identity, the system made sure that they completely avoid certain details from the respondents which can have the potential to lead the identity of the source of the data. Some of the details eliminated from the data collection tool during the survey were: Name, Date of birth, Height, Weight, Handwriting, Gender, Political affiliation, favourite sport and hobbies, Music preferences, favourite subject, Ethnicity or even Postcode or name of Organisation an Organisation was representing.

3.7: Data Collection and Analysis

The data collection was achieved through the making use of the two cardinal data collection instruments, the interview and the questionnaire (see unit 3.6 of this report). The questions both in the questionnaire and interview addressed each of the research questions and gave way to hypothesis testing. The data collected had to be coded in an anchor ranking system from 1 to 4 for

the questionnaire multiple-choice questions and from 1 to 5 (Very Weak to Very strong) continuum for the factor table listing. Questions from the interview were open-ended and the answers were classified according to pre-set categories and assigned to the specific code. The sections were separated by the questions each aiming to answer.

The data collected was a combination of qualitative and quantitative data and the analysis in triangulation were carried out according to the strategies and benefits highlighted in unit 3.2 of this report. The data processing software used were Excel, SPSS, and Megastat. The statistical test was first preceded by frequency tables and the matching of cross-tabulations for each research question and research hypothesis. The other hypothesis tests were done in Megastat from the given pair runs of questions at a given confidence interval.

The nature of the data determined what method to use for hypothesis tests and the type of the pair of the independent variable (predictor or explaining variable) and the dependent variable (the predicted or explained variable). All research questions were evaluated one by one and associated research hypotheses were tested appropriately. Those that fell under qualitative, quantitative and mixed were tested accordingly using the strategies as described in the next subheading.

Mixed-Method Strategies for Research Hypothesis and Design

(a) Qualitative Approach: Intends to explore the research questions and is highly subjective done under varying assumptions. As observed by Kraus (2005), many qualitative researchers operate under different epistemological assumptions from those of quantitative researchers. The three design choices involved were;

- i. **Grounded Theory** (literary new knowledge development). This analysis was applied to a certain number of questions in the questionnaire to lean new knowledge away from what is known. The example is an open-ended question on the challenges and recommendations on risk management.

- ii. **Ethnography** (a very broad approach capturing the whole culture). The questions in questionnaires involved various companies covering not only financial and insurance but also non-financial companies to establish a unique risk management culture that is predominant in them.
- iii. **Case study** (in-depth subjective analysis of unit variables to explain a complex condition). It focused on the case study of Zambia as the deep dive area of research.

(d) Quantitative Approach: Examines the relationship between variables in order to evaluate objective hypotheses. The following three designs were used:

- i. **Case study** (in-depth objective analysis of units of variables to explain a complex condition). A limited geographical area was chosen to capture a feasible part that would represent the situation in the developing countries.
- ii. **Correlational** (establish the relationship between two or more variables). This test was done by pairing the variables to see the movement in the relationship between the variables in question. For example, a link was to be created between the sort of industry a corporation is in and the amount of risk management integration.
- iii. **Experimental** (a design that indicates the nature before or after treatment of variables). The research was not dominated by experimental setups but a control group of companies belonging to non-financial institutions were used to establish the relative pattern of risk management integration in financial and non-financial institutions.

Summary

The chapter has addressed the tenet part of the research problem which is the seeming gap between the increase in the business exposure to risks and the actual response shown by the firms in risk management. Despite a consistent focus and emphasis on the positive benefits of risk management

to each project, researchers such as Baharuddin and Yusof (2018) revealed that risk management methods are comparatively poor and have not been practiced in their totality. The research endeavoured to bridge up the gap to establish to what extent business Organisations have integrated risk management in their businesses under the prevailing factors identified by Fadun (2013a).

To accomplish this, a triangulation research design was adopted, which combines two or more approaches with balancing biases used to examine a particular occurrence. The outcomes of various methodologies converge or confirm one another, increasing the validity of inquiry findings. Campbell and Fiske (1959), Denzin (1978), Webb, Campbell, Schwartz, and Sechrest (1966), and Mathison (1988).

Purposive sampling was used to gather the sample data from a population of business organisations drawn from different industries. Questionnaires were used for quantitative data and interviews for qualitative data. The population involved the entire country space, and the research data collection instruments were shared online. Ethical issues were to be contextualised during the data collection process. Informed consent, confidentiality, and beneficence, among others.

The chapter has highlighted the various data analysis methods and software being Excel, Megastat and SPSS. Various hypothesis testing designs and research question evaluation were explained in the triangulation method. Some of which include a case study and experimental from quantitative side and ethnography and grounded from qualitative.

CHAPTER 4: DISCUSSION OF RESEARCH FINDINGS

4.1 Introduction to the Section

Chapter four addresses issues of motivation for this study and is the custodian of the discussion of findings that have been highlighted to keep pace and set the direction for the research. It has responded to a primary goal of this inquiry, which was to identify the level of risk implementation of financial organisations in comparison with other types of organisations in terms of how they are making use of set risk regulations, risk policies and risk frameworks in their strategies and structure to meet set objectives. It is widely known how exposed organisations are to losses and failure caused by business risks and environmental threats. This has been globally responded to by focusing on increasing resilience through risk management. With the support of various worldwide associations, risk management regulators, and risk regulatory authorities, Risk management has grown in importance and relevance in all businesses. With this exposure, it is expected that all Organisations adopt and integrate risk management frameworks to the fullest. Hence the study gathered the data to check if risk management integration has been done in business organisations and to what extent.

The sections to follow focus on explaining various pertinent issues which were cardinal to the research process. The first part covers the factors that were considered to assure the trustworthiness of the reported data. Under this section, a discussion on the credibility of data collected is elaborated in terms of how triangulation was done, data checks and description coding. The transferability of the research finding is discussed to afford the comparison of established patterns with other past, current and future research under similar study patterns. The issues of dependability are addressed elaborated in this section with a description of the methodology that will allow future researchers to repeat the probe on the same subject. The section discusses the issues of confirmability admission in terms of the researcher's beliefs and assumptions as well as the audit trail, recognising the shortcomings in methodology and their probable effects.

The next section focuses on the Reliability and validity of data that was used in processing the findings. In the discussion, efforts are directed to split validity into internal validity and external

validity in which the former is based on the measurement's and the test's validity of the same study while the latter is based on the capacity to apply the findings to the intended population. The reliability is addressed in terms of the overall consistency of the research study's measurement instrument, especially with the test-test reliability. The section highlights how the study endeavoured to meet the validity and reliability of the used measurement instruments.

The next to follow is the results section in which a systematic order guided by research questions and hypotheses are discussed. This part presents the overall report results of the study but without detailed discussion. The part discusses an overview of demographic information collected. The discussion of research questions and hypotheses follows this section. Data points relevant to the associated research question and hypotheses are discussed under themes and are presented in tables for all research questions and hypotheses. The section to follow focuses on the evaluation of research findings and attach meaning to them. The section is arranged around topics of the study that are interpreted in light of the theories and/or conceptual framework(s) described in chapter one. The fourth chapter concludes with a summary of the main themes addressed in this chapter.

The importance of this chapter to the reader is that it has presented major preliminary findings that are further evaluated in chapter five where more attention is given in terms of the research implications, recommendations and conclusions of the research study. This chapter lays the groundwork for the reader to concentrate on the overview of the issue description, goal, approach, constraints, and ethical components. These are also thoroughly presented in chapter five where implications for each research question and hypothesis and how cited the limitations affected the interpretation of the results.

After appreciating this chapter, the reader looks forward to a stage where it is easier to move together and be able to deduce whether the results were as expected from the literature or in conflict with the expected account of events many observable events in deviation from results. This chapter should also be used by the reader to provide a foundation for the discussion of the suggestions for application as well as recommendations for further study. This chapter serves as a bridge and a

means to appreciate the Chapter five conclusions or the take-home message of the entire dissertation study, with a particular emphasis on the results of the study and what the results concerning theory and or prior research or practice based in context with the type of study conducted.

4.2 Trustworthiness of Data

This section covers the important part of this research in reporting data and aims at giving an assurance in terms of the various means by which the trustworthiness of the data was secured during the study. According to Guba and Lincoln(1985), four elements are specifically addressed to assure data reliability: credibility, transferability, dependability, and confirmability (Amin et al., 2020; Lincoln & Guba, 1985). These topics are covered in the sections below.

4.2.1 Credibility

In this context, credibility is defined as the truth of the data that represents the precise or nearly-exact opinions of the participants, as well as the researcher's proper interpretation or portrayal of the same data (Polit & Beck, 2012). In theory, credibility is ensured when the researcher gives the description of the experiences from an independent point of view as a researcher and verifies the study results with the participants, which is summarised as prolonged engagement, triangulation, and member checks (Liao & Hitchcock, 2018). Similarly, over three decades ago, Sandelowski (1986) stated that a study is considered trustworthy if the representations of life experiences are acknowledged by others who have had the same encounter.

This research looked at the importance of credibility and was supported in various ways during the study and reporting. The researcher fully engaged the participants, and a mixed method of study involving both qualitative and quantitative was used along with active observations. This triangulation cancelled out the pitfalls arising from one method of study by compensating subjective qualitative method with an objective quantitative method, this helped refute where one dataset invalidates a supposition generated by another (Noble & Heale, 2019). The reporting

system makes use of audit trails in the qualitative component of the research with an in-depth approach illustrating that the findings are based on the participants' narratives (Scharp & Sanders, 2019). Data was collected using questionnaires and google forms were used, the data collected was analysed in a manner that can be verified with transparency. The thick description of the data from the respondents were classified and coded for analysis. An extract of the imported data is added at the appendix of the report showing the actual narratives the respondents gave.

4.2.2 Transferability

The capacity of the results obtained from one research to be used to other studies in diverse places or populations is referred to as transferability (Houghton, Casey, Shaw, & Murphy, 2013; Polit & Beck, 2012). The major goal of this study was to guarantee that the methods employed to achieve the results, whether qualitative, quantitative, or both, transmit an intuitive meaning to those who were not part in the actual study. This covers all potential readers, interested parties, and peer review assessors, allowing them to quickly correlate the results with their own experiences (Maxwell, 2020). This report attempted to achieve transferability by providing adequate information about the informants and providing a framework for the study so that the user may determine if the findings are applicable and reproducible. The research intended to make generalisations about risk management integration in business organisations in developing countries. Hence the report has presented the findings using the conventional factors which were evaluated in the context of risk management which can be verified and checked to be applied everywhere (Lincoln & Guba, 1985). The Research data involved the respondents from a formal structure and their responses likely comfort or represent those of their contemporaries in other parts of the developing countries outside Zambia. The data analysis provides leeway to be replicated elsewhere using the same collected data and extract templates that can be reused. The findings established herein are easily applicable in other business organisations and can be either used as secondary data or as a control as well as a literature review in another research.

4.2.3 Dependability

The word dependability in this study refers to the consistency of data in similar contexts and circumstances (Polit & Beck, 2012; Tobin & Begley, 2004). According to Koch (2006), a study is trustworthy if the study findings are duplicated with similar people under similar settings using the researcher's methods and reasoning. It is assumed that the results acquired in this study will generate comparable results when another researcher synchronises with the choice trials at each level of this research method. If the other researcher undertakes this study in either Zambia and or any other country with similar circumstances as that of this developing country, it is expected to yield results not deviated from the results presented here (Daniel, 2019). To facilitate the employment of overlapping methods for the results, the study has given an in-depth description of the methodology to allow the study to be repeated. The population of financial institutions such as banks, insurance firms, and bureau de change, as well as non-financial enterprises such as schools, retail and wholesale, real estate, and utility companies, and the sample size was calculated using this method. The last category of respondents were the Others category made up of mainly small organisations, family businesses, and mobile setups. Their executives were engaged to respond to the questionnaires on the risk management levels in their organisation. These responses allowed the study to know the distribution of risk management levels per industry, size of the firm and many other factors. A study conducted using this pattern and a similar set of data set in the developing country is expected to have resulted not very much deviated from the results herein presented.

4.2.4 Confirmability

Confirmability refers to the researcher's ability to demonstrate that the data correctly represent the responses of the participants rather than the researcher's preconceptions or viewpoints for the objectives of this research study. Tobin and Begley (2012); Polit and Beck (2012); Tobin and Beck (2012) (2004). The results of this study report were derived from an examination of the information provided by respondents in the questionnaires. The explanation of the research questions and research hypotheses was done in the context of the data provided. The conclusion drawn on each

objective was within the findings from the data provided. No external sentiments were included in the conclusions or interpretations of the research questions outside the data provided. The report has included direct quotes from the respondents especially those from the qualitative. Of course, it is admitted that the researcher added the views and beliefs based on the literature review and retained certain conventional assumptions. The audit trail as a vital approach to strengthen the credibility of qualitative research is one noteworthy method that was employed for confirmability.

An audit trail is a collection of materials and notes that document the researcher's judgments and assumptions during the research process (Cope, 2014; Ryan-Nicholls & Will, 2009). Interview transcripts, data processing as well as procedure notes, as well as drafts, were stored and saved for future reference and recordkeeping. The audit trail then was reviewed by other individuals to assess if they are also drawing the same study conclusions. The study admits that there was a challenge and shortcoming in the execution of interviews due to COVID 19 pandemic and most data were collected using structured questionnaires that do not use face-to-face interaction. Only about ten interviews were conducted and hence the data did not have that personal interaction and emotional appeal arising from personal interaction. This had an effect on the outcome of the study particularly on the emotional appeal and the actual tone but does not affect the technical aspect of the results as well as its validity. The variable constructs significantly met the assumptions of the statistical tests and there were no significant or potential weaknesses to adversely affect the interpretation or validity of the data collection and its analysis.

4.3 Validity and Reliability of data

The study took into context validity and reliability of data, which was divided into internal validity, which referred to the validity of the measurement and test itself, and external validity, which refers to the ability to generalise the findings to the target population, reaching the aspect of exchangeability (Chaplin et al. 2018; Breskin, Westreich, Cole, & Edwards, 2019). The study used a case study for Zambia as a developing country to represent or be generalised to all developing countries. Hence both internal and external validity were of utmost concern and were rated to be

highly significant in determining the efficacy, relevance, and utility of this research study. The study also had to be mindful of the importance of reliability to address the overall consistency of a research study's measurement instrument. The goal was to guarantee that the questionnaire and interview schedule utilised as data collecting devices are dependable. The instruments were designed so that researchers can yield a positive test-retest reliability check by getting similar results if they repeat their questionnaire survey on the same sample soon after and if the conditions of the situation have not changed. Hence the instruments used were both valid and reliable which can be depended upon as an accurate representation of a research concept under study. Therefore, this section critically identifies and analyses the issues related to the validity and reliability of the measurement instruments which were used in research, and it has described how they have met the validity and reliability of these measurement instruments. Below are the strategies which were used to accomplish both validity and reliability.

4.3.1 The Use of Existing Or Prior Tested Instrument

The recommended way is to use an established instrument that has been developed and verified several times (Ikart, 2019). Given this, the effort was made to consult various sources of risk management implementation level measures and come up with a compound aggregate instrument that have prior tested questions. The questions which were used in this study research instruments were thus secured from the instruments that were tested and the final design was in such a way that only appropriate modifications were made to tailor the questions to this study research aims. A combination of the questions were used by many researchers and results were published. For example, the questions on risk management capabilities, management involvement, effect of risk analysis in setting objectives, risk attitudes, tools and risk process, among others were taken from among the 29 pretested questions of the questionnaire of the research done by Abdulrahman, Ibrahim and Chindo (2019). The research was on evaluating the various levels of risk management maturity in the construction firms and especially those on the joint venture projects. The questions mostly on review of risk management procedures in banking institutions were also examined in the risk management practices research conducted in Bangladesh banks (Alam & Musukujjaman,

2011). The instruments were intended to measure the degrees of risk best practices, and they were subsequently collated and analysed the risk management practices in that country's commercial banks.. The questions on the presence or absence of the risk departments or the position of the chief risk officer, ERM integration with other plans and objectives of the firm, and formalised risk processes were all taken from the research done by Monda and Giorgino (2013). The purpose of this study was to evaluate the enterprise risk management maturity model, which included an enterprise risk management index also coined as ERMi was arrived at by adding the scores from the study responses for the particular organisation engaged. A compiled set of questions from these published works was shared with the UNICAF Research Ethics Committee (UREC) to conduct a review of the instrument, the approval was based on reviews in which the questions were then aligned to suit this model by adding a demographic data section and a few open-ended questions that linked to the questions and objectives.

4.3.2 Validity In Quantitative Research

To achieve validity in the instrumentation portfolio, there was the attention given to the validity in terms of the extent to which an instrument measures what it is supposed to measure and performs as it is designed to perform. Theoretically, validity is generally measured in degrees, but it is not usually practical for a workable instrument to be 100% valid. This was a case study and hence needed to carry a high power of generalisation to the entire scope of developing countries using the population from Zambia. In addition to the different statistical tests and metrics used to examine the validity of quantitative instruments, the approach included pilot testing to check both the external and content validity of quantitative instruments.

- (a) **External validity** is a measure of how well a study's findings can be extrapolated from a sample to a population (Baldwin, 2018). The instrument was designed and administered to serve the external validity starting with the selection of the sample. A sample was scrutinised and assessed to be accurate and a true representation of a population, as the full engagement of the entire total population was not possible. As a result, the devised instruments were

externally valid and contributed to population representativeness, and the magnitude with which a sample properly represented population characteristics was remarkable (Andrade, 2018).

- (b) Content validity** - The term "content validity" was used to describe the appropriateness of an instrument's content. Content validity refers to the degree to which portions of an assessment instrument are relevant to and representative of the targeted concept for a given assessment purpose (Almanasreh, Moles & Chen, 2019). The contents of the instruments are aimed at targeting what is desired to be measured. Hence the questions, observation logs, and probes were meant to accurately assess what the study was intended to know. It required sample questions from each component of the study objectives, as well as questions to assess them against the anticipated outcomes.

4.3.3 Reliability in quantitative research

Reliability was observed in its special light since the study was a mixed method involving both qualitative and quantitative methods. Efforts to achieve consistency on both methods was desirable. In the qualitative method, four general estimators were used to measure and assure reliability and the instrument consistency for the intended results, and these are;

- (i) **Inter-Rater/Observer Reliability:** The degree to which different raters or observers give consistent answers or estimates sometimes abbreviated to IRR (McDonald, Schoenebeck, & Forte, 2019). The instrument was subjected to a second eye to execute the results and was tested to be good.
- (ii) **Test-Retest Reliability:** The consistency of a measure evaluated over time and is a measurement theory concept that quantifies the stability of a measure under repeated measurements (Noble, Scheinost, & Constable, 2021). The instrument used was one tested under a similar study on risk maturity levels and was tested to be good.
- (iii) **Parallel-Forms Reliability:** The dependability of two tests created in the same manner and with the same material. Parallel forms of a test, according to Hilger and Beauducel (2017),

are alternative subsets of the same universe of items that capture the same characteristic with the same accuracy. This was done by the comparison with the pilot research done a month in between. The reliability test was good and harmonious.

- (iv) Internal Uniformity Cronbach's Alpha test of 78 percent was attained from a threshold set of 70 percent, indicating that the research findings were consistent across items.

4.3.4 Validity and Reliability in Qualitative Research

Due to high subjectivity, it is difficult to establish validity and reliability in qualitative research and efforts to achieve it can be less precise. To improve the validity the instrument was checked by participants or member checks. The research supervisor played the role in the peer evaluation. This is when another investigator double-checks the researcher's assumptions based on the instrument (Denzin & Lincoln, 2005). This was done to acquire credibility. However, because constructivists think that reality is unique to each individual and cannot be generalised, some qualitative researchers are said to reject the concept of validity. These researchers propose a new criterion for measuring the quality of research (Lincoln & Guba, 1985).

4.4 Results of Findings in Tabular and Graphical illustrations

In this section, there is the presentation of results following a systematic order organised by research questions and hypotheses. The section presents the results without discussion of details that involve interpretation and speculation but has only given an overview of results to briefly discuss the study overall. However, before reporting the research questions, an overview of demographic information collected and the Organisation background in tabular and graphical form is presented.

4.4.1 Demographic Information overview

The demographic section highlights the brief details and part of the biodata of the respondents from the Organisations which were involved in this research. It also presents the background information about the Organisation itself. In this section, the distribution of parameters and

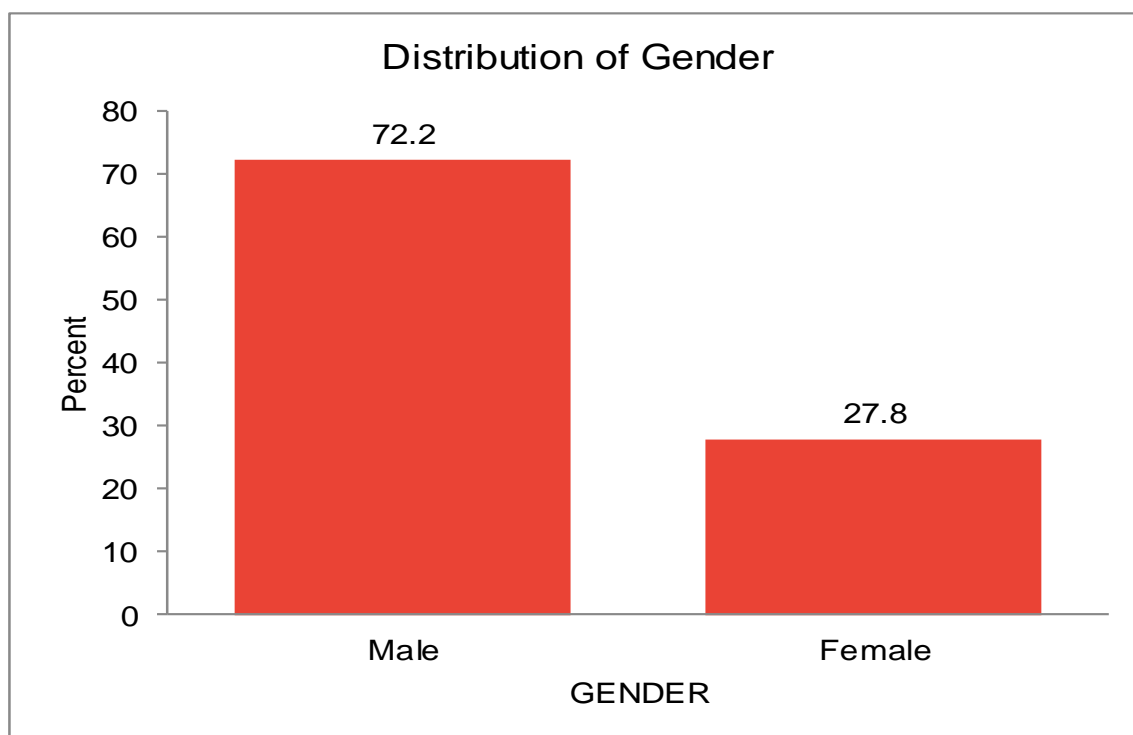
frequencies are presented. In the demographic section, the research had gathered information on the respondents' gender, age, their current position in the Organisation, the department where they are paying their services and the length of service in the Organisation. While the information on the background of the Organisation covered the industry where it operates, the size of the Organisation, whether it is regulated or not, the presence of a risk management programme, the risk department and the resources allocated towards the management of risk.

1. Gender

Figure 4.1 depicts the gender breakdown of respondents participated, with 72.2 % of all respondents being male and 27.8 % female, a ratio of four males for every female.

Figure 4.1 Gender Distribution

GENDER		
	<i>frequency</i>	<i>percent</i>
Male	114	72.2
Female	44	27.8
	158	100.0

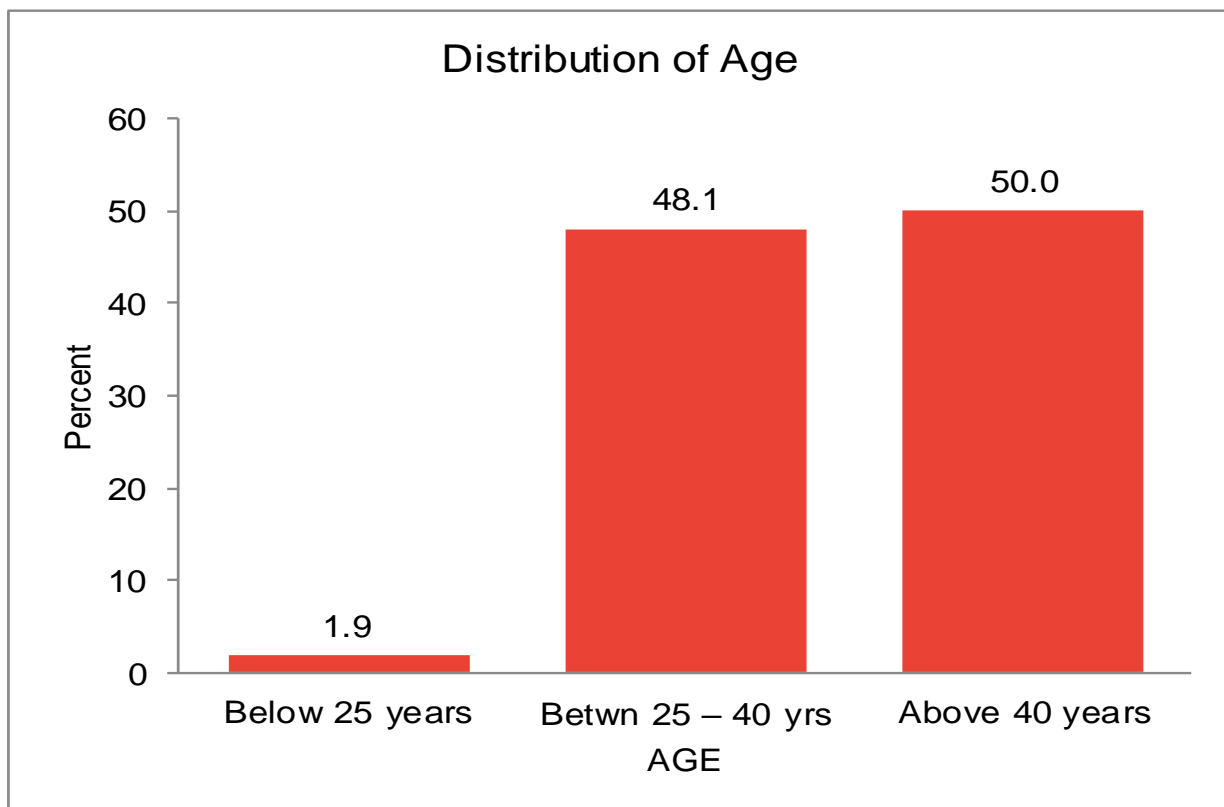


2. Age

The purpose was to establish the age distribution of respondents involved. Figure 4.2 shows that 50.0% were aged above 40 years, 48.1% were between 25 to 45 and 1.9% were 25 years.

Figure 4.2 Age Distribution

AGE		
	<i>frequency</i>	<i>percent</i>
Below 25 years	3	1.9
Betwn 25 – 40 yrs	76	48.1
Above 40 years	79	50.0
	158	100.0

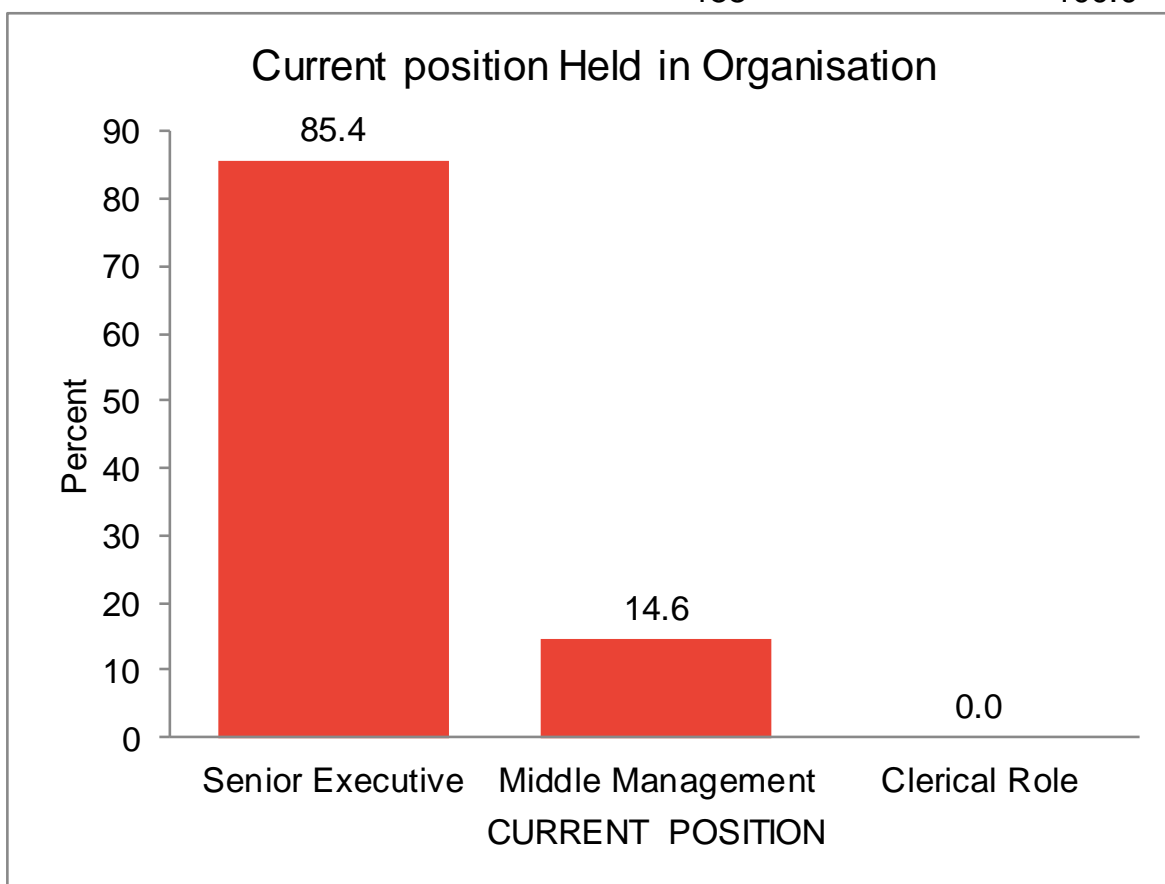


3. *Position in the Organisation*

The distribution of respondents by their role in the Organisation is as shown in Figure 4.3. The majority (85.4%) were senior executives, 14.6% middle management and none in the clerical roles.

Figure 4.3 Current Position in Organisation

CURRENT POSITION		
	<i>frequency</i>	<i>percent</i>
Senior Executive	135	85.4
Middle Management	23	14.6
Clerical Role	0	0.0
	158	100.0

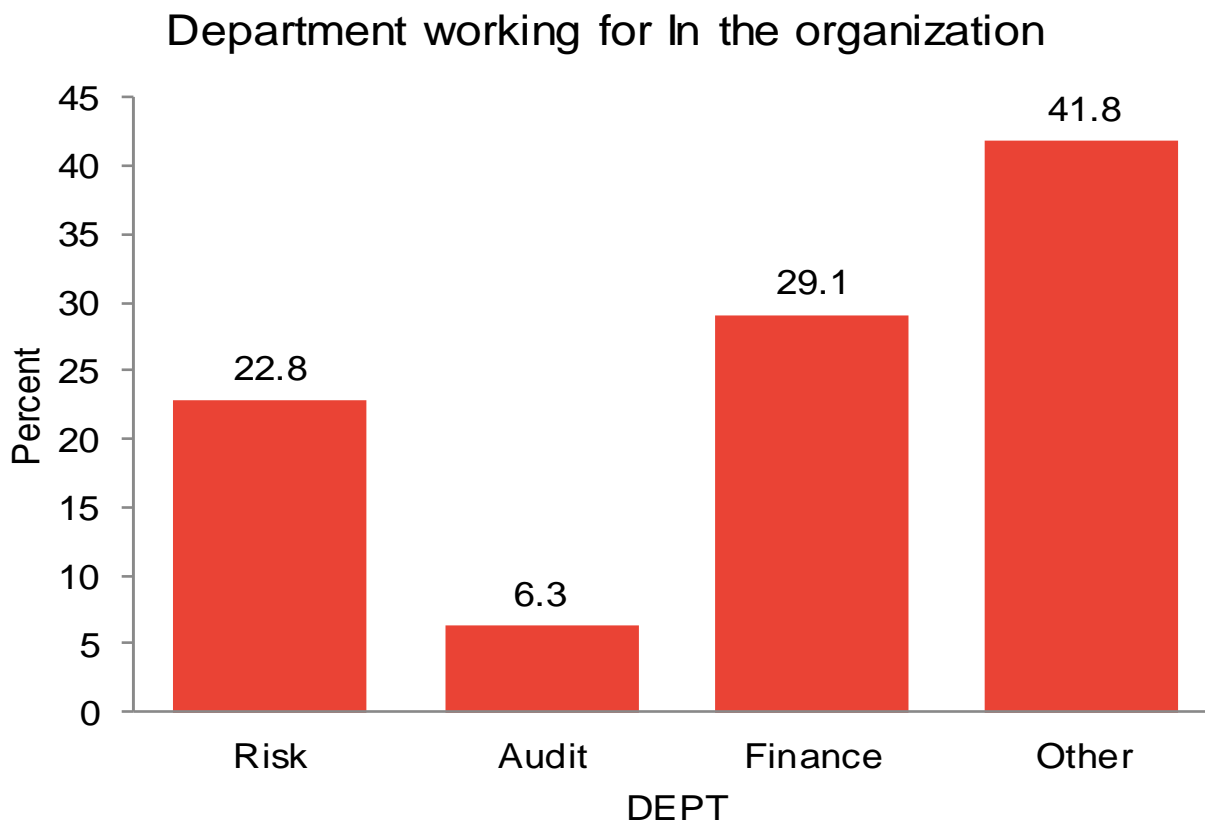


4. Department in the Organisation

The distribution of respondents by the department they are in the Organisation is shown in Figure 4.4. About one fifth (22.8%) came from Risk Department, 6.3% Audit, 29.1% Finance and almost half (41.8%) from other departments.

Figure 4.4 Department working for in the Organisation

	<i>frequency</i>	<i>percent</i>
Risk	36	22.8
Audit	10	6.3
Finance	46	29.1
Other	66	41.8
	158	100.0

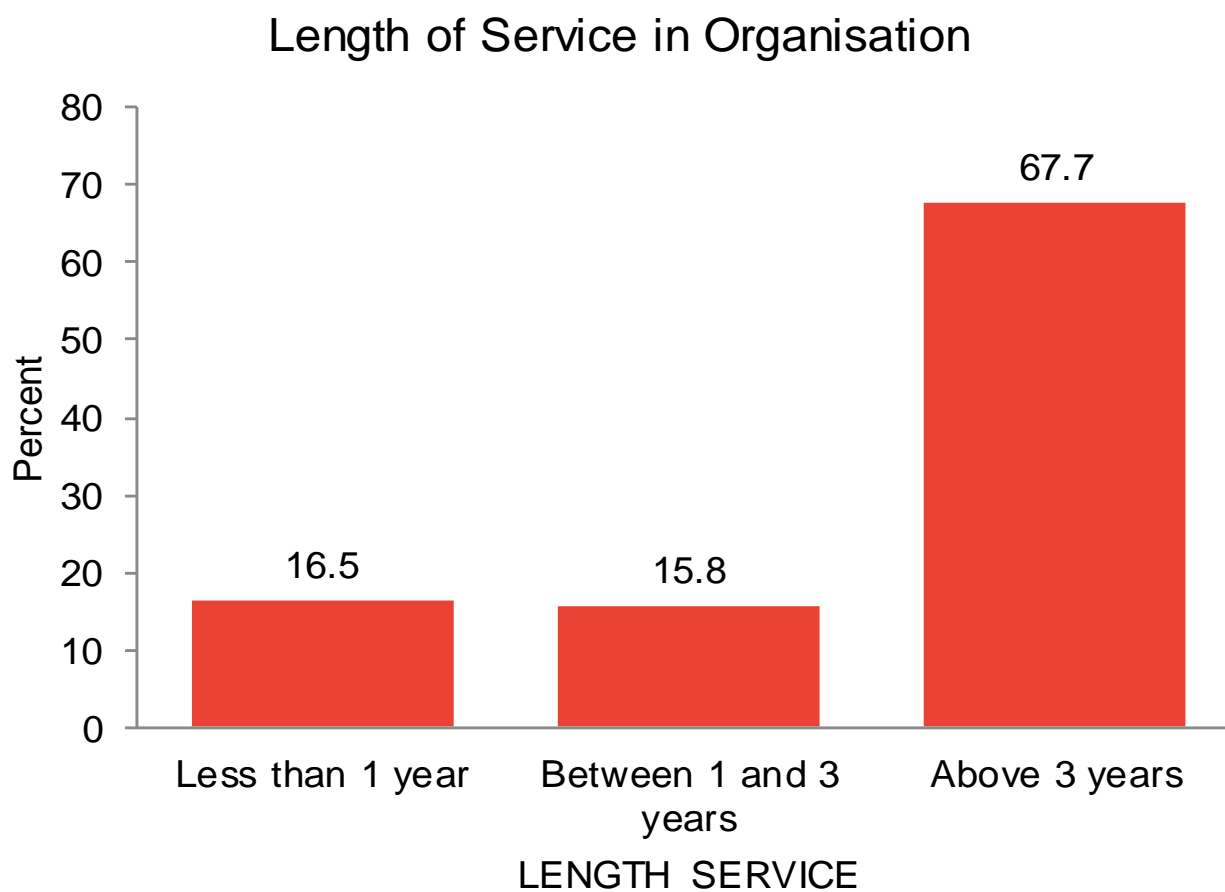


5. *Length of Service*

The length of time spent by respondents working for the Organisation is shown in Figure 4.5. About two thirds (67.7%) had worked above 3 years, 15.8% between 1 to 3 years and 16.5% had worked for less than a year. Refer to figure 4.5 for the distribution of the length of service.

Figure 4.5 Length of Service

LENGTH SERVICE		
	<i>frequency</i>	<i>percent</i>
Less than 1 year	26	16.5
Between 1 and 3 y	25	15.8
Above 3 years	107	67.7
	158	100.0



4.4.2 Organisation Background

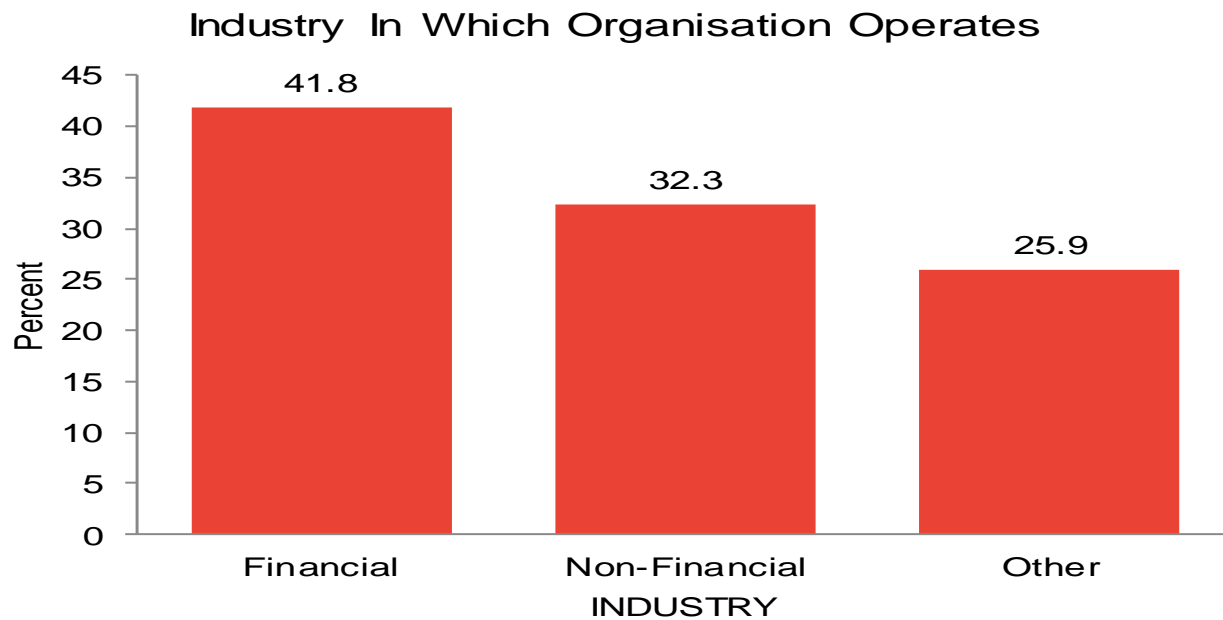
The purpose of gathering data about the Organisational background was to establish the characteristics of the Organisation that are relevant to the objectives of the research. are the findings.

1. Industry where Organisation operates

The distribution of the industry in which the Organisations involved operate is shown in Figure 4.6. From the total number of Organisations engaged in the study, 41.8% were from financial institutions. In this case, financial institutions are composed of banks, non-bank financial institutions, bureau de change, insurance companies and building societies. About one third (32.3%) of the Organisations were from non-financial institutions and 25.9% were from various sectors classified as other.

Figure 4.6 Distribution of Industry/Sector

INDUSTRY		
	<i>frequency</i>	<i>percent</i>
Financial	66	41.8
Non-Financial	51	32.3
Other	41	25.9

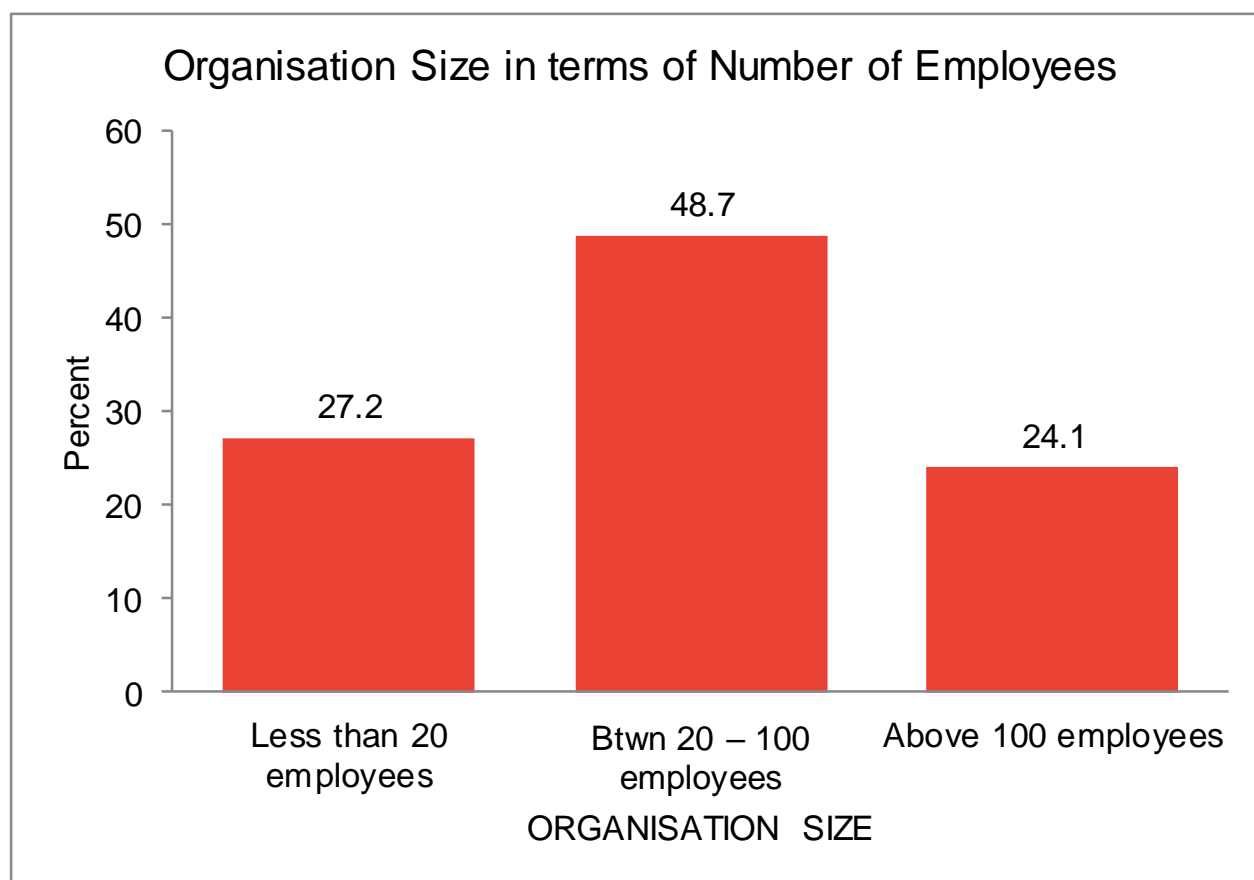


2. Size of Organisation

The number of employees in the organisation was used to determine its size. Figure 4.7 shows that almost half (48.7%) of the respondents were from Organisations from medium size 20 to 100 employees, about one quarter (27.2%) from small size with less than 20 employees and about another quarter (24.1%) from big Organisations above 100 employees.

Figure 4.7 Organisation Size

ORGANISATION SIZE		
	<i>frequency</i>	<i>percent</i>
Less than 20 employees	43	27.2
Btwn 20 – 100 employees	77	48.7
Above 100 employees	38	24.1
	158	100.0



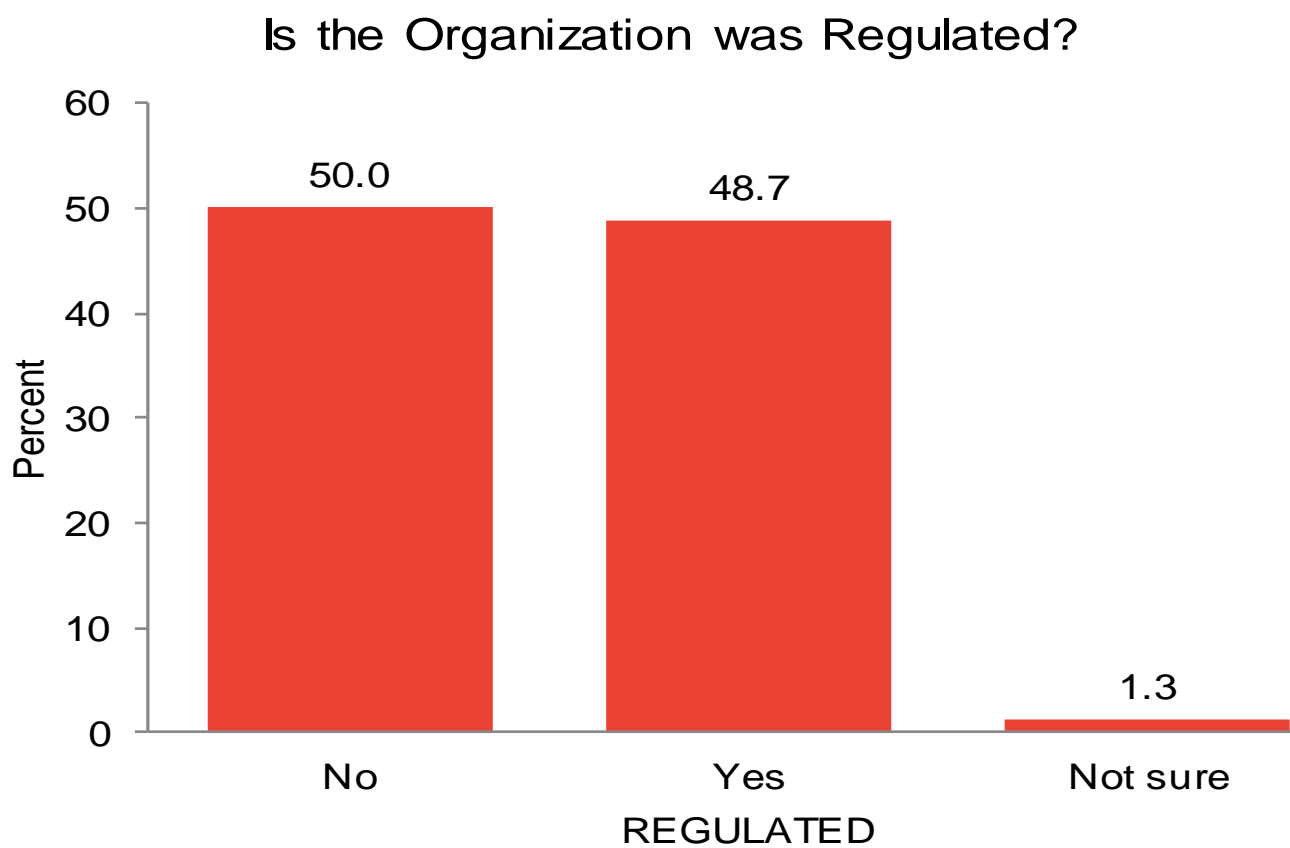
3. Organisations under regulation

The distribution of the Organisations engaged in terms of whether they are regulated by some regulatory authority or not is shown in figure 4.8. From the total Organisations engaged 50.0%

were not under some authority regulation while 48.7% were under strict regulation, 1.3% were not sure of being under any regulation.

Figure 4.8 Organisations Regulated

REGULATED		
	<i>frequency</i>	<i>percent</i>
No	79	50.0
Yes	77	48.7
Not sure	2	1.3
	158	100.0



4. Risk Management Programme in the Organisation

In Figure 4.9, 62.7% of all respondents acknowledged to not having a planned risk management program in place, 27.8 % had a risk management programme consciously placed and managed while about one-tenth (9.5%) only had a likeness of it or nothing at all.

Figure 4.9 Presence of Risk Management Programme in Organisation

RM PROGRAMME		
	<i>frequency</i>	<i>percent</i>
No	99	62.7
Yes	44	27.8
Somehow	15	9.5
	158	100.0

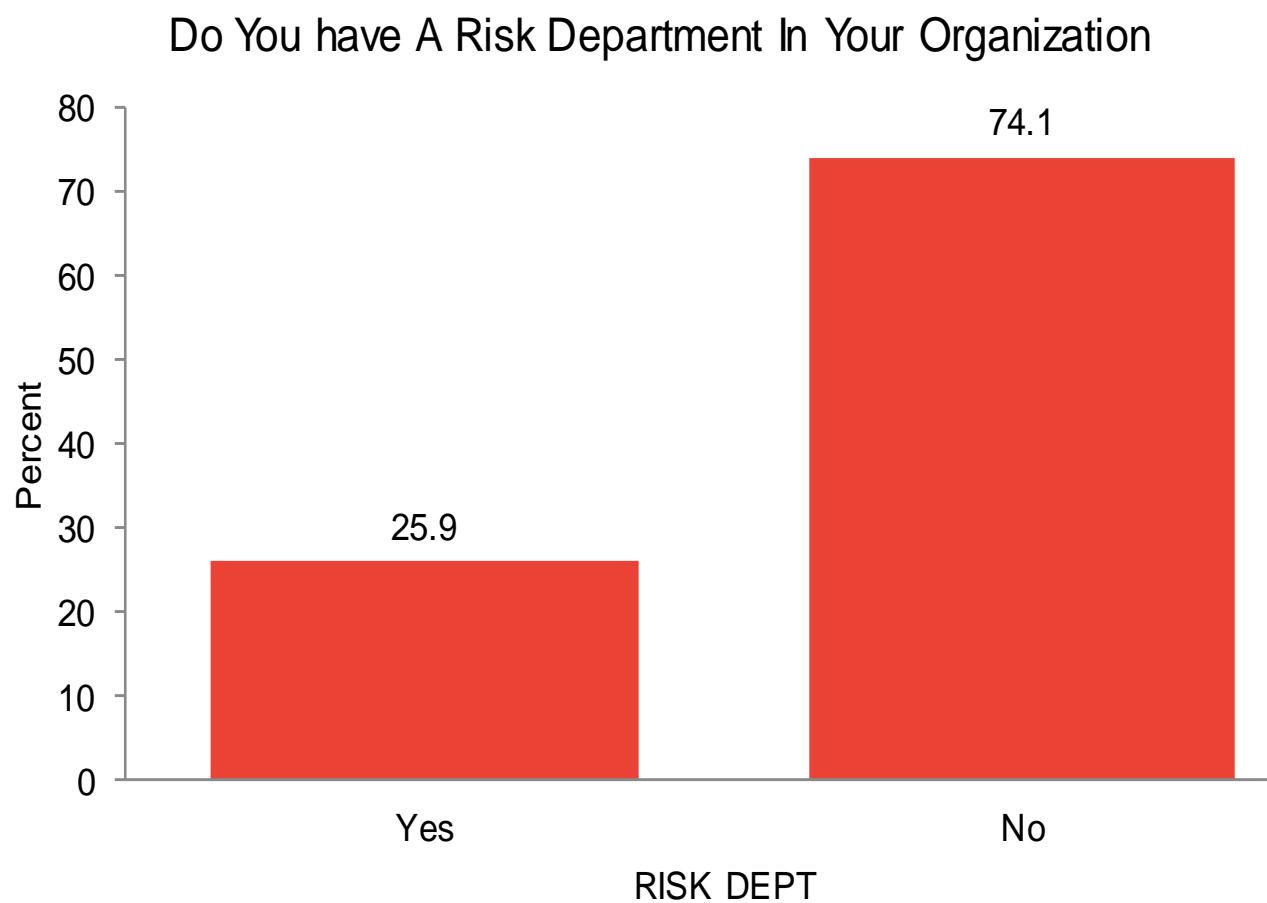


5. Risk Department in the Organisation Structure

Refer to Figure 4.9 which shows that only about a quarter (25.9%) of the Organisations engaged said they have a risk department in their Organisation while about three quarters (74.1%) did not have a risk unit in their organisation.

Figure 4.10 Risk Department in the Organisation

RISK DEPT		
	<i>frequency</i>	<i>percent</i>
Yes	41	25.9
No	117	74.1
	158	100.0

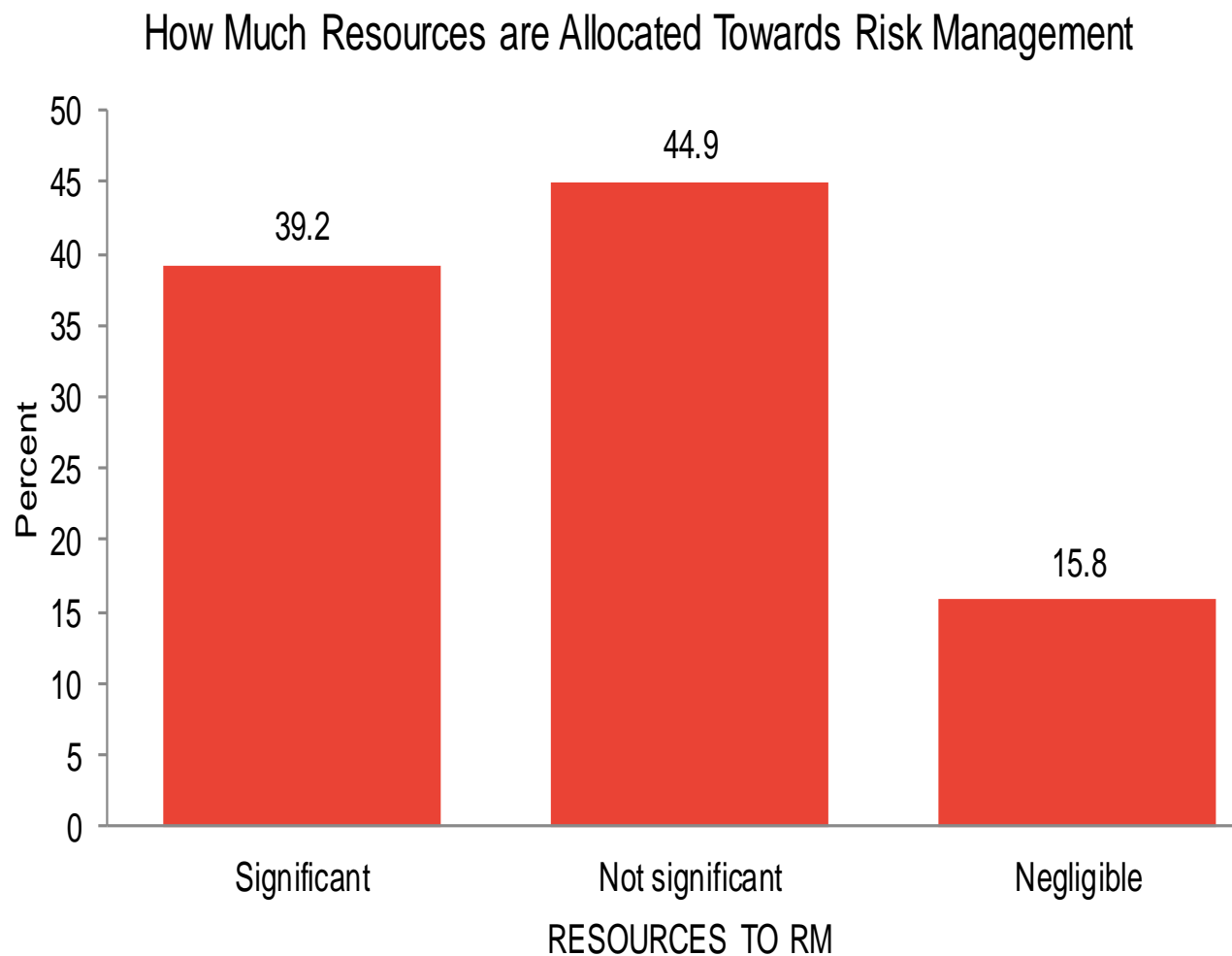


6. Resources Allocated towards Risk Management

Figure 4.11 shows that almost half (46.5%) of the Organisations engaged did not allocate resources for managing risk, 38.1% dedicated resources towards risk management. Slightly above one-tenth (15.6%) had a negligible budget portion for risk management.

Figure 4.11 Resource Allocation towards Risk Management

Significant	62	39.2
Not significant	71	44.9
Negligible	25	15.8
	158	100.0



4.4.3 Results Presentation on Research Objectives, Questions and Hypotheses

The specific objectives of the research were;

- a. To ascertain if there is a allocation of resources in the budget towards the management of risks by business organisations in Zambia and other developing countries.
- b. To establish the factors that strongly influence the integration of risk management in business organisations in Zambia and other developing countries.
- c. To determine whether business organisations have internal risk frameworks that comply with international risk guidelines in Zambia and other developing countries.
- d. To determine the extent of risk management integration across different firms and industries in Zambia and other developing countries.
- e. To establish if the business organisations in Zambia and other developing countries have formalised risk management structures.

Arising from these objectives were the research questions which were;

- a. Is there a proportion of resources in the budget allocated towards risk management by business organisations in Zambia and other developing countries?
- b. What significant factors influence the integration of risk management in business organisations in Zambia and other developing countries?
- c. Do business organisations have internal risk frameworks complying with international risk guidelines in Zambia and other developing countries?
- d. What is the extent of risk management integration across different firms and industries in Zambia and other developing countries?
- e. Are there formalised risk management structures integrated into the business organisations in Zambia and other developing countries?

The presuppositions stated as Null (H_0) hypotheses were;

Hypothesis 1

H_0 : There is no proportion of resources in the budget allocated towards risk management by business organisations in Zambia and other developing countries.

Hypothesis 2

H_0 : The extent to which risk management is integrated into the Organisation is not influenced by the industry where a firm operates in Zambia and other developing countries.

Hypothesis 3

H_0 : business organisations in Zambia and other developing countries do not have internal risk frameworks that comply with international risk management standards.

Hypothesis 4

H_0 : There is no positive relationship between a firm's size and the extent of risk management integration in Zambia and other developing countries.

Hypothesis 5

H_0 : There is no relationship between a firm's size and the extent of risk management integration in Zambia and other developing countries.

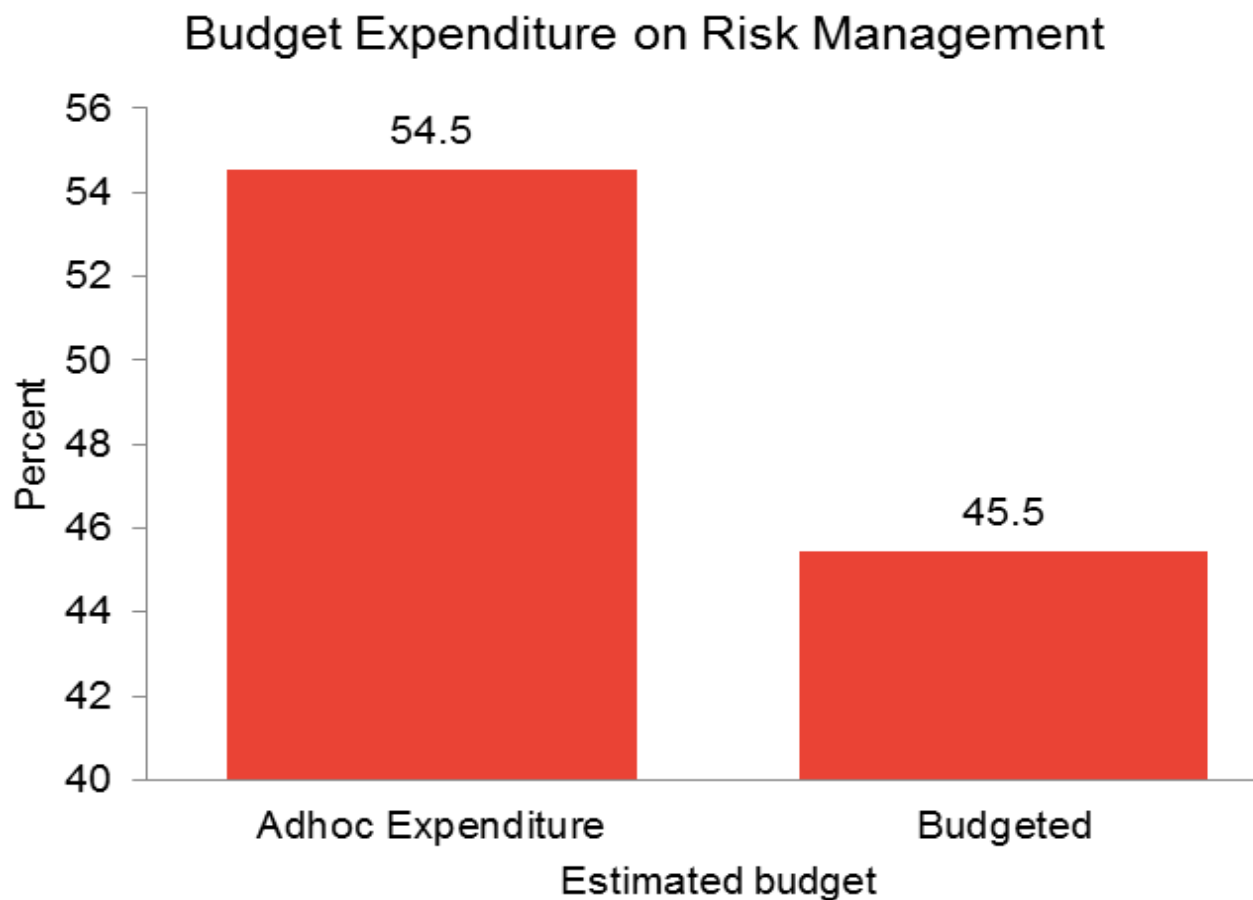
4.4.4 Findings on Research Objective, Question and Hypothesis 1

Research Objective 1: To ascertain if there is a proportion of resources in the budget allocated towards management of risks by business organisations in Zambia and other developing countries.

Research Question 1: Is there a proportion of resources in the budget allocated towards risk management by business organisations in Zambia and other developing countries?

When all categories of organisations combined are assessed, about 54.5% declined ever allocating any resources on their budget lines while 45.5% of those interviewed indicated that their budget has an expense line reserved for risk management. See figure 4.12.

Figure 4.12 Budgeted Expenditure on Risk Management



In addition, when a cross-tabulation was run for all the types of firms involved, it was seen that the firms from the financial sector had more observed values on budgeted than expected as compared to ad-hoc expenditure. The opposite was the case with Non-Financial and Other firms who showed an expected value exceeding the actual observed for budgeted more on observed than

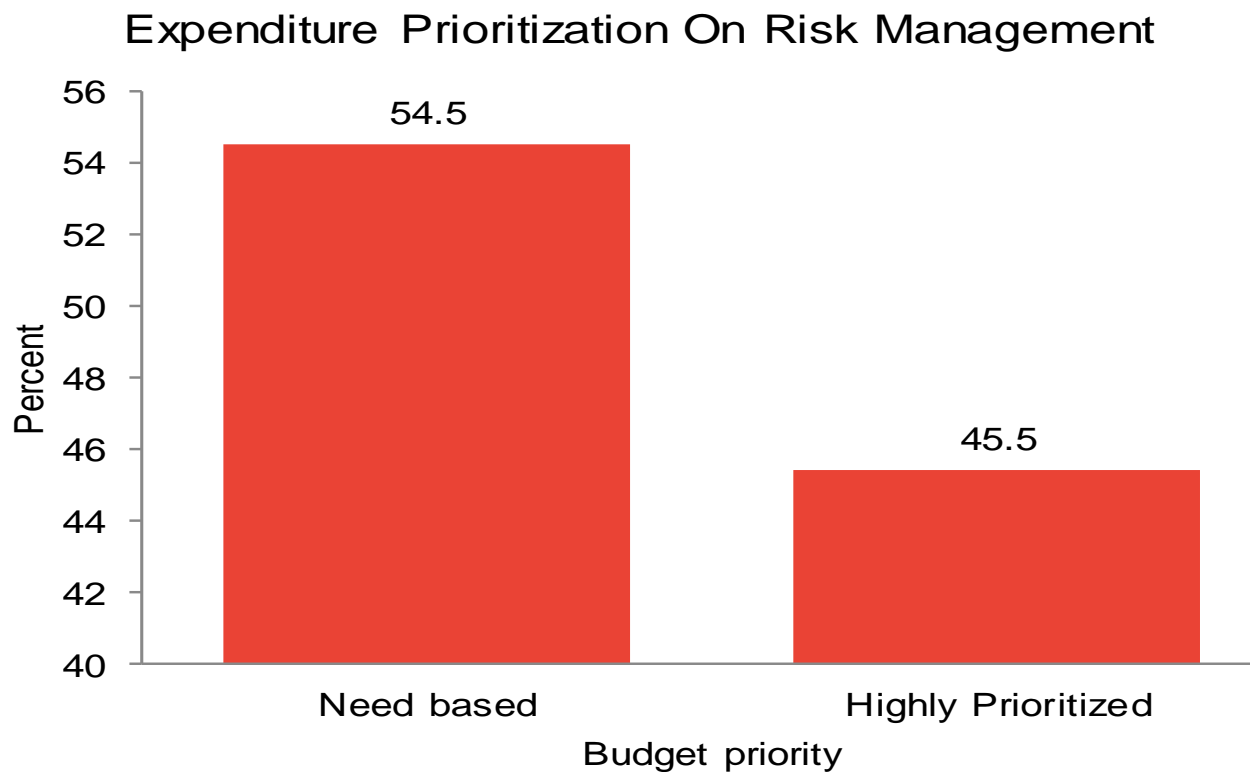
expected on ad hoc expenditure. Refer to Table 4.1 for the distribution of the expenditure on risk management in Organisations engaged.

Table 4.1 Budgeted vs Adhoc Expenditure on Risk Management

		Estimated budget		Total
		Adhoc Expenditure	Budgeted	
Financial	Observed	3	3	6
	Expected	3.27	2.73	6.00
	% of row	50.0%	50.0%	100.0%
	% of column	50.0%	60.0%	54.5%
	% of total	27.3%	27.3%	54.5%
Non-Financial	Observed	2	1	3
	Expected	1.64	1.36	3.00
	% of row	66.7%	33.3%	100.0%
	% of column	33.3%	20.0%	27.3%
	% of total	18.2%	9.1%	27.3%
Other	Observed	1	1	2
	Expected	1.09	0.91	2.00
	% of row	50.0%	50.0%	100.0%
	% of column	16.7%	20.0%	18.2%
	% of total	9.1%	9.1%	18.2%
Total	Observed	6	5	11
	Expected	6.00	5.00	11.00
	% of row	54.5%	45.5%	100.0%
	% of column	100.0%	100.0%	100.0%
	% of total	54.5%	45.5%	100.0%

The same pattern was seen on the prioritisation for all the firms engaged, 45.5% gave a high priority of the resources towards risk management in their budget while 54.5% only attached need-based importance to it. Refer to Figure 4.13 for the distribution of the said findings.

Figure 4.13 Priority on Budget



After establishing the overall distribution of the budget priorities and the allocation of expenditure proportion on risk management in the budget, the focus was now on the business organisations as compared to the other firms in the hypothesis tests.

Hypothesis 1

H₀: There is no proportion of resources in the budget allocated towards risk management by business organisations in developing countries.

In this test, there was a need to compare the relationship between two categorical variables (Industry type category variable and the resources allocated in budget). To investigate connections between these categorical variables, a Chi-Square analysis was employed, with the null hypothesis

of the Chi-Square test being that no link exists on the category variables in the population; or that they are independent. Otherwise, the observed values are statistically significant. A p-value between 0 and 1 is used to convey statistical significance in this situation. The lower the p-value, the more evidence there is to reject the null hypothesis, according to conventional wisdom. A p-value of more than 0.05 (> 0.05) is considered non-statistically significant and suggests strong support for the null hypothesis (Shrestha, 2019); otherwise, the null hypothesis is rejected.

A cross-tabulation from a chi-square analysis is shown below in the table for resource allocation towards risk management to indicate the distribution of the various businesses engaged in terms of their budgetary allocation for risk management. Table 4.2 shows that 43 out of 66 or 65.2% of the financial institutions allocate resources towards risk management while only 12 out of 51 non-financial institutions or 23.5% allocate resources towards risk management and only 17% from others assign resources towards risk management.

With 4 degrees of freedom (df) the **P-value is $1.57e^{-0.7}$ or 0.0014 ($P < 0.05$) and reject the null hypothesis to** accept the alternative hypothesis that the figures are not out of mere chance and hence there is a proportion of resources in the budget allocated towards risk management by business organisations in developing countries.

The **Phi coefficient** which measures the degree of association is 0.486 that is moderate to a strong association between variables and **Cramer's V statistic is 0.343** that falls in the moderately associated category by conventional standards

Table 4.2 Resource Allocation towards Risk Management**Crosstabulation**

		RESOURCES TO RM				
		Significant	Not significant	Negligible	Total	
INDUSTRY	Financial	Observed	43	20	3	66
		% of row	65.2%	30.3%	4.5%	100.0%
		% of column	69.4%	28.2%	12.0%	41.8%
		% of total	27.2%	12.7%	1.9%	41.8%
	Non-Financial	Observed	12	30	9	51
		% of row	23.5%	58.8%	17.6%	100.0%
		% of column	19.4%	42.3%	36.0%	32.3%
		% of total	7.6%	19.0%	5.7%	32.3%
	Other	Observed	7	21	13	41
		% of row	17.1%	51.2%	31.7%	100.0%
		% of column	11.3%	29.6%	52.0%	25.9%
		% of total	4.4%	13.3%	8.2%	25.9%
Total	Observed	62	71	25	158	
	% of row	39.2%	44.9%	15.8%	100.0%	
	% of column	100.0%	100.0%	100.0%	100.0%	
	% of total	39.2%	44.9%	15.8%	100.0%	

37.28 chi-square

4 df

1.58E-07 p-value

.486 Phi coefficient

.437 Coefficient of Contingency

.343 Cramér's V

Summary decision: Reject Null and Accept Alternative hypotheses**Association:** Moderately to Strong association of variables (Phi, Cramer's V)**Qualitative assessment from the interviews**

The majority of the respondents from the non-financial institutions indicated that they rarely allocate resources to manage risk in their Organisations or unless there is a good reason or strong need to do so but on Adhoc. Some of the verbatim responses from the interviews were;

Question: How much resources from your Organisation budget are allocated towards risk management?

Interviewee 2 (Male, 38 Senior Management): *“Much is allocated if necessary but there is no standard” The expenditure is done when we see the need. (From Non-financial Institution).*

Interviewee 8 (Male, 48 Director): *“No specific budget line for risk management..... expenditure is done as part of activities on the market, training and managing the changes Can go up to “about 30% of the budget” (From Non - Financial Institution)*

While almost all financial institutions were explicit in budget allocation and one interviewee responded that *“We allocate about 15% of our total yearly allocation” (From Financial Institution, Interviewee 3, Female 36, Senior Management).*

4.4.5 Research Objective, Question and Hypothesis 2

Research Objective 2. To establish the factors that strongly influence the integration of risk management in business organisations in Zambia and other developing countries.

Research Question 2. What significant factors influence the integration of risk management in business organisations in Zambia and other developing countries?

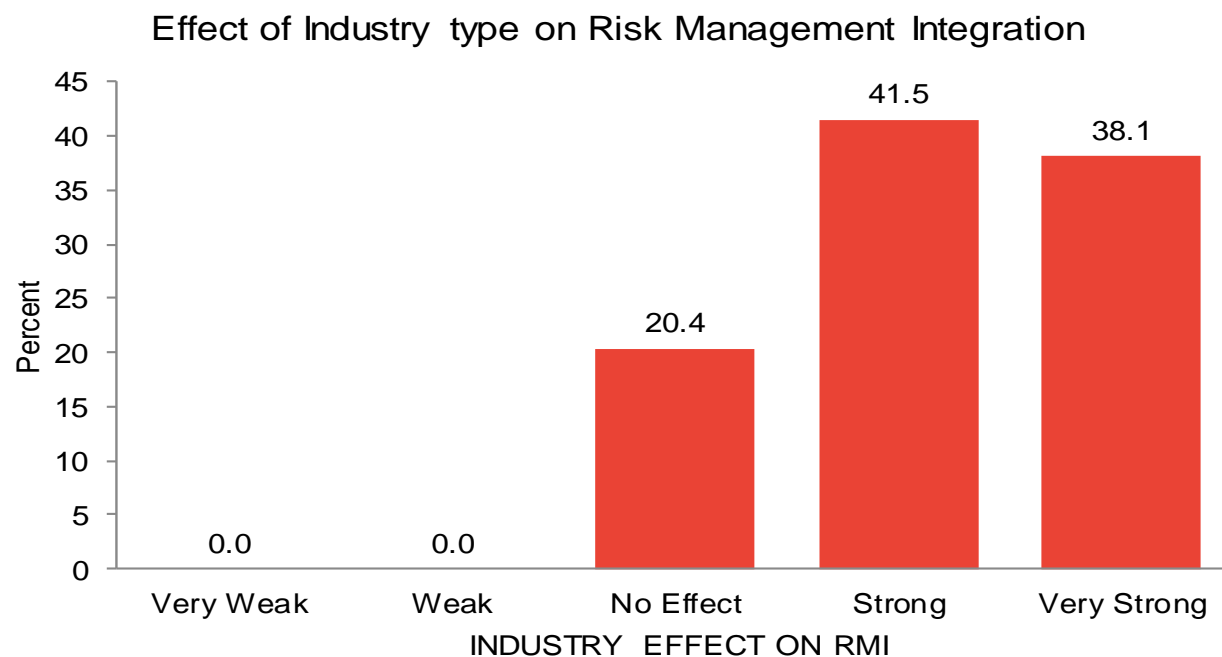
The conceptual framework highlighted a number of aspects that might have an impact on the integration of risk management in organisations. The data acquired was subjected to substantial testing, and the results are the findings highlighted in this report.

1. Industry type

The results showing the perceived influence of industry type on risk management integration (RMI) is indicated in Figure 4.14. It was established that 20.4% felt that industry type does not affect the RMI, 41.5% indicated that it has a strong effect, 38.1% that industry type has a very strong influence on RMI while none indicated a weak or very weak influence.

Figure 4.14 Effect of Industry Type on RMI

INDUSTRY EFFECT ON RMI		
	<i>frequency</i>	<i>percent</i>
Very Weak	0	0.0
Weak	0	0.0
No Effect	30	20.4
Strong	61	41.5
Very Strong	56	38.1
	147	100.0



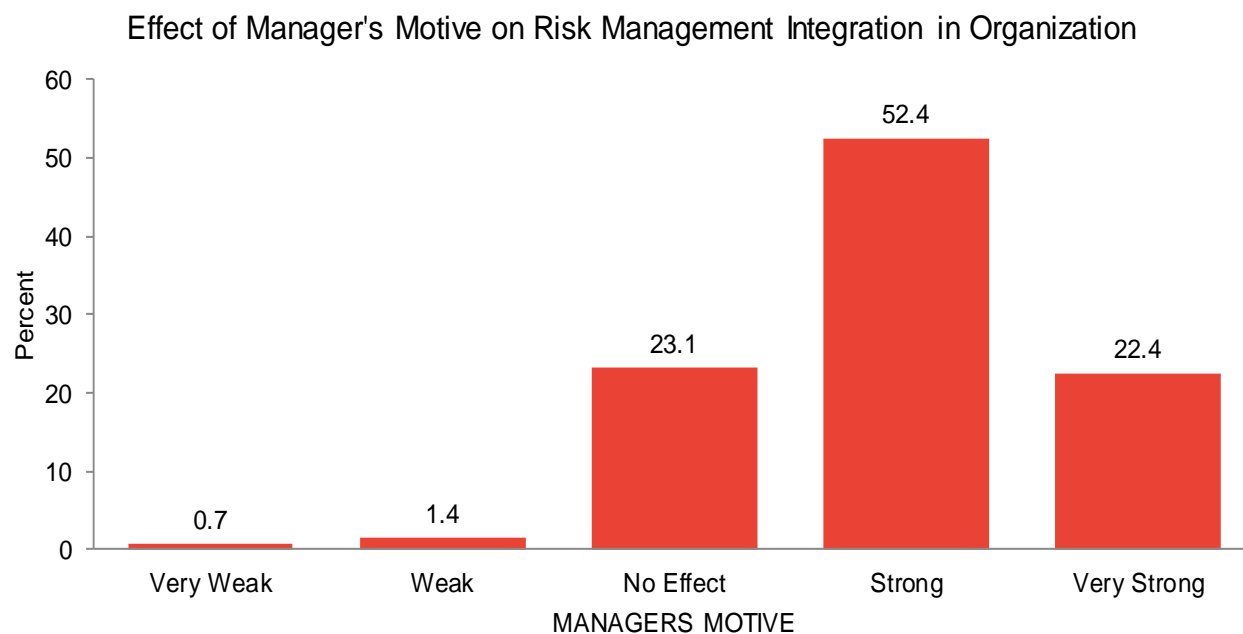
2. Managers Motive

The results on the influence of managers' motive (whether to serve self-interest or those of Organisation) on Organisations risk management integration (RMI) is as shown in Figure 4.15.

About one fifth or 22.4% felt that there is a very strong relationship between the motive of the managers and the RMI in an Organisation and over half or 52.4% felt there is a strong influence. Slightly above one fifth or 23.1% said the manager's motive does not influence the degree to which risk management will be integrated into an Organisation while traces of respondents rated the influence to be weak (1.4%) and very weak (0.7%).

Figure 4.15 Effect of Manager's Motives on RMI

MANAGERS MOTIVE		
	<i>frequency</i>	<i>percent</i>
Very Weak	1	0.7
Weak	2	1.4
No Effect	34	23.1
Strong	77	52.4
Very Strong	33	22.4
	147	100.0

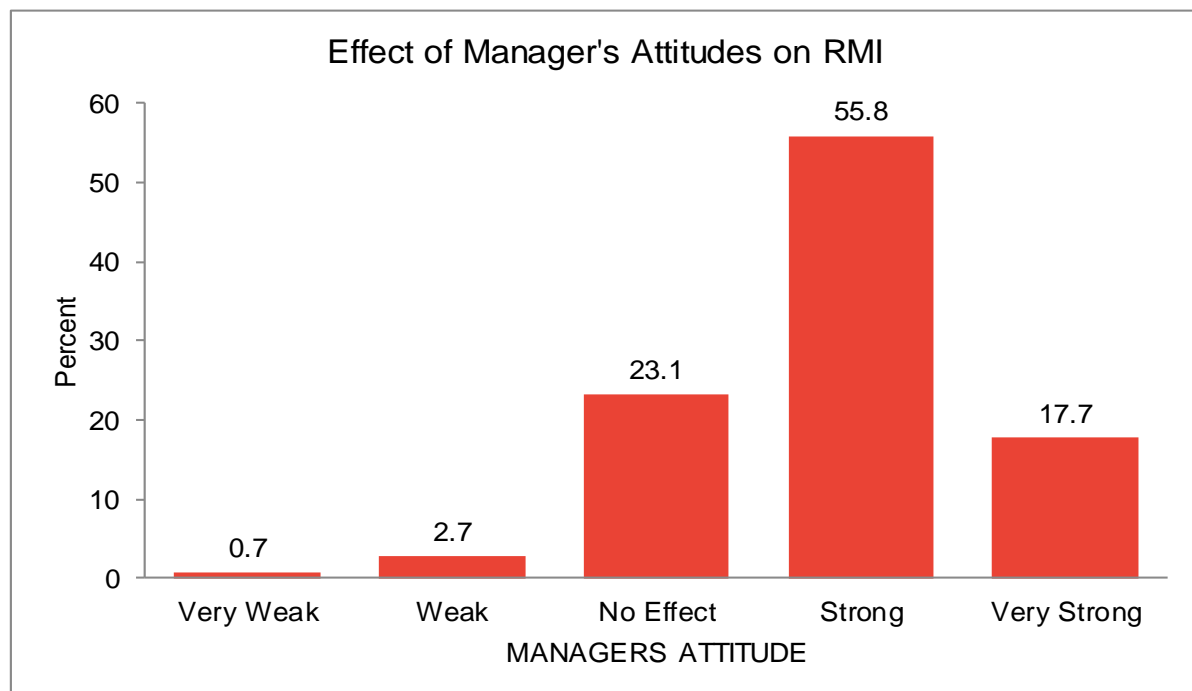


3. Manager's Attitude

The influence of managers' attitude towards risk (takers, averse, neutral) on Organisations risk management integration (RMI) is as shown in Figure 4.16. Close to one fifth or 17.7% felt that the attitude of managers toward risk-taking and the RMI in an organisation have a very significant link and over half or 55.8% felt there is a strong influence. About one fifth or 23.1% said the manager's attitude does not influence the degree to which risk management will be integrated into an Organisation while very few of respondents rated the influence to be weak (2.7%) and very weak (0.7%).

Figure 4.16 Effect of Manager's Attitude on RMI

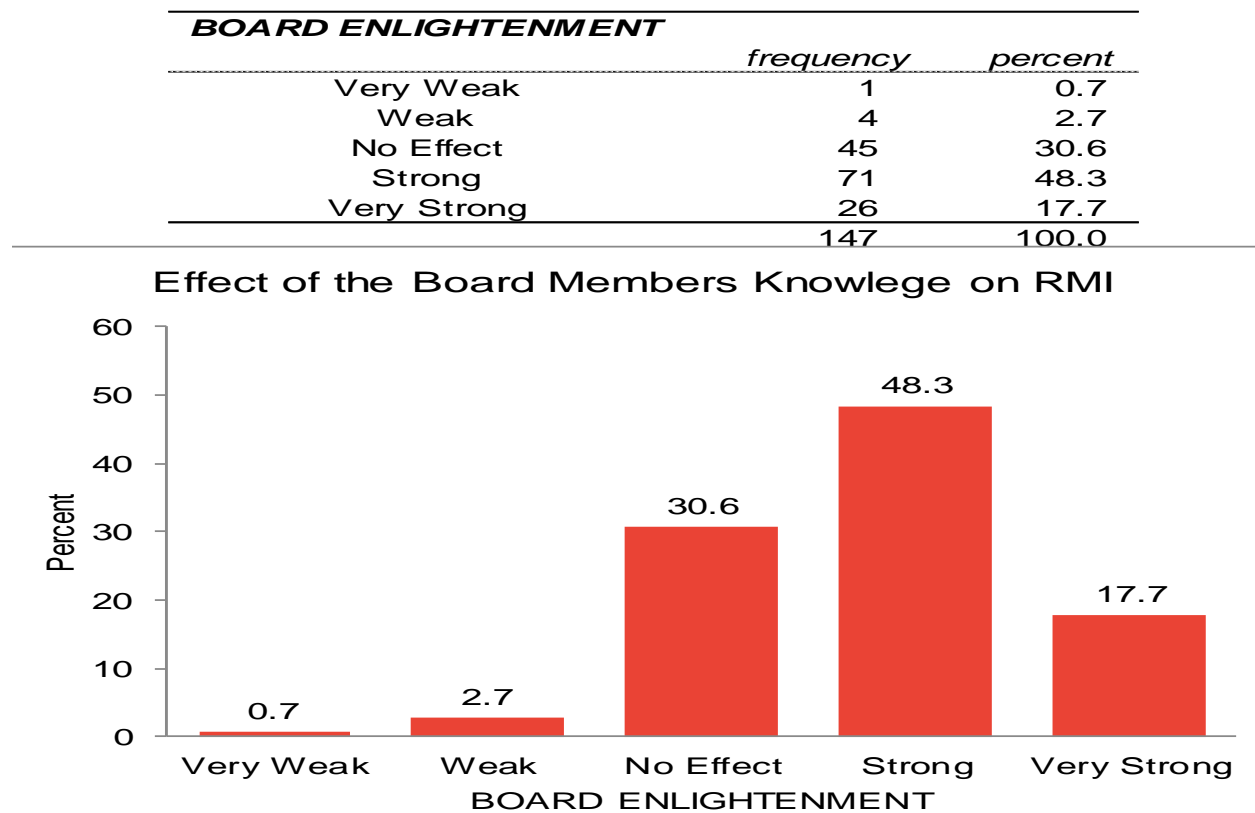
MANAGERS ATTITUDE		
	<i>frequency</i>	<i>percent</i>
Very Weak	1	0.7
Weak	4	2.7
No Effect	34	23.1
Strong	82	55.8
Very Strong	26	17.7
	147	100.0



4. Board Insight

When the board is given accurate information about the risk profile of the Organisation the effect it will have on the risk management integration was subjected to scrutiny as shown in Figure 4.17, 17.7% felt that there is a very strong influence on RMI, 48.3% felt there is a strong influence. About one third or 30.6% said the board knowledge about the risk profile of the Organisation does not affect RMI. A trace of respondents felt that there is a weak (2.7%) and very weak (0.7%) influence of the board insight on RMI.

Figure 4.17 Effect of Enlightened Board on RMI

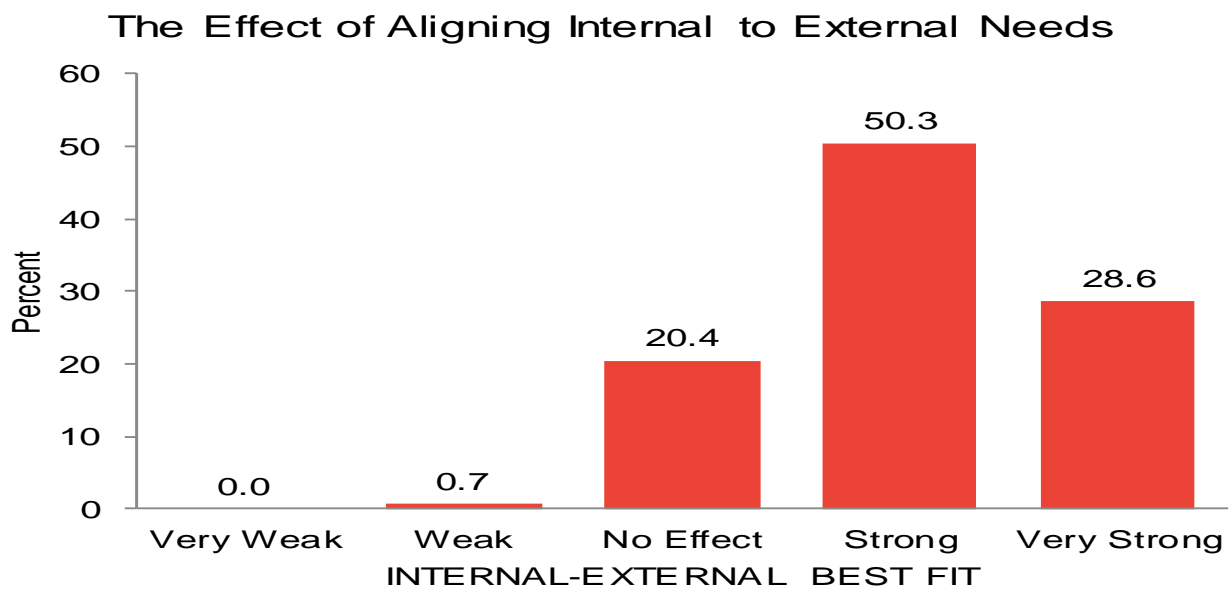


5. Internal – External Best fit

When an Organisation wants to respond to the dictates of the environment, then it will possibly need to manage its risk in line with the needs of the external environment. Figure 4.18 shows the results from the data collected and it has indicated that close to one third or 28.6% reported that the Organisation in need of fitting its internal to the external environment will be very strongly influenced to integrate risk management in its operational process, half or 50.3% said there will be a strong influence on Organisation RMI, one fifth or 20.4% said there will is no effect and 0.7% said there will be the weak effect, but no one (0.0%) said there will be a very weak relationship between internal-external fit and RMI in Organisation.

Figure 4.18 Internal - External Effect on RMI

INTERNAL-EXTERNAL BEST FIT		
	<i>frequency</i>	<i>percent</i>
Very Weak	0	0.0
Weak	1	0.7
No Effect	30	20.4
Strong	74	50.3
Very Strong	42	28.6
	147	100.0

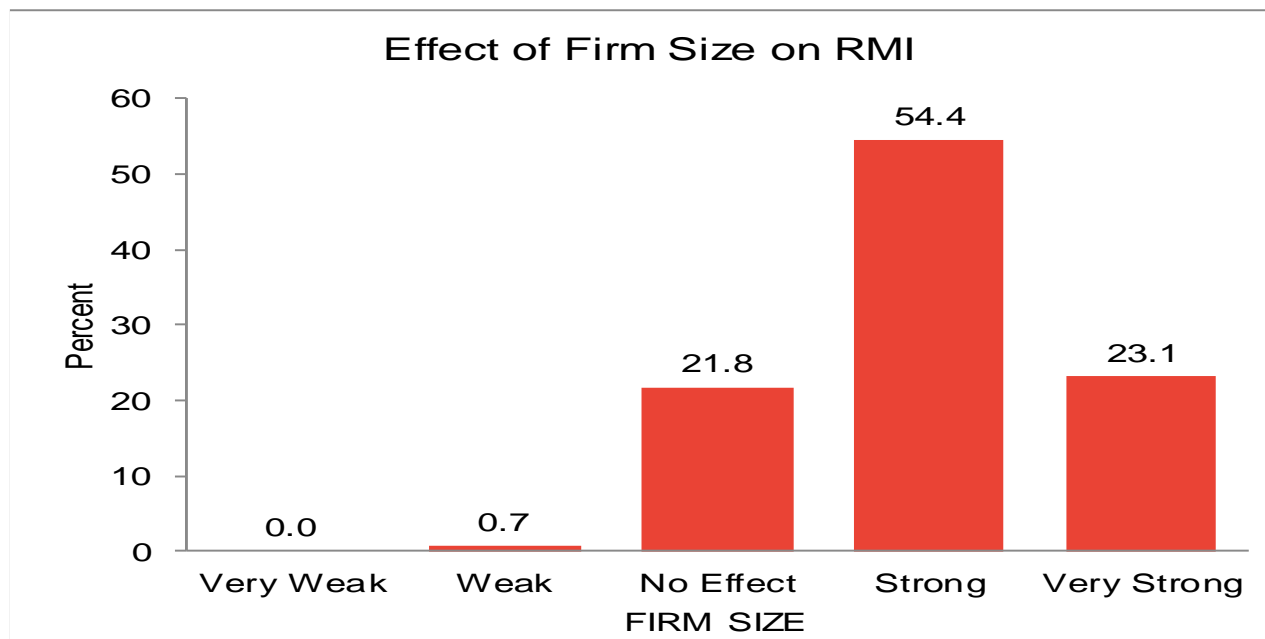


6. Firm Size

The influence of Organisation size (in terms of space and number of employees) towards Organisations risk management integration (RMI) is as shown in Figure 4.19. Slightly above one fifth or 23.1% felt that there is a very strong relationship between the firm size and the RMI in an Organisation and over half or 54.4% said their Organisation size strongly influence the extent of RMI. About one fifth or 21.8% said that their Organisation size has no influence on the degree to which risk management is integrated into the Organisation while 0.7% said there is a weak effect, and none (0%) reported a very weak relationship.

Figure 4.19 Effect of Firm Size on RMI

FIRM SIZE		
	<i>frequency</i>	<i>percent</i>
Very Weak	0	0.0
Weak	1	0.7
No Effect	32	21.8
Strong	80	54.4
Very Strong	34	23.1
	147	100.0

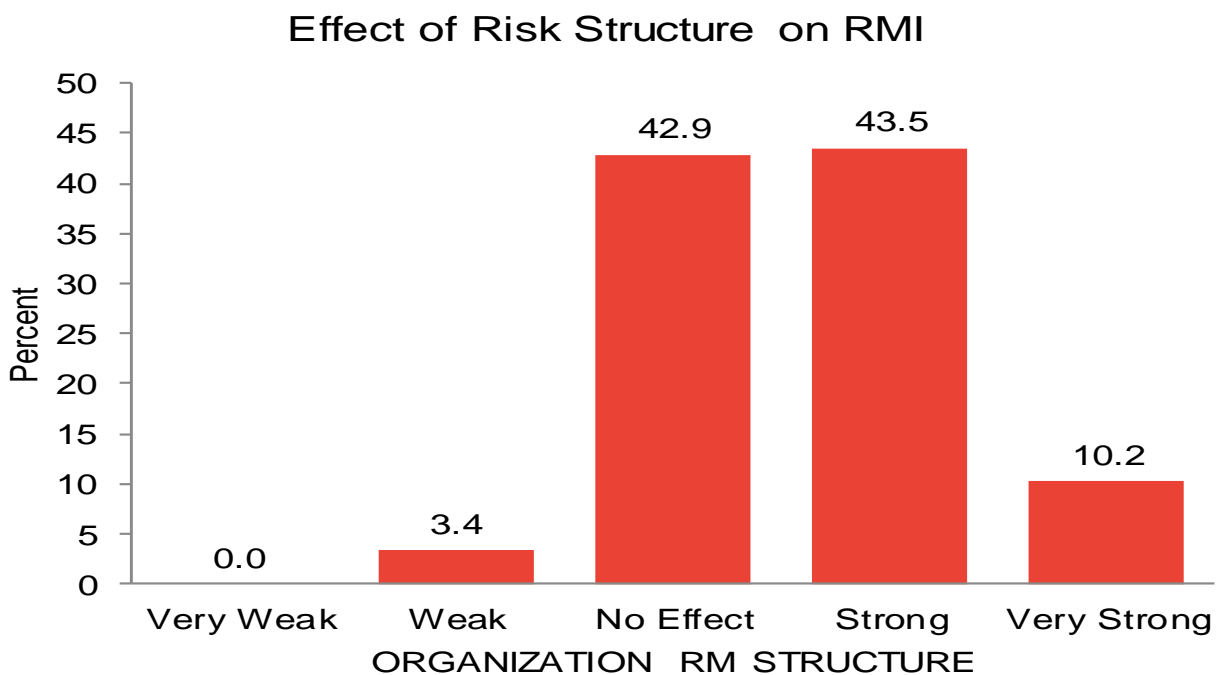


7. Organisation Structure

The influence that the presence of risk management structure has on risk management integration was found to be shown in figure 4.20. Of the respondents engaged 43.5% and 10.2% indicated that there is a strong and very strong influence that the presence of a risk structure has on RMI respectively while 42.9% said that there is no effect a risk structure will have on the RMI. While 3.4% cited a weak relationship, none (0%) indicated a very weak relationship on RMI.

Figure 4.20 Risk Structure Effect on RMI

ORGSN RM STRUCTURE		
	<i>frequency</i>	<i>percent</i>
Very Weak	0	0.0
Weak	5	3.4
No Effect	63	42.9
Strong	64	43.5
Very Strong	15	10.2
	147	100.0

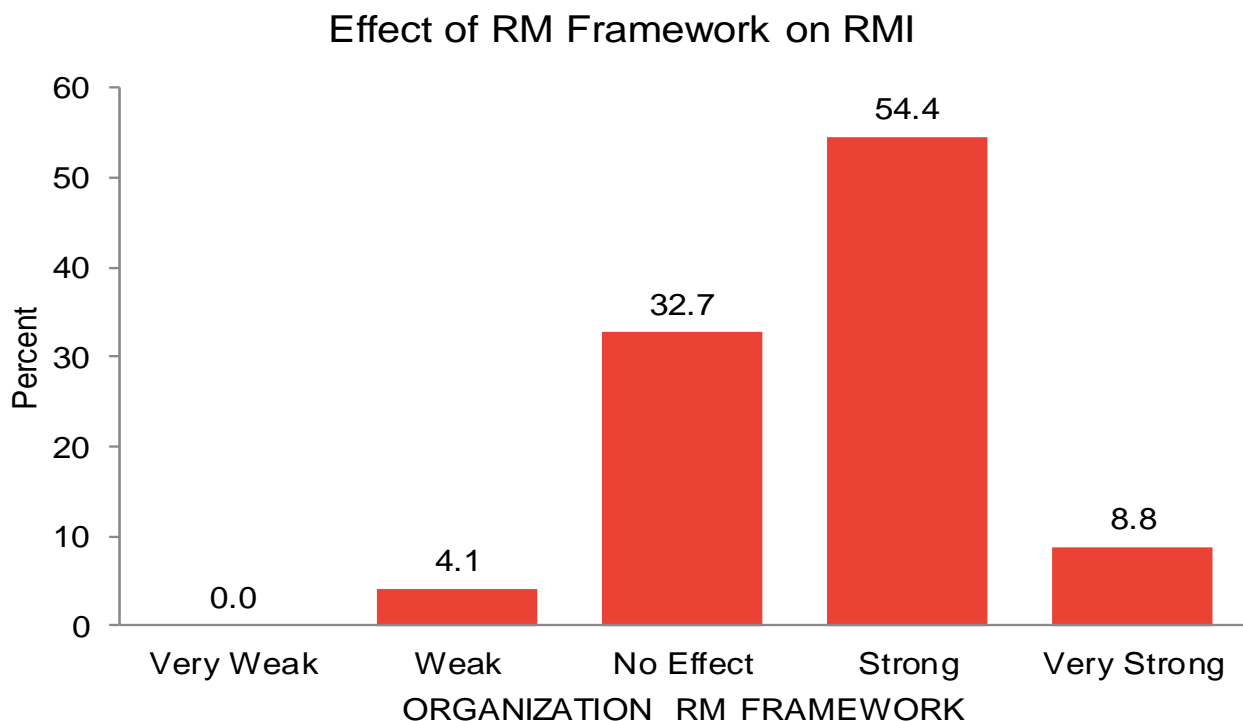


8. Risk Frameworks

The results on the degree of effect that Organisation risk frameworks have on RMI are shown in Figure 4.21. More than half or 54.4% said risk frameworks have a strong influence on the RMI and 8.8% attached a very strong influence on RMI. Slightly more than a third or 32.7% said the presence of the risk framework does not affect the Organisation RMI. None (0%) attached a very weak relationship and 4.1% said a weak relationship exists between the Risk framework and RMI.

Figure 4.21 Risk Management Framework on RMI

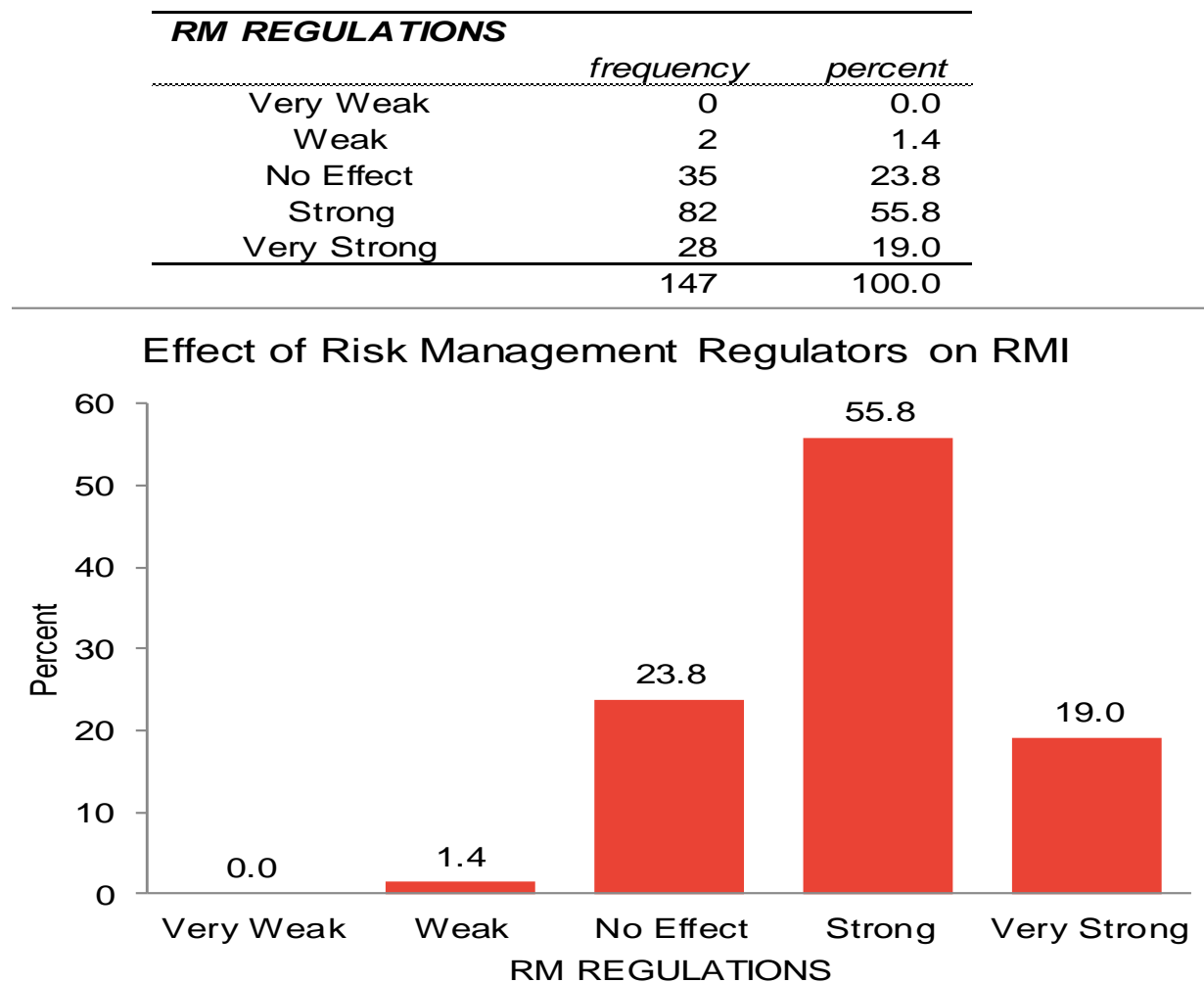
ORGSN RM FRAMWORK		
	<i>frequency</i>	<i>percent</i>
Very Weak	0	0.0
Weak	6	4.1
No Effect	48	32.7
Strong	80	54.4
Very Strong	13	8.8
	147	100.0



9. Risk Management Regulations

The effect of risk management regulators and international standards for compliance were assessed to be affecting the extent of risk management integration in the Organisation as shown in Figure 4.22. A total of 1.4% said the regulators have a weak influence on RMI, 23% said the presence of regulator has no effect on their Organisation RMI and a total of 74.8% said there is very strong (19.0%) and strong (55.8%) influence of regulators on the implementation of risk management integration in the Organisation.

Figure 4.22 Risk Management Regulations

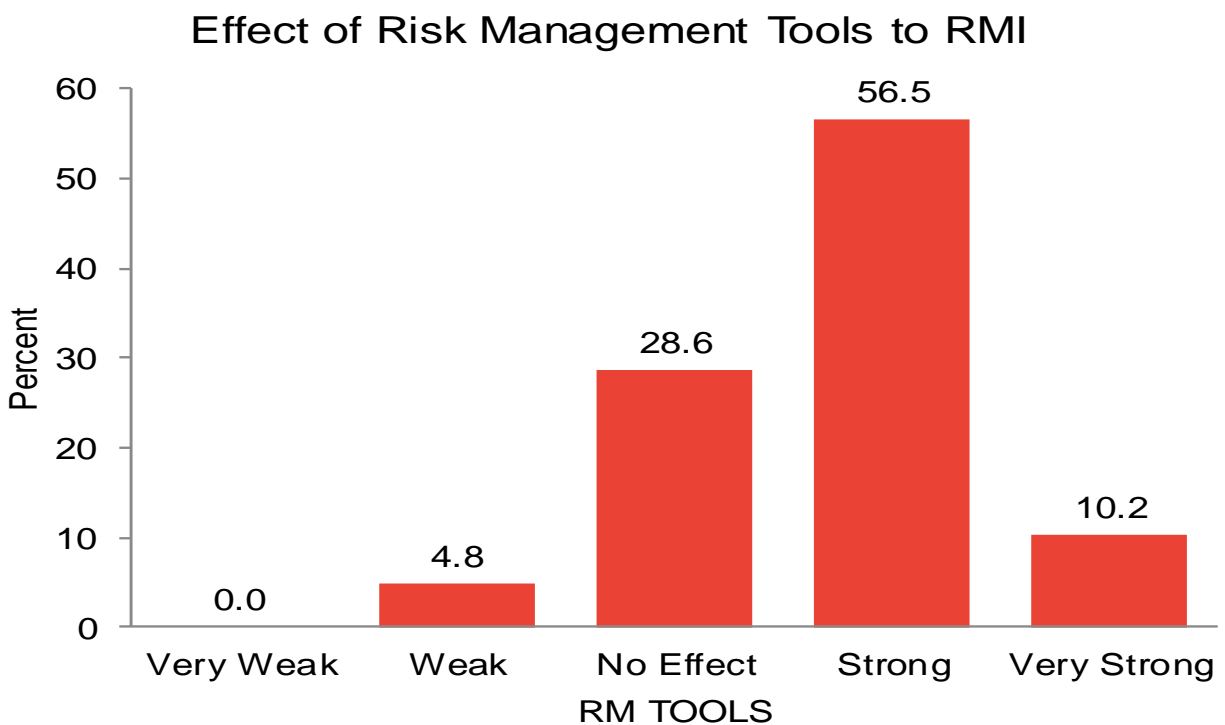


10. Risk Management Tools

The tools used in risk management to effectively identify, measure, analyse and report on risk exposures to come up with mitigations were found to be influencing the Organisation RMI as shown in figure 4.23. More than half (56.5%) said availability or lack of the risk tools strongly affected the RMI of the Organisation. One-tenth (10.2%) said there is a very strong relationship. About a third or 28.6% said there is no effect and 4.8% had a weak effect.

Figure 4.23 Effect of Risk management Tool on RMI

RM TOOLS		
	<i>frequency</i>	<i>percent</i>
Very Weak	0	0.0
Weak	7	4.8
No Effect	42	28.6
Strong	83	56.5
Very Strong	15	10.2
	147	100.0

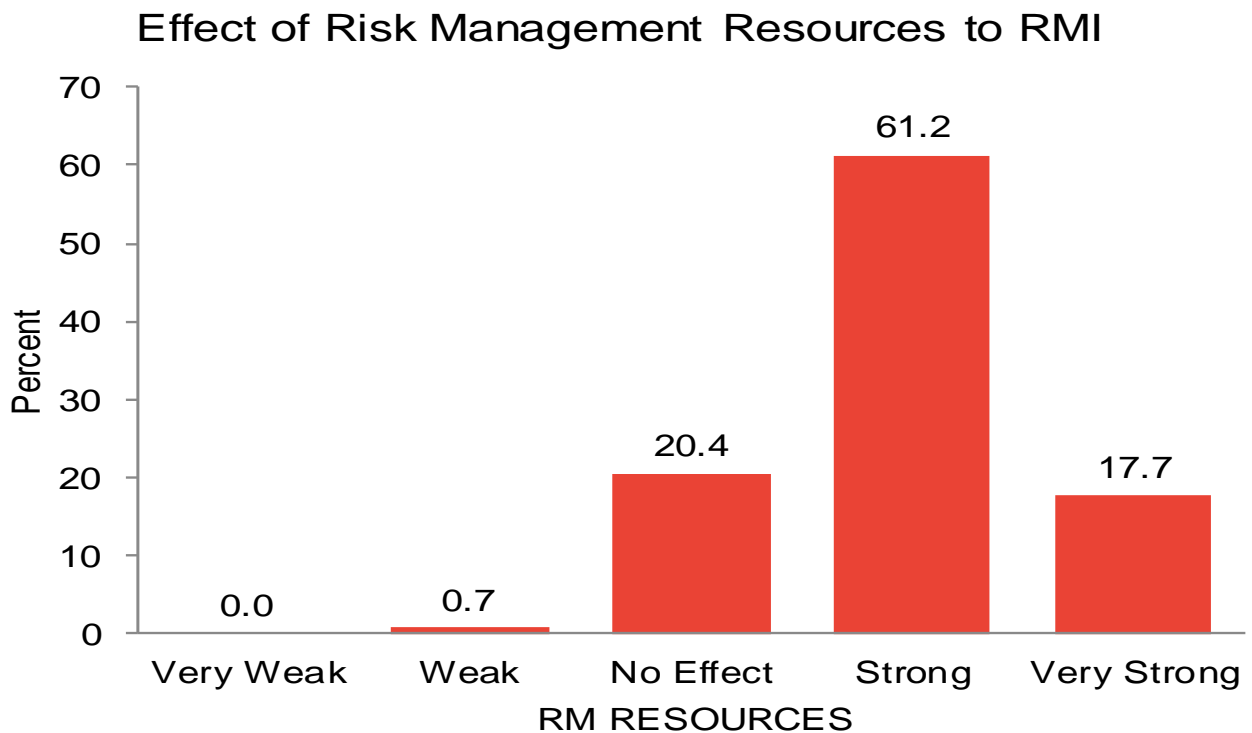


11. Risk Management Resources

The resources available to execute for risk management and the effects they have on the RMI is as shown in Figure 4.24. More than half or 61.2% said availability or lack of the risk management resources strongly affected the RMI of the Organisation. Almost fifth or 17.7% said there is a very strong relationship. One fifth or 20.4% said there is no effect and less than 1 % (0.7%) rated a weak effect on Organisation RMI.

Figure 4.24 Effect of Resources on RMI

RM RESOURCES		
	<i>frequency</i>	<i>percent</i>
Very Weak	0	0.0
Weak	1	0.7
No Effect	30	20.4
Strong	90	61.2
Very Strong	26	17.7
	147	100.0



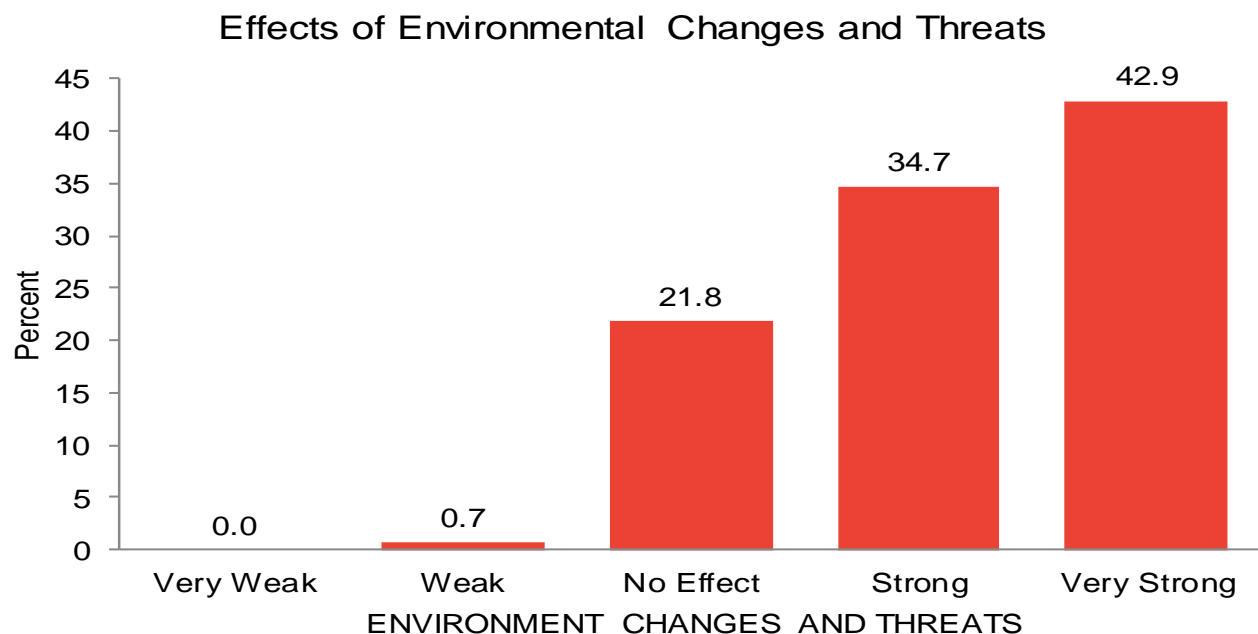
12. Environmental Changes and Threats

The effects of environmental changes and threats to business fall on risk management integration are as shown in Figure 4.25. A total of three quarters reported that the threats and changes in the environment are very strong (42.9%) and strong (34.7%) influence on the RMI of the Organisation.

One fifth or 21.8% said there is no effect and less than 1 % (0.7%) rated a weak effect on Organisation RMI.

Figure 4.25 Effect of Threats and Changes on RMI

ENVIRONMENT CHANGES AND THREATS		
	<i>frequency</i>	<i>percent</i>
Very Weak	0	0.0
Weak	1	0.7
No Effect	32	21.8
Strong	51	34.7
Very Strong	63	42.9
	147	100.0



Hypothesis 2

H₀: The extent to which risk management is integrated into the Organisation is not influenced by the industry where a firm operates in developing countries.

The variables in this hypothesis were industry type as an independent variable and risk management integration as a dependent variable. The hypothesis includes a null hypothesis, which

assumes that industry type has no effect on the amount of risk management integration. The alternative is that industry has a substantial impact on the amount of risk management integration. The hypothesis test was performed with the assumption that the mean value was larger than 3. (since the anchor rating was ranging from 1 very weak to 5 very strong, with 3 as no effect). Table 4.3 illustrates the results of the T-test (146 df) and the Z test, with alpha set to 0.05 or the 95 % confidence level.

The results showed that the average mean obtained was 4.77 that is a strong to very strong influence in both the t and Z test at 146 degrees of freedom at n of 147, respectively. The p-Value for the t-test was a scientific $7.28e^{-42}$ that is numerically equal to zero (0) at the upper one-tailed (greater than 3 to the right). The P-value under the Z test was also zero which in both tests p value < 0.05 . Hence, the following test decisions are taken;

Table 4.3 Hypothesis 2 Test - Significance of Industry on RMI

Hypothesis Test: Mean vs. Hypothesized Value	
3.000	hypothesized value
4.177	mean INDUSTRY EFFECT ON RMI
0.747	std. dev.
0.062	std. error
147	n
146	df
19.11	t
7.28E-42	p-value (one-tailed, upper)
Hypothesis Test: Mean vs. Hypothesized Value	
3.000	hypothesized value
4.177	mean INDUSTRY EFFECT ON RMI
0.747	std. dev.
0.062	std. error
147	n
19.11	z
0.00E+00	p-value (one-tailed, upper)
4.056	confidence interval 95.% lower
4.298	confidence interval 95.% upper
0.121	half-width

Summary decision: Reject Null and Accept Alternative hypotheses

Affirmation: There is 95% certainty or surety that the extent to which risk management is integrated into the Organisation is significantly influenced by the industry where a firm operates in developing countries.

Association: Strong to Very Strong association of variables

4.4.6 Research Objective, Question and Hypothesis 3

Below are the research objective, questions, and hypothesis number 3;

Research Objective 3. To determine whether business organisations have internal risk frameworks that comply with international risk guidelines in Zambia and other developing countries.

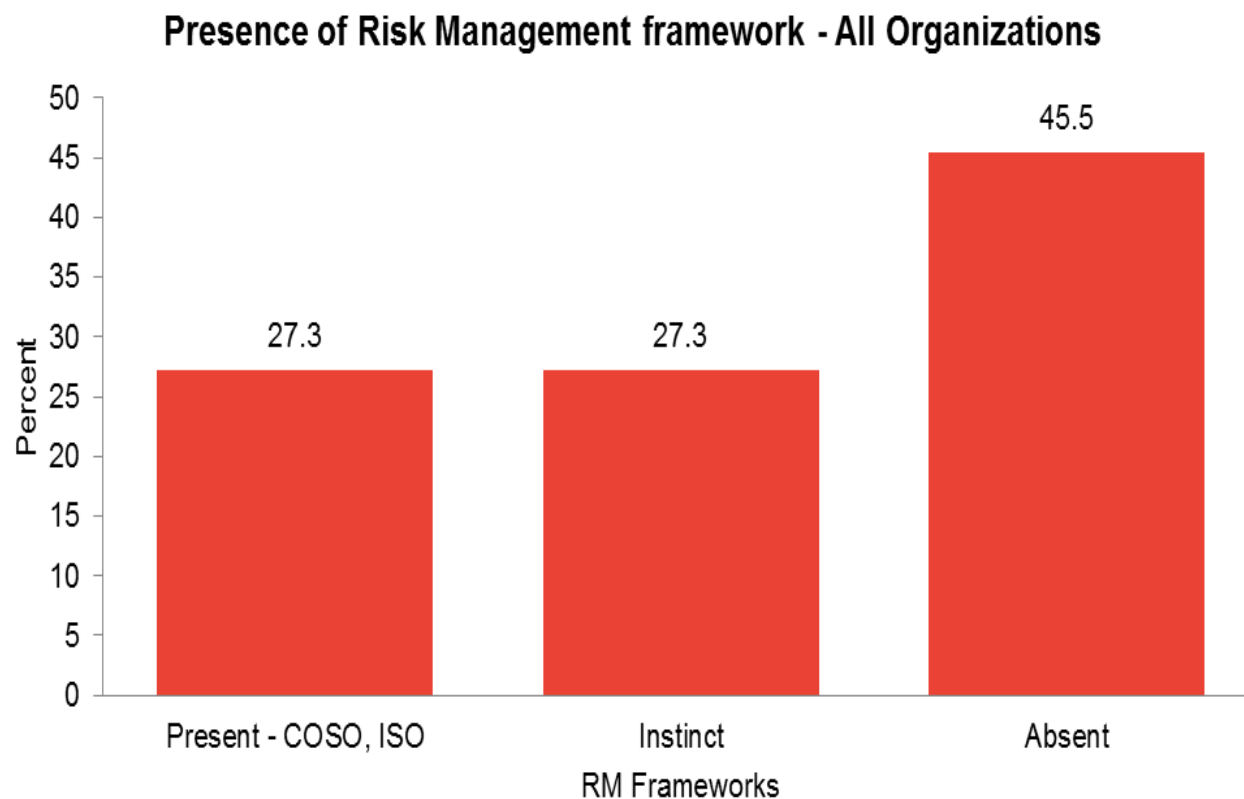
Research question 3. Do business organisations have internal risk frameworks complying with international risk guidelines in Zambia and other developing countries?

1. Risk Management Frameworks

Non-financial institutions were equally engaged along the financial firms to test the presence of risk management frameworks that are levelled with international standards. Below are the results associated with the said variables. Figure 4.26 shows that close to half (45.5%) of the respondents had no risk management framework, 27.3% said have a robust and standard risk management framework such as COSO or ISO 31000 framework. The same proportion mentioned that they have no specific framework, but they use traditional or instinctive methods of managing risk.

The results in figure 4.26 were from the general distribution. However, the delineation of the distribution by firm or sector type has to be clear to know which one of those come from which firm or industry type.

Figure 4.26 Risk Management Frameworks



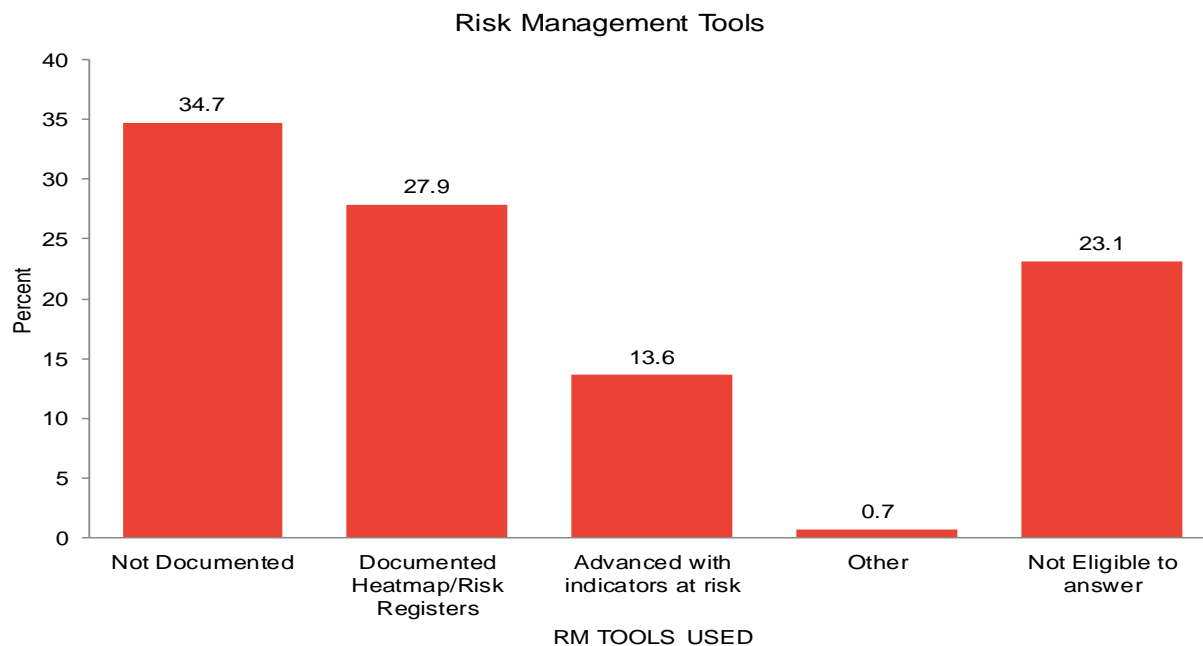
2. Risk Management Tools Used

The organisations were subjected to the risk management tools they employ in risk identification, measurement, analysis, and reporting. Figure 4.27 depicts the results. More than one-third, or 34.7 %, stated that they do not document any risk analysis results. A little more than a quarter of respondents (27.9 %) claimed they have basic risk management systems in place, such as risk heat maps and/or risk registers. A tiny percentage (13.6 %) indicated they have advanced risk

management instruments in place, with risk assessment results documented as business key success factors assessment of risk (Value@Risk, CashFlows@Risk, Earnings@Risk, RAROC, KPI@Risk, Schedule@Risk). This is the highest form of integration and risk framework in place. Less than 1% or absolute one respondent cited other reasons that risk results are made and decided on immediately. Above one fifth or 23.1% were not eligible to answer this question as they had no risk management programme in their Organisation.

Figure 4.27 Risk Management Tools Used

RM TOOLS USED		
	<i>frequency</i>	<i>percent</i>
Not Documented	51	34.7
Documented Heatmap/Risk Registers	41	27.9
Advanced with indicators at risk	20	13.6
Other	1	0.7
Not Eligible to answer	34	23.1
	147	100.0



Hypothesis 3

H₀: Business organisations in Zambia and other developing countries do not have internal risk frameworks that comply with international risk management standards.

Table 4.4 shows the cross-tabulation of the three industries against the levels of risk management tools sophistication to measure the frameworks involved. The Chi-Square test was run at 8 df with 147 observations to assess the observed value of each industry against the expected value. It was established that only financial institutions had advanced risk management tools in place making up a total column of 100% and a row proportion of 33.3% of the total financial institution responses. From the financial, 38.3% at least had risk heat map and risk registers, which also made up a ratio of 56.1% of the total respondents. Only 28.3% of the financial companies did not record the risk assessment results. Of the non-financial institutions, over two-fifths or 41.7% did not document the risk results and 29.2% were not even eligible to answer the question since they did not have the risk management programme in place. A total of less than one third or 29.2% of them have management tools in form of risk heat map/risk registers, no advanced tools.

The P-value of $1.30e^{-11}$ in scientific value is equal to 0.00002171 which means that it is to reject the null and accept the alternative hypothesis to conclude that there is 95% certainty that the results did not happen by mere chance and that financial institutions in developing countries have internal risk frameworks that comply with international risk management standards.

Table 4.4 Chi-square test for Industry and RM Tools

			RM TOOLS USED					
			Not Documented	Documented Heatmap/Risk Registers	Advanced with indicators at risk	Other	Not Eligible to answer	Total
	Financial	Observed	17	23	20			60
		Expected	20.82	16.73	8.16	0.41	13.88	60.00
		% of row	28.3%	38.3%	33.3%	0.0%	0.0%	100.0%
		% of column	33.3%	56.1%	100.0%	0.0%	0.0%	40.8%
INDUSTRY		% of total	11.6%	15.6%	13.6%	0.0%	0.0%	40.8%
	Non-Financial	Observed	20	14			14	48
		Expected	16.65	13.39	6.53	0.33	11.10	48.00
		% of row	41.7%	29.2%	0.0%	0.0%	29.2%	100.0%
		% of column	39.2%	34.1%	0.0%	0.0%	41.2%	32.7%
		% of total	13.6%	9.5%	0.0%	0.0%	9.5%	32.7%
	Other	Observed	14	4		1	20	39
		Expected	13.53	10.88	5.31	0.27	9.02	39.00
		% of row	35.9%	10.3%	0.0%	2.6%	51.3%	100.0%
		% of column	27.5%	9.8%	0.0%	100.0%	58.8%	26.5%
		% of total	9.5%	2.7%	0.0%	0.7%	13.6%	26.5%
	Total	Observed	51	41	20	1	34	147
		Expected	51.00	41.00	20.00	1.00	34.00	147.00
		% of row	34.7%	27.9%	13.6%	0.7%	23.1%	100.0%
		% of column	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of total	34.7%	27.9%	13.6%	0.7%	23.1%	100.0%
			67.88	chi-square				
			8	df				
			1.30E-11	p-value				

4.4.7 Research Objective and Question 4

Below are the research objectives and questions number 4;

Q 4: To determine the extent of risk management integration across different firms and industries in developing countries.

Q 4: What is the extent of risk management integration across different firms and industries in developing countries?

The objective and research questions were evaluated using ten variables as discussed under.

1. Risk Management Integration (RMI) In Planning and Budgeting

Table 4.5 shows the stages at which risk management was incorporated into organisational budgetary control and forecasting. About one third or 33.3% from Financial, over half (54.2%) from Non-Financial and 35.9% from others reported that Risk Analysis Results are Not used to set goals, or for budgeting, but on Adhoc and, unformalised. Risks associated to strategic goals are examined after the strategy or budget has been adopted, according to 35.0 % of financial institutions and 14.6% of non-financial institutions, and one-tenth or 10.3 % of others. This is a post-factum approach that is reactive rather than proactive. Another one third or 31.7% of the financial institutions and none from both non-financial and other institutions reported that Risk management is built into the planning process, and choices are made based on the risk analysis.

Table 4.5 RMI in Planning and Budgeting

Crosstabulation

RMI IN PLANNING AND BUDGETING								
INDUSTRY			Risk Analysis Results - Not used to set goals, budget, adhoc,	Risks related to strategic goals are analyzed after the strategy or after budget have	Risk management is integrated directly into planning and decisions	Other:	Not Eligible to answer	Total
	Financial	Observed	20	21	19			60
		% of row	33.3%	35.0%	31.7%	0.0%	0.0%	100.0%
		% of column	33.3%	65.6%	100.0%	0.0%	0.0%	40.8%
		% of total	13.6%	14.3%	12.9%	0.0%	0.0%	40.8%
	Non-Financ	Observed	26	7		1	14	48
		% of row	54.2%	14.6%	0.0%	2.1%	29.2%	100.0%
		% of column	43.3%	21.9%	0.0%	50.0%	41.2%	32.7%
		% of total	17.7%	4.8%	0.0%	0.7%	9.5%	32.7%
	Other	Observed	14	4		1	20	39
		% of row	35.9%	10.3%	0.0%	2.6%	51.3%	100.0%
		% of column	23.3%	12.5%	0.0%	50.0%	58.8%	26.5%
		% of total	9.5%	2.7%	0.0%	0.7%	13.6%	26.5%
	Total	Observed	60	32	19	2	34	147
		% of row	40.8%	21.8%	12.9%	1.4%	23.1%	100.0%
		% of column	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of total	40.8%	21.8%	12.9%	1.4%	23.1%	100.0%

2. Risk Analysis effect on Objectives

The effect of risk analysis outcomes on the setting of organisation objectives was reported as shown in table 4.6. About a quarter of the financial institutions or 26.7%, about one fifth (22.9%) of the non-financial and 20.5% of other sectors reported that the risk analysis results have a direct impact on the adjustment of strategic goals and budgets. Strategic objectives are generally changed after risk events and losses occur, according to half of financial institutions (51.7%), 45.8% of non-financial firms, and just 28.2% of others. Risk evaluations are not closely related to the

achievement of strategic goals and budgets, according to one-tenth (11.7 %) of financial businesses. Another 10% gave other reasons while one-third of non-financial were not even eligible to answer this question and a half or 51.3% from other institutions were not eligible to answer.

Table 4.6 Effect of Risk Analysis Outcomes on Setting Objectives

Crosstabulation

RISK ANALYSIS EFFECTS ON BUDGET AND OBJECTIVES								
			The outcomes of risk analysis directly affect the revision of strategic goals and budgets	Strategic objectives are usually updated after risk events happen and losses are incurred	The outcomes of risk assessments are not directly linked to the actualization of strategic goals and budgets.	Other:	Not Eligible to answer	Total
INDUSTRY	Financial	Observed	16	31	7	6		60
		% of row	26.7%	51.7%	11.7%	10.0%	0.0%	100.0%
		% of column	45.7%	48.4%	100.0%	85.7%	0.0%	40.8%
		% of total	10.9%	21.1%	4.8%	4.1%	0.0%	40.8%
	Non-Fina	Observed	11	22		1	14	48
		% of row	22.9%	45.8%	0.0%	2.1%	29.2%	100.0%
		% of column	31.4%	34.4%	0.0%	14.3%	41.2%	32.7%
		% of total	7.5%	15.0%	0.0%	0.7%	9.5%	32.7%
	Other	Observed	8	11			20	39
		% of row	20.5%	28.2%	0.0%	0.0%	51.3%	100.0%
		% of column	22.9%	17.2%	0.0%	0.0%	58.8%	26.5%
		% of total	5.4%	7.5%	0.0%	0.0%	13.6%	26.5%
	Total	Observed	35	64	7	7	34	147
		% of row	23.8%	43.5%	4.8%	4.8%	23.1%	100.0%
		% of column	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of total	23.8%	43.5%	4.8%	4.8%	23.1%	100.0%

3. RMI In Decision Making Process

The integration of risk management was also measured in terms of the levels to which risk management is integrated into the decision-making process. The results are illustrated in Table 4.7, with management making major choices in 65.0 percent of FIs, 16.7 percent of NFIs, and 10.3 percent of others after doing detailed risk analysis. About one-third of FIs (31.7%), more than half (52.1%) of NFIs (52.1%), and more than one-third (35.9%) of others said risk analysis is done

only for certain key choices, and that it is done ad-hoc. Very few (3.3%) of FIs, 2.1% of NFIs and 2.6% of others indicated that strategic decisions are made without any kind of systematic, organised, or open risk assessment. A third from NFIs (29.2%) and a half from other firms were not eligible to answer this question.

Table 4.7 RMI in Decision Making

RMI IN DECISION MAKING PROCESS								
			Significant decisions are made by management after conducting thorough risk analysis,	The risk analysis is conducted only for some significant decisions, however this is done ad-hoc	Strategic decisions are made without any systematic, structured or transparent risk analysis	Other:	Not Eligible to answer	Total
INDUSTRY	Financial	Observed	39	19	2			60
		% of row	65.0%	31.7%	3.3%	0.0%	0.0%	100.0%
		% of column	76.5%	32.8%	50.0%		0.0%	40.8%
		% of total	26.5%	12.9%	1.4%	0.0%	0.0%	40.8%
	Non-Financial	Observed	8	25	1		14	48
		% of row	16.7%	52.1%	2.1%	0.0%	29.2%	100.0%
		% of column	15.7%	43.1%	25.0%		41.2%	32.7%
		% of total	5.4%	17.0%	0.7%	0.0%	9.5%	32.7%
	Other	Observed	4	14	1		20	39
		% of row	10.3%	35.9%	2.6%	0.0%	51.3%	100.0%
		% of column	7.8%	24.1%	25.0%		58.8%	26.5%
		% of total	2.7%	9.5%	0.7%	0.0%	13.6%	26.5%
	Total	Observed	51	58	4	0	34	147
		% of row	34.7%	39.5%	2.7%	0.0%	23.1%	100.0%
		% of column	100.0%	100.0%	100.0%		100.0%	100.0%
		% of total	34.7%	39.5%	2.7%	0.0%	23.1%	100.0%

4. Board Meeting Risk management Discussions

The RMI was also measured in terms of board meeting risk management discussions. Refer to Table 4.8 on row findings, which demonstrate that risk assessment issues are not even on the Board's agenda for fewer than one fifth of FIs (18.3%), almost one third (27.1%) of NFIs (27.1%), and one-fifth of the rest (20.5%). While 5.0 percent of FIs, 8.3 percent of NFIs, and none of the

others said risk management problems are handled on an ad hoc or frequent basis at the Board. Of much interest, over three quarters (76.7%) of the FIs, one third or 33.3% of NFIs and one fifth or 20.5% of others cited those issues of risk management are presented to the Board in a systematic, consistent, and broad manner. The NFIs and Others had a 2.1% and a 7.7% giving other reasons including that the Organisation has no board of directors in place. One third or 29.2% of the NFIs and over half (51.3%) were not eligible to answer the question.

Table 4.8 Board Meeting Risk Management Discussions

Crosstabulation								
BOARD MEETING RM DISCUSSIONS								
INDUSTRY			Issues related to risk management are not included on the Board's agenda	Issues related to risk management are discussed at the Board on adhoc or periodical basis.	Issues of risk management are presented to the Board in systematic, consistent and broad manner	Other - No Board in place	Not Eligible to answer	Total
	Financial	Observed	11	3	46			60
		% of row	18.3%	5.0%	76.7%	0.0%	0.0%	100.0%
		% of column	34.4%	42.9%	65.7%	0.0%	0.0%	40.8%
		% of total	7.5%	2.0%	31.3%	0.0%	0.0%	40.8%
	Non-Financial	Observed	13	4	16	1	14	48
		% of row	27.1%	8.3%	33.3%	2.1%	29.2%	100.0%
		% of column	40.6%	57.1%	22.9%	25.0%	41.2%	32.7%
		% of total	8.8%	2.7%	10.9%	0.7%	9.5%	32.7%
	Other	Observed	8		8	3	20	39
		% of row	20.5%	0.0%	20.5%	7.7%	51.3%	100.0%
		% of column	25.0%	0.0%	11.4%	75.0%	58.8%	26.5%
		% of total	5.4%	0.0%	5.4%	2.0%	13.6%	26.5%
	Total	Observed	32	7	70	4	34	147
		% of row	21.8%	4.8%	47.6%	2.7%	23.1%	100.0%
		% of column	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of total	21.8%	4.8%	47.6%	2.7%	23.1%	100.0%

5. Documentation of Risk Analysis Outcomes

The integration of risk management was also measured in terms of how the documentation of the risk analysis outcomes is done. Table 4.9 shows the outcomes, and it is noted by the row results that 60.0% of the FIs, 14.6% of the NFIs and none from other categories reported that the outcomes

of risk analysis are documented for following each major decision. A risk assessment is performed by somewhat more than one fifth of FIs, 33.3% of NFIs, and 25.6% of other categories, although the results are not always documented. 16.7% of FIs, 22.9 percent of NFIs, and 23.1% of other groups said risk analysis is informal and not recorded at all. A third of the NFIs, 29.2%, were not even eligible to answer the question, and 51.3% were from other types of businesses.

Table 4.9 Documentation of Risk Analysis Outcomes

Crosstabulation

DOCUMENTATION OF RISK ANALYSIS OUTCOMES								
INDUSTRY			The outcomes of risk analysis are documented for accompanying each significant decision	Some risk analysis is carried out, but the outcomes are not always documented	Risk analysis is informal and not documented at all	Other:	Not Eligible to answer	Total
	Financial	Observed	36	14	10			60
		% of row	60.0%	23.3%	16.7%	0.0%	0.0%	100.0%
		% of column	83.7%	35.0%	33.3%		0.0%	40.8%
		% of total	24.5%	9.5%	6.8%	0.0%	0.0%	40.8%
	Non-Financial	Observed	7	16	11		14	48
		% of row	14.6%	33.3%	22.9%	0.0%	29.2%	100.0%
		% of column	16.3%	40.0%	36.7%		41.2%	32.7%
		% of total	4.8%	10.9%	7.5%	0.0%	9.5%	32.7%
	Other	Observed		10	9		20	39
		% of row	0.0%	25.6%	23.1%	0.0%	51.3%	100.0%
		% of column	0.0%	25.0%	30.0%		58.8%	26.5%
		% of total	0.0%	6.8%	6.1%	0.0%	13.6%	26.5%
	Total	Observed	43	40	30	0	34	147
		% of row	29.3%	27.2%	20.4%	0.0%	23.1%	100.0%
		% of column	100.0%	100.0%	100.0%		100.0%	100.0%
		% of total	29.3%	27.2%	20.4%	0.0%	23.1%	100.0%

6. The Risk Management Integration in Core Operational Issues and Processes

Risk management was found to be integrated into the Organisation's basic operating procedures in 26.7 % of FIs, 33.3 % of NFIs, and 38.5 % of other categories, with the Organisation identifying,

analysing, and managing only such risks that are legally regulated. While 36.7 % of financial institutions, a quarter of non-financial institutions (NFIs), and 5.1% of other groups said risks connected with fundamental operational processes are only analysed and handled on a quarterly basis. More than a third or 36.7% of FIs, 12.5% of NFIs and 5.1% of other categories reported that risk management forms an integral part of the core operational processes of the operating activities. A third of the NFIs or 29.2% and a half or 51.3% of other categories were not eligible to answer the question as they were not having any risk management system in place. Table 4.10 summarises the cross-tabulation and pick the row values.

Table 4.10 RMI on Core Operation Processes

Crosstabulation

RMI IN CORE OPERATIONAL PROCESSES								
			The organization identifies, analyses and manages only those types of risks regulated by law	Risks associated with the core operational processes are assessed and managed only periodically	Risk management forms an integral part of the core operational processes of the operating activities	Other:	Not Eligible to answer	Total
INDUSTRY	Financial	Observed	16	22	22			60
		% of row	26.7%	36.7%	36.7%	0.0%	0.0%	100.0%
		% of column	34.0%	61.1%	73.3%		0.0%	40.8%
		% of total	10.9%	15.0%	15.0%	0.0%	0.0%	40.8%
	Non-Financial	Observed	16	12	6		14	48
		% of row	33.3%	25.0%	12.5%	0.0%	29.2%	100.0%
		% of column	34.0%	33.3%	20.0%		41.2%	32.7%
		% of total	10.9%	8.2%	4.1%	0.0%	9.5%	32.7%
	Other	Observed	15	2	2		20	39
		% of row	38.5%	5.1%	5.1%	0.0%	51.3%	100.0%
		% of column	31.9%	5.6%	6.7%		58.8%	26.5%
		% of total	10.2%	1.4%	1.4%	0.0%	13.6%	26.5%
	Total	Observed	47	36	30	0	34	147
		% of row	32.0%	24.5%	20.4%	0.0%	23.1%	100.0%
		% of column	100.0%	100.0%	100.0%		100.0%	100.0%
		% of total	32.0%	24.5%	20.4%	0.0%	23.1%	100.0%

7. Risk Management Integration in BackOffice Process – Procurement, Finance, ICT & Legal

The risk management integration in the back-office processes primarily procurement, finance, ICT and legal was asked to the respondents. Table 4.11 shows that risk assessments on supporting functions are conducted informally or after the fact by 28.3 % of FIs, 45.8 % of NFIs, and 38.5 % of other groups (after event occur). Risks connected with back-office operations are identified, analysed, and managed on Adhoc by around a third of FIs (33.3%), 12.5 percent of NFIs (12.5 percent), and none of the other groups. Risk management is an intrinsic aspect of the operating operations incorporated into back-office procedures for 38.3% of FIs, 12.5 percent of NFIs, and 7.7% of other categories, according to the survey. One third or 29.2% of the NFIs and more than half (51.3%) of the other categories were not eligible to answer the question.

Table 4.11 Risk Management Integration in Back Office Processes

			RMI IN BACKOFFICE PROCESSES - PROC, FIN, IT, LEG					Total
			Risk assessments on supporting functions are done informally or post factum (after event occur)	Risks associated with back-office processes are identified, assessed and managed on adhoc	Risk management is an integral part of the operating activities integrated into back-office processes,	Other:	Not Eligible to answer	
INDUSTRY	Financial	Observed	17	20	23			60
		% of row	28.3%	33.3%	38.3%	0.0%	0.0%	100.0%
		% of column	31.5%	76.9%	71.9%	0.0%	0.0%	40.8%
		% of total	11.6%	13.6%	15.6%	0.0%	0.0%	40.8%
	Non-Financial	Observed	22	6	6		14	48
		% of row	45.8%	12.5%	12.5%	0.0%	29.2%	100.0%
		% of column	40.7%	23.1%	18.8%	0.0%	41.2%	32.7%
		% of total	15.0%	4.1%	4.1%	0.0%	9.5%	32.7%
	Other	Observed	15		3	1	20	39
		% of row	38.5%	0.0%	7.7%	2.6%	51.3%	100.0%
		% of column	27.8%	0.0%	9.4%	100.0%	58.8%	26.5%
		% of total	10.2%	0.0%	2.0%	0.7%	13.6%	26.5%
	Total	Observed	54	26	32	1	34	147
		% of row	36.7%	17.7%	21.8%	0.7%	23.1%	100.0%
		% of column	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of total	36.7%	17.7%	21.8%	0.7%	23.1%	100.0%

8. Risk Management Disclosure and Management Reporting

The risk management disclosure and management reporting were some of the variables to measure the degree of RMI in the respondents' Organisations. Table 4.12 row data show that fiscal as well as management reporting do not incorporate risk management information by 28.3 percent of FIs, 50.0 % of NFIs, and 41.0 percent of other groups. Nearly half of FIs (48.3%), NFIs (20.8%), and other groups (7.7%) reported their organisation publishes risk management information in accordance with the minimal criteria. While 23.3% of FIs, and none from both NFIs and other categories reported that risk procedures and risk analysis outcomes are reported in line with ISO31000:2018. One third (29.2%) of the NFIs and more than half (51.3%) of the other categories were not eligible to answer the question.

Table 4.12 Risk Disclosure and Management Reports

Crosstabulation

RM DISCLOSURE AND MGT REPORTING								
			Risk management information is not covered in financial or management reporting	Organisation discloses risk management information in line with the minimum requirements	Risk procedures and risk analysis outcomes are reported in line with ISO31000:2018	Other:	Not Eligible to answer	Total
INDUSTRY	Financial	Observed	17	29	14			60
		% of row	28.3%	48.3%	23.3%	0.0%	0.0%	100.0%
		% of column	29.8%	69.0%	100.0%		0.0%	40.8%
		% of total	11.6%	19.7%	9.5%	0.0%	0.0%	40.8%
	Non-Financial	Observed	24	10			14	48
		% of row	50.0%	20.8%	0.0%	0.0%	29.2%	100.0%
		% of column	42.1%	23.8%	0.0%		41.2%	32.7%
		% of total	16.3%	6.8%	0.0%	0.0%	9.5%	32.7%
	Other	Observed	16	3			20	39
		% of row	41.0%	7.7%	0.0%	0.0%	51.3%	100.0%
		% of column	28.1%	7.1%	0.0%		58.8%	26.5%
		% of total	10.9%	2.0%	0.0%	0.0%	13.6%	26.5%
	Total	Observed	57	42	14	0	34	147
		% of row	38.8%	28.6%	9.5%	0.0%	23.1%	100.0%
		% of column	100.0%	100.0%	100.0%		100.0%	100.0%
		% of total	38.8%	28.6%	9.5%	0.0%	23.1%	100.0%

9. Risk management Interaction with Internal Audit

The risk management interaction with Internal Audit was the ninth variable for measuring the degree of RMI in the respondents' Organisations. Table 4.12 row numbers reveal that risk management processes in 31.7 % of FIs, 41.7 % of NFIs, and 35.9 % of other groupings are unrelated to internal audit or internal control operations. According to 45.0 % of FIs, 27.1 % of NFIs, and 10.3 % of other groupings, risk management professionals provide information to internal audits in order to build a risk-based audit. According to one-fifth or 20.0 % of FIs, every internal audit and internal control activities (audit plan, report structure, and work scope) are based on risk information, and none from NFIs or other categories. One third or 29.2% of the NFIs and more than half (51.3%) of the other categories were not eligible to answer the question.

Table 4:13 Risk and Internal Audit Interaction

Crosstabulation

RM INTERACTION WITH IA								
INDUSTRY			Risk management processes are not linked to internal audit or internal control	Risk management experts provide information to internal audit to create a risk-	All internal audit and internal control activities (audit plan, report structure and work scope) are based on risk	Other: No Internal A	Not Eligible to answer	Total
	Financial	Observed	19	27	12	2		60
		% of row	31.7%	45.0%	20.0%	3.3%	0.0%	100.0%
		% of column	35.8%	61.4%	100.0%	50.0%	0.0%	40.8%
		% of total	12.9%	18.4%	8.2%	1.4%	0.0%	40.8%
	Non-Financial	Observed	20	13		1	14	48
		% of row	41.7%	27.1%	0.0%	2.1%	29.2%	100.0%
		% of column	37.7%	29.5%	0.0%	25.0%	41.2%	32.7%
		% of total	13.6%	8.8%	0.0%	0.7%	9.5%	32.7%
	Other	Observed	14	4		1	20	39
		% of row	35.9%	10.3%	0.0%	2.6%	51.3%	100.0%
		% of column	26.4%	9.1%	0.0%	25.0%	58.8%	26.5%
		% of total	9.5%	2.7%	0.0%	0.7%	13.6%	26.5%
	Total	Observed	53	44	12	4	34	147
		% of row	36.1%	29.9%	8.2%	2.7%	23.1%	100.0%
		% of column	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of total	36.1%	29.9%	8.2%	2.7%	23.1%	100.0%

10. Self-Rating on Risk Management Integration Adequacy in the Organisation

The respondents were asked to self-evaluate their organisation on the adequacy of the risk management integration. Table 4.14 row values report that 10.0% of FIs, 10.4% of NFIs and none from the other categories said that risk management integration in their organisation is adequate. Close to three quarters (71.7%) of FIs, half (50.0%) of NFIs and 35.9% of the other categories said that risk management integration in their Organisation is inadequate. Almost one fifth or 18.3% of FIs, 39.6% of NFIs and 64.1% of the other categories reported that risk integration in their Organisation is not in place.

Table 4.14 Adequacy of RMI

Crosstabulation						
INDUSTRY	RM ADEQUACY RATING IN ORGSN					
		Observed	Adequate	Inadequate	Not in place	Total
	Financial	Observed	6	43	11	60
		% of row	10.0%	71.7%	18.3%	100.0%
		% of column	54.5%	53.1%	20.0%	40.8%
		% of total	4.1%	29.3%	7.5%	40.8%
	Non-Financial	Observed	5	24	19	48
		% of row	10.4%	50.0%	39.6%	100.0%
		% of column	45.5%	29.6%	34.5%	32.7%
		% of total	3.4%	16.3%	12.9%	32.7%
	Other	Observed		14	25	39
		% of row	0.0%	35.9%	64.1%	100.0%
		% of column	0.0%	17.3%	45.5%	26.5%
		% of total	0.0%	9.5%	17.0%	26.5%
	Total	Observed	11	81	55	147
		% of row	7.5%	55.1%	37.4%	100.0%
		% of column	100.0%	100.0%	100.0%	100.0%
		% of total	7.5%	55.1%	37.4%	100.0%

Hypothesis 4

H₀: There is no relationship between a firm's size and the extent of risk management

Integration in developing countries.

In this supposition, two variables were tested from among a lot of them affecting the levels of risk management in the firms. The independent variable in this hypothesis was the firm size and the dependent variable was the risk management integration.

Table 4.15 is the cross-tabulation and a run of chi-square between the two variables. This time no industry is put in context, but the size of the Organisation is measured in terms of the number of employees. Table 4.15 clearly shows that the proportion of the Organisations where risk management formed an integral part of the core operational processes of the activities were 7.3% of the smallest Organisations below 20 employees, 19.7% of the medium size between 20 to 100 employees and 37.1% of the biggest Organisations above 100 employees. Risks connected with essential operational processes are only analysed and handled on a periodic basis, according to none of the smallest organisations with less than 20 people, while 28.2 % of medium and 45.7 %

of the largest organisations. The ratio of those who said their Organisations identify, analyse, and manage only those types of risks regulated by-laws were 26.8% of the smallest, 42.3% of medium and 17.1% of the largest with employees above 100 employees.

The P-value is $2.6e^{-13}$ or 0.00000587 ($P < 0.05$) which rejects that null hypothesis and accepts the null. The test proves that the distribution of the associations did not happen by chance and hence there is 95% certainty that the RMI and the size of the organisation are directly correlated.

Table 4.15 Organisation Size and RMI in Core Processes

Crosstabulation

RMI IN CORE OPERATIONAL PROCESSES								
ORGANISATION SIZE			The organization identifies, analyses and manages only those types of risks regulated by law	Risks associated with the core operational processes are assessed and managed only periodically	Risk management forms an integral part of the core operational processes of the operating activities	Other:	Not Eligible to answer	Total
	Less than 20 employees	Observed	11		3	1	26	41
		% of row	26.8%	0.0%	7.3%	2.4%	63.4%	100.0%
		% of column	23.4%	0.0%	10.0%	100.0%	78.8%	27.9%
		% of total	7.5%	0.0%	2.0%	0.7%	17.7%	27.9%
	Btwn 20 – 100 employees	Observed	30	20	14		7	71
		% of row	42.3%	28.2%	19.7%	0.0%	9.9%	100.0%
		% of column	63.8%	55.6%	46.7%	0.0%	21.2%	48.3%
		% of total	20.4%	13.6%	9.5%	0.0%	4.8%	48.3%
	Above 100 employees	Observed	6	16	13			35
		% of row	17.1%	45.7%	37.1%	0.0%	0.0%	100.0%
		% of column	12.8%	44.4%	43.3%	0.0%	0.0%	23.8%
		% of total	4.1%	10.9%	8.8%	0.0%	0.0%	23.8%
	Total	Observed	47	36	30	1	33	147
		% of row	32.0%	24.5%	20.4%	0.7%	22.4%	100.0%
		% of column	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of total	32.0%	24.5%	20.4%	0.7%	22.4%	100.0%

4.4.8 Research Objective and Question 5

The last research objectives and research questions number five were as below;

Research Objective 5. To establish if the business organisations in Zambia and other developing countries have formalised risk management structures.

Research Question 5. Are there formalised risk management structures integrated into the business organisations in Zambia and other developing countries?

The objective was measured using the presence of the risk department as a measure of the formalised risk management structure. Table 4.16 on the row values shows that 61.7% of the financial institutions had formalised risk management structure in form of a unit or department, only 4.2% from non-financial and none from other categories. From the Financial institutions, 38.3% said they do not have a risk department or structure, while 95.8% from NFI had no department and 100% of the other categories had no risk structure in form of a risk department. The P-value is less than 0.05 showing that the association of the variables are statistically significant rather than by mere chance.

Table 4.16 Industry and Risk Management Department

Crosstabulation					
INDUSTRY			RISK DEPT		
			Yes	No	Total
	Financial	Observed	37	23	60
		% of row	61.7%	38.3%	100.0%
		% of column	94.9%	21.3%	40.8%
		% of total	25.2%	15.6%	40.8%
	Non-Financial	Observed	2	46	48
		% of row	4.2%	95.8%	100.0%
		% of column	5.1%	42.6%	32.7%
		% of total	1.4%	31.3%	32.7%
	Other	Observed		39	39
		% of row	0.0%	100.0%	100.0%
		% of column	0.0%	36.1%	26.5%
		% of total	0.0%	26.5%	26.5%
	Total	Observed	39	108	147
		% of row	26.5%	73.5%	100.0%
		% of column	100.0%	100.0%	100.0%
		% of total	26.5%	73.5%	100.0%

64.40 chi-square

2 df

1.04E-14 p-value

4.5 Evaluation of the findings and connection to literature

In this section, an evaluation of the results and their meaning is presented following a systematic order as in the previous results presentation section organised by research questions and hypotheses. This part of the chapter goes beyond the presentation of the results from the previous section as more discussion of details are involved for purposes of interpretation and speculation.

This section has included the interpretation of some demographic information collected and their observed pattern as seen in section 4.3.

4.5.1 Demographic Information Explained Pattern

1. Gender

The gender distribution of the respondents involved in the research gender was as shown in Figure 4.1 and it was indicated that out of the total respondents, 72.2% were male and 27.8% were female, a ratio of four to one male/female. This variation in the gender distribution was likely to have occurred due to the current gender inequalities in higher executive positions obtained in most Organisations. Using comprehensive executive data in 5,886 U.S. firms Xu (2018) documented that the promotion rate for women is 31% lower than the promotion rate for men. This trend is extrapolated to all institutions to give a pattern of more males than females in executive positions.

2. Age

The purpose was to establish the age distribution of respondents involved in the research representing the Organisations. Figure 4.2 shows that 50.0% were aged above 40 years, 48.1% were between 25 to 45 and 1.9% were below 25 years. The observed increase in the proportion with age may be explained by the experience associated with the age or age stereotype perceived to be suitable with the job at hand. Turek and Henkens (2020) said that if stigmatising biases impact the possibility of attracting older employees, favourable or negative consequences of those criteria connected to preconceptions should be predicted. The mind fix on age might explain the need to promote or recruit those of old age perceived to have the experience to manage risks in the Organisation rather than younger ones. In the same way, certain high physique jobs may be likely be associated with the young and vibrant.

3. Position in the Organisation

The distribution of respondents by their role in the Organisation is as shown in Figure 4.3, the majority (85.4%) were senior executives, 14.6% middle management and none in the clerical roles. This pattern was selected on purpose since it is believed that the best risk management oversight

should be from the very top. According to Afsharipour and Paranjpe (2021), the board of directors is in charge of oversight and that the board of directors is at the heart of effective risk management because they play a critical role in overseeing and guiding a company's risk policy and ensuring that appropriate systems of control are in place. While it was not feasible to engage the board of each Organisation in this research, the senior executives served an equivalent role.'

4. Department in the Organisation

The distribution of respondents by the department they are in the Organisation is shown in Figure 4.4. About one fifth (22.8%) came from Risk Department, 6.3% Audit, 29.1% Finance and almost half (41.8%) from other departments. This research aimed to capture as many risk management activities and formalities as possibly there are in the engaged Organisations. This demographic detail gave a loud signal of the distribution of the risk department in the Organisation. The findings were in line with the research problem, where it is established that despite the need for risk management, there is seemingly less adoption of risk management in the organisations and the real situation shows that businesses do not fully embed risk management in their business activities and strategy (Fadun, 2013, Beasley et al., 2017). According to Baharuddin and Yusof (2018), despite continual attention and emphasis on the beneficial effects of risk assessment to every project, risk management techniques are generally poor, and they have not even been practiced in their totality. The findings agree with these theoretical findings that only a few Organisations have risk management practices including the formal risk departments.

5. Length of Service

The length of time spent by respondents working for the Organisation as shown in Figure 4.5 were that about two thirds (67.7%) had worked above 3 years, 15.8% worked 1 - 3 years and 16.5% for less than a year. The observed pattern was largely attributed to the fact that senior managers were likely to be those longer in service of the Organisations. For similar reasons established by Turek and Henkens (2020) on the ageist stereotypes, Kenny (2020) added the length of service as a factor determining the promotion at work explaining the pattern observed.

4.5.2 Organisation Background

The Organisational background data was gathered to establish the characteristics of the Organisation that are relevant to the objectives of the research. Below are the evaluated findings.

1. Industry where Organisation operates

The distribution of the industry in which the Organisations engaged was operating is shown in Figure 4.6. From the total number of Organisations engaged in the study, 41.8% were from the financial institutions composed of banks, non-bank financial institutions, bureau de change, insurance companies and building societies. About one third (32.3%) of the Organisations were from non-financial institutions and 25.9% were from various sectors classified as other. The purpose of this distribution was to assess the risk management implementation in financial institutions while at the same time checking the effect a specific sector or industry has on the independent variable. Bartos (2020) indicated that to estimate the effect of an exogenous intervention on a treated unit, a control unit is necessary. In this case, financial institutions were the treated units and other firms played the role of control units.

The proportion of the mix between the target group and the control group was for a reason that no imbalance or inferiority should be created. Ji and Wang (2020) stated that in many randomised controlled trials (RCT) designs, more participants are randomised to the treated group than to the control group. This imbalance may encourage people to join in a trial because their chance of being randomised to the treated group is greater than to the control group present the formulas for RCTs below;

$$n_T = kn_c.$$

Where they denoted k to be the ratio of the sample size of the treatment group under study n_T to the sample size of the control group, which is denoted as n_c so that in this research, $k = 1.4$ and then the control is 58% and treatment was 42%.

2. Size of Organisation

The size of the Organisation was measured in terms of the number of employees in the Organisation. Figure 4.7 shows that almost half (48.7%) of the respondents were from Organisations from medium size 20 to 100 employees, about one quarter (27.2%) from small size with less than 20 employees and about another quarter (24.1%) from big Organisations above 100 employees. The size of the firm is measured using many parameters, but many researchers have used the size of the firm in terms of the number of employees such as Styvén and Wallström (2019); Chtourou and Triki (2017) and Chen, Rubach, Snyder, and Blanchett (2020).

3. Risk Management Programme in the Organisation

Of the total respondents, 62.7% admitted that they do not have a deliberate risk management programme in place, 27.8 % had a risk management programme consciously placed and managed while about one-tenth (9.5%) only had a likeness of it or nothing at all, refer to figure 4.9. This suggested that the majority of firms included do not have a risk management program. From the total engaged only a small proportion of less than a third said they have the deliberate risk management system in the strategy.

This finding agrees with the theoretical framework explained by Silva and Fernandes (2019) who interpreted the contingency theory for risk management as an interrelationship of three factors which are structure, strategy, and risk management process. They explained that the extent of variation in these variables leads to the equivalent variations in the degree of ERM integration. Hence the variation observed is in line with this contingent theory.

4. Risk Department in the Organisation Structure

The risk management integration was assessed in terms of the formalised risk department presence in the Organisation. Refer to Figure 4.9 which shows that only about a quarter (25.9%) of the Organisations engaged said they have a risk department in their Organisation while about three

quarters (74.1%) did not have a risk unit in their Organisation. This shows that the majority of companies do not have a risk management system in place, and it reflects the poor risk management integration in the overall picture.

Theoretically, the filled-in risk department will be active to design and implementing the ERM (Laisasikorn & Rompho, 2019). This implies that the structure is a variable that influences both the independent and the dependent variable as well as the performance of the Organisation (Girangwa, Rono, & Mose, 2020). This was recognised in the conceptual framework as an independent variable. The proportion in which the findings show an inclination towards no risk department agrees with the current research finding such as Hiebl, Duller and Neubauer (2019) who examined the risk management integration in the family business. They pointed out that, despite the fact that family businesses are the most common form of business worldwide, the literature on enterprise risk management (ERM) adoption in family businesses is lacking.

This observation is supported by conclusions based on data collected in a number of developing nations. For example, Mardessi and Arab (2018) found that in the post-revolutionary Tunisian setting, there was a growing interest in risk management, but an integrated approach to ERM deployment was still in its early stages. According to the multivariate regression findings, the existence of a Chief Risk Officer, who serves as the risk structure's head, was positively connected to the degree of ERM implementation (Mardessi & Arab, 2018).

5. Resources Allocated towards Risk Management

In Figure 4.11 of section 4.3, the report indicated that almost half (46.5%) of the Organisations engaged did not allocate resources for managing risk, 38.1% dedicated resources towards risk management. Slightly above one-tenth (15.4%) had a negligible budget portion for risk management. These results show that on the general pattern, the majority of Organisations do not allocate a budget line towards risk management integration or general management. More than three-quarters of them either have an insignificant portion or none at all.

These findings are consistent with those of Mwanaumo and Thwala (2018), who attempted to identify the hazards associated with the public sector supply chain of vital pharmaceuticals in Zambia. Data was analysed, and the findings revealed that inadequate and inconsistent money disbursement, as well as deficient information management systems, were among the top hazards in the medical industry. The parallel observation was made by Fraser and Simkins (2016) identified several major challenges faced in implementing ERM and one of which was the challenges that make it difficult for others to allocate scarce resources towards operational risk management issues and hence limiting the levels of risk implementation integration. Fadun and Oye (2020) discovered that banks are incurring greater losses as a result of poor operational risk management practices, and they recommended that bank management devote more resources to understanding operational risk in order to ensure sound operational risk management and improved financial performance.

4.5.3 Evaluation of Findings on Research Objective, Question and Hypothesis 1

The research objectives and questions were as stated thus;

Research Objective 1: To ascertain if there is a proportion of resources in the budget allocated towards management of risks by business organisations in Zambian and other developing countries.

Research Question 1: Is there a proportion of resources in the budget allocated towards risk management by business organisations in Zambia and other developing countries?

Referring to Figure 4.12 in the previous section, a combined assessment of all categories of Organisations indicated that more than half or 54.5% declined ever allocating any resources on their budget lines while 45.5% of those interviewed indicated that their budget has an expense line reserved for risk management. This finding revealed that there is a proportion of Organisations in general who do not allocate resources towards mitigating risks in Organisations. The p-value under this taste was 0.889 above the acceptance level of 0.05, signifying that there is no statistical significance that Organisations allocate resources. Although it is prudent to note that some

Organisations allocate some resources towards managing risk even if they do not have the risk management programme defined in place. The number of Organisations that indicated resource allocation on risk management or some form of it is more than those who have a formal risk structure. This means that many Organisations do not have a deliberate unit dedicated to managing risk, but they manage it informally and they spend funds to mitigate the probable risk.

This was further consolidated by another frequency run in the same pattern shown in Figure 4.13 on the expenditure priority attached to risk management for all the firms engaged. About close to half or 45.5% gave a high priority of the resources towards risk management in their budget while 54.5% only attached need-based importance to it. This confirms that the degree to which firms allocate resources on RM determines the extent to which priority is attached to RM.

These findings agree with the observed pattern both in the literature and other empirical findings. As the business crises increase, Organisations are embarking on risk management subconsciously across all industries. Some sectors such as agriculture and new business start-ups are receiving funding support to mitigate risks while others are forced by rules. This was also documented in Matthews, Salvatici, and Scoppola (2017)'s research, which found that while if funding for risk management through groups such as the EU budget was restricted, member states nevertheless offered help from their resources under the general guidelines for state aids. Insurance plans and disaster relief were among the types of assistance provided. This explains why the proportion for funding for risk management is relatively more than the proportion of those who have formal risk management. This finding also aligns with the adopted contingency theory in the theoretical framework. The agency information problem was pioneered by Jankensgrd (2019), who recognised that contingency theory is critical in current risk management because it aims to uncover alternative design characteristics that might explain the substantial observed diversity in how ERM is applied.

However, when a focus was made on the financial institutions rather than the general picture as per the stated research question and objectives the results were different. A cross-tabulation between all the types of firms involved and the way expenditure is done – whether budgeted or

Adhoc was run, and it was seen that the firms from the financial sector had more observed values on budgeted than expected as compared to ad-hoc expenditure. The opposite was the case with Non-Financial and Other firms who showed an expected value exceeding the actual observed for budgeted more on observed than expected on ad hoc expenditure. Refer to Table 4.2 for the distribution of findings.

This observed pattern reveals that financial institutions are fully embedded into budgeted expenditure on risk management than non-financial or other firms who are more inclined to spend on Adhoc or when the risk has crystalised. Hence the finding to objective 1 which is meant to ascertain if there is a proportion of resources in the budget allocated towards management of risks by business organisations in Zambia and other developing countries has been confirmed to be positive. According to Tursoy (2018), financial organisations such as banks are considered hazardous enterprises, and banks often manage those risks as part of their routine operations. This explains the observed pattern of financial institutions such as banks registering a proportion of resources on RM because they are very concerned about possible risk difficulties, and they are always working to enhance the risk measurement system in accordance with the most recent legislative demands (Abbas, Haider, Zainab, Hassan, & Fazal, 2018).

Hypothesis 1

H₀: There is no proportion of resources in the budget allocated towards risk management by business organisations in Zambia and other developing countries.

To do so, a non-parametric test Chi-Square statistic was used to examine the Industry type category variable and the resources allotted in the budget. A null hypothesis implies that there is no association between the categorical variables in the population; or that they are independent, whereas an alternative hypothesis states that the observed values are statistically significant. As shown in table 4.1, the degree of statistical significance is given as a p-value ranging from 0 to 1,

65.2% of the financial institutions allocate resources towards risk management while only 23.5% allocate resources towards risk management and only 17% from others assign resources towards risk management. at the worked 4 df or one less the total number of possible outcomes and the P-value of $1.57e^{-0.7}$ or 0.0014 ($P < 0.05$), this results in rejecting the null hypothesis and accepting the alternative hypothesis which implies that the figures are not out of mere chance and hence there is a proportion of resources in the budget allocated towards risk management by business organisations in developing countries. The **Phi coefficient** (degree of association) was 0.486 which is a moderately strong association range between variables.

Qualitative assessment from the interviews

The evidence from the interview sessions revealed that the value of allocation did not matter between financial and non-financial institutions. What appeared to have a significant feature is the deliberate addition of a line in the budget that covers the costs of risk management. For example, a recap of the responses to the interview question elaborates more on this fact.

Question: How much resources from your Organisation budget are allocated towards risk management?

Interviewee 2 (Male, 38 Senior Management): *“Much is allocated if necessary but there is no standard” The expenditure is done when we see the need. (From Non-financial Institution)*

Interviewee 8 (Male, 48 Director): *“No specific budget line for risk management..... expenditure is done as part of activities on the market, training and managing the changes Can go up to “about 30% of the budget” (From Non - Financial Institution).*

“We allocate about 15% of our total yearly allocation” (From Financial Institution, Interviewee 3, Female 36, Senior Management).

Note that one of the NFI reported double allocation (30%) than a FI (15%), the difference was that a FI has a specific amount while an NFI has no specific what determines is the need at the time.

4.5.4 Research Objective, Question and Hypothesis 2

The research objective and question two were as stated;

Research Objective 2. To establish the factors that strongly influence the integration of risk management in business organisations in Zambia and other developing countries.

Research Question 2. What significant factors influence the integration of risk management in business organisations in Zambia and other developing countries?

Specific elements obtained from the literature were highlighted in the conceptual framework as a possible cause of influence on the integration of risk management in organisations. The outcomes of each of them were reported in the preceding part, and this section examines them one by one.

1. Industry type

As shown in section 4.3, the perceived influence of industry type on the risk management integration (RMI) was indicated in Figure 4.14, about fifth or 20.4% of the respondents reported that industry type does not affect the RMI, 41.5% indicated that it has a strong effect, 38.1% that industry type has a very strong influence on RMI while none indicated a weak or very weak influence. This shows that the majority of respondents close to four-fifths or 79.6% rated the type of industry as a strong or very strong determinant of RMI in an Organisation.

This volatility in risk effect theoretically supports the concept of systematic risk, also known as industry or business risk, which cannot be restricted or diversified away (Vongphachanh & Ibrahim, 2020). The presence of industry risk variations which makes up the systematic risk gives rise to the measurement of betas which also varies across industries (Wagdi & Tarek, 2019).

Empirically, this factor was confirmed by many researchers. For example, it is widely reported that industry-related risk affects the risk management strategy across all industries (Huang, Liu & Lu, 2019) and that industries such as banking have in place strong international committees spearheading the full adoption of risk management such as the Basel Committee (Tursoy, 2018). This basis explains the reason for the observed pattern which led many respondents to attach a varying priority to the integration of risk in their Organisations.

2. Managers Motive

The influence of managers' motive on the investment decisions of the Organisation as to whether to serve self-interest or those of Organisation was tested to check if they have on Organisations risk management integration (RMI). The results shown in Figure 4.15 indicated that one fifth or 22.4% felt that there is a very strong relationship between the motive of the managers and the RMI in an Organisation and over half or 52.4% felt there is a strong influence. Slightly above one fifth or 23.1% said the manager's motive does not influence the degree to which risk management will be integrated into an Organisation while traces of respondents rated the influence to be weak (1.4%) and very weak (0.7%).

The findings indicate that the motive that the manager holds in serving an Organisation will determine the levels of risk management integration and over three quarters combined at least suggested a strong link. They can have an urge to eagerly take risk measures or not as per motive. Theoretically, this is supported by the agency theory proposed by Smith and Stulz (1985) and supplemented by current scholars such as Jankensgård (2019) where it is argued that the nature and extent of risk management in any Organisation will be determined by the problems that border on governance. The Governance problem also called the agency problem of corporate risk management is understood to have a situation where agents who are identified as managers have interests and behavioural biases that conflict with the best interests of the principal who are the shareholders. Other historical ideas that describe the function of a manager's motive include Rogers (1975) protection motivation theory (PMT), which explains attitude modification through

a fear appeal and RM behavior (to send effective signals to avert dangerous activities) (Stainback & Rogers, 1983; Stanley and Maddux, 1986).

According to Kim (2019), good risk management (RM) needs both proactive and reactive actions, with line managers playing a significant role as essential players in RM behavior. To investigate the factors influencing managers' RM intention, he created a structural system based on the theory of reasoned action and the theory of the firm. He performed a survey of 150 top executives from six big Korean food corporations' diverse departments. According to one of his research, individual traits (behavioural belief in RM, social pressure, and RM knowledge, to mention a few) favourably enhance RM intention.

3. Manager's Attitude

The third factor tested was the influence of managers' attitudes towards risk. The three attitudes are risk-takers, risk-averse, and those who are risk-neutral and the effect it has on Organisations risk management integration (RMI). Figure 4.16 reported that nearly one fifth or 17.7% felt that there is a very strong relationship between the attitude of the managers towards risk-taking and the RMI in an Organisation and over half or 55.8% felt there is a strong influence. About one fifth or 23.1% said the manager's attitude does not influence the degree to which risk management will be integrated into an Organisation while very few of respondents rated the influence to be weak (2.7%) and very weak (0.7%).

The findings indicate that the influence of the manager's attitude on RMI in developing countries is ranging from strong to very strong ratings. The majority confirmed that they attach a strong influence while a few just one fifth felt there is no influence, or it is weak as managers might be dragged by established policies and regulations to implement them against their will.

In theory, this is described by the model proposed by Sitkin and Pablo (1992), who grouped current techniques to predicting people's risk-related behavior into three groups based on individual, organisational, and issue characteristics. Risk preferences, risk perceptions, and risk propensity

were identified as the three individual qualities that significantly govern people's risk-related behavior. According to this model (Sitkin & Pablo, 1992), the components directly impact risk behavior, and they also function indirectly through the mediation effects of risk propensity and risk perception. This model together with the agency theory proposed by Smith and Stulz (1985) qualify the relevance of the manager's attitude in the RMI and explain the observed pattern of strong rating of the factor on the dependent variable.

Indrawati (2020) demonstrated empirically that genuine alternatives occur as a result of managers' ability to adjust time, size, and other features of their operations in response to market developments (Brigham & Dave, 2016). He went on to say that these activities are dependent on management's risk-taking attitude, with risk-averse managers lowering investment in response to demand uncertainty, whilst risk-taking managers respond positively (Bo & Sterken, 2006).

4. Board Insight

This factor measured the effect of RMI when the board is given accurate information about the risk profile of the Organisation and the results in Figure 4.17 showed that 17.7% felt that there is a very strong influence on RMI, 48.3% felt there is a strong influence. About one third or 30.6% said the board knowledge about the risk profile of the Organisation does not affect RMI. A trace of respondents (2.7%) felt that there is a weak and very weak (0.7%) influence on RMI.

The findings suggest that majority up to a minimum of two-thirds of the Organisations rate board insight between strong and very strong influence on RMI. Those who rated as no effect were mostly the ones without the board or had not strong governance in their structure of operations. A negligible ratio like in other factors rated the link to be weak or very weak.

According to Harris and Raviv (1996), the information problem emerges from the way managers gather information on risk exposures that is utilised to support centralised decision-making regarding the firm's entire risk-return profile and economic capital deployment. This results in the information dilemma of corporate risk management, where a chasm is formed between the top and

bottom. Operational sections that have expertise but do not freely share it with the Board of Directors are in charge of delegating responsibilities in a company. This gives an elusive picture of the overall Organisation on which the board bases its risk management decisions.

Ishak and Mohamad Nor (2017) revealed that in most cases, BODs discuss company matters in BOD meetings, and that regular meetings encourage open conversation and communicate effectively among BODs members in their paper on the concept and the functions of the board of directors (BOD) in the formation of the risk management committee (RMC) for Malaysian public listed companies (PLCs). As a result, one of the steps taken by BODs to understand risk management operations in the Organisation in order to make better decisions is to increase the number of BOD meetings held during the financial year. Liew, Mat Zain, and Jaffar (2012), on the other hand, found no link between BOD meetings and the formation of RMC, just as we did in this study. Yatim (2010) found a link between BOD meetings and the formation of RMC in a previous research. This led Ishak and Mohamad Nor (2017) to the conclusion that, hypothetically, If the BODs are cognisant of and proactive in tackling risk issues, they want to create a new board subcommittee to discuss the issues in further depth.

5. Internal – External Best fit

The fifth factor evaluated the perceived need for the best fit between internal and external environment which an Organisation wants to respond to the dictates of the environment needs. Figure 4.18 of section 4.3 indicated that close to one third or 28.6% reported that the Organisation in need of fitting its internal to the external environment will be very strongly influenced to integrate risk management in its operational process, half or 50.3% said there will be a strong influence on Organisation RMI, one fifth or 20.4% said there will is no effect and 0.7% said there will be the weak effect, but no one (0.0%) rated a very weak relationship between internal-external fit and RMI in Organisation.

The findings revealed that close to a total of four-fifths of the Organisations felt that internal-external best fit has a strong or very strong influence on RMI. This means that a typical

Organisation will be prompted to set up and eagerly pursue an RMI programme to meet the demands of the environment. One-fifth of those who reported a no relationship were those Organisations mostly under the government with most conditions dictated by the government and regulators.

Theoretically, this is explained by the contingency theory such as that of Mikes and Kaplan (2014) who summarised the best-fit minimum variables that an Organisation can mix in a contingency framework to achieve Organisation effectiveness. Figure 1 in chapter two showed the contingency variables that can be triggered by different risk types such as those emanating from internal or external.

In their research, Yang-Ngam, Chankoson, and Aodton (2019) found that Indonesian supply chain companies lacked information system (IS) risk management implementation, owing to internal and external issues that harmed performance to the point where the companies' production performance fell short of expectations. Internal and external variables have a considerable influence on the implementation of supply chain risk management, according to the findings of their research. Internal characteristics recognised as having a favourable impact on IS risk management adoption were organisational culture, structure, and management commitment. While external factors included competitive pressure also has an important role. Hence findings on the Internal – External Best fit agrees with both the theory and the empirical findings in different setups.

6. Firm Size

The influence of Organisation size (in terms of space and number of employees) towards Organisations risk management integration (RMI) was as shown in Figure 4.19 of section 4.3. It was found that slightly above one fifth or 23.1% felt there is a very strong relationship between the firm size and the RMI in an Organisation and 54.4% that their Organisation size strongly influences the extent of RMI. About one fifth (21.8%) said that their Organisation size has no influence on the degree to which risk management is integrated into the Organisation while 0.7% said there is a weak effect, and none (0%) reported a very weak relationship.

The findings revealed that the majority of over three quarters qualified the size of the firm to have strong or very strong influence combined on RMI. The bigger the size of the firm, the more likely it is going to implement the RM programme due to the increased exposure. One fifth still felt the size of the Organisation does not affect the ERM integration. The negligible ratio rated the association between the two variables to be weak or very weak.

According to Ghazali and Chariri (2007), the famed Stakeholder Theory, which says that corporations are not entities that only operate towards their own needs, but must also give benefits among all users linked to the interests of the firm, explains this trend logically. Larasati and Asrori (2020) used this theory to show that as the number of parties involved with corporate information and the firm's responsibility for that information grows, large organisations will be required to reveal more information than smaller ones. The public responsibility of huge corporations is greater and broader. The risk management disclosure of the firm increases as the organisation grows larger.

Empirically, Alashwal, Abdul-Rahman, and Asef (2017) collaborated on a research that explored the effect of organisational learning on risk management maturity (RMM) in 132 small and big construction businesses in Malaysia, using firm size as a moderating variable on RMM. It was discovered that information acquisition and shared interpretation have a considerable impact on RMM, and that company size mitigated the link between shared interpretation and RMM. It was suggested that smaller organisations should put more effort into common interpretation of information in order to improve their maturity level. Numerous studies have also found that corporate size has a considerable positive effect on risk management disclosure, with larger companies performing better in this area (Larasati & Asrori, 2020; Amran, Bin & Hassan, 2009).

7. Organisation Structure

The influence that the presence of risk management structure has on the risk management integration was as shown in figure 4.20 of section 4.3. Of the respondents engaged 43.5% and

10.2% indicated that there is a strong and very strong influence that the presence of a risk structure has on RMI respectively while 42.9% said that there is no effect a risk structure will have on the RMI. While 3.4% cited a weak relationship, none (0%) indicated a very weak relationship on RMI. The findings reveal that just about half feel risk structure in an Organisation has a strong or very strong influence on RMI and also close to the same proportion rated the risk structure to not affect the implementation of the integration of the ERM. This was consistent with the higher number of respondents who reported having some type of risk management, but they do not have the risk department in their structure. This was also true of resource allocation towards risk management where a higher proportion indicated that they allocate funds in the budget than those who said they have a risk department in place.

Theoretically, Silva and Fernandes (2019) applied the contingency theory for risk management as an interrelationship of three factors that make up the best fit mix of Organisation structure, strategy, and risk management process. The strategy is a predictor, the structure will be adjusted to meet the demands of the strategy and then an appropriate risk management system will be aligned to reduce issues of bureaucracy in the structure. Hence the findings agree with the theoretical framework under the contingency theory.

Girangwa, Rono, and Mose (2020) conducted empirical research on the moderating influence of intellectual capital on the link between enterprise risk management ERM practices and organisational performance of Kenyan state businesses. The findings revealed that ERM structure practices had a positive and significant impact on organisational performance, and because ERM structure, governance, and risk management process practices improve organisational performance, they recommended that risk management practices be integrated across all functions. A high rate of no effect was also observed by Tamimi (2021) in Palestine who reported that some executives believe that there is no need to pay attention to risk management departments because their costs are more than their benefits, and internal audit departments carry out the tasks of these departments. However, he suggested that the board and senior management should pay attention

to the risk department, and the need for coordination between these departments to achieve the best.

8. *Risk Frameworks*

The risk management integration was linked to the presence or absence of a risk framework. Refer to Figure 4.21 in section 4.3 which shows that more than half or 54.4% said risk frameworks have a strong influence on the RMI and 8.8% attached a very strong influence on RMI. Slightly more than a third or 32.7% said the presence of the risk framework does not affect the Organisation RMI. None (0%) attached a very weak relationship and 4.1% said a weak relationship exists between the Risk framework and RMI.

The findings point to the fact that close to two-thirds of the respondents rated the risk framework to be strongly or very strongly related to RMI. Still, a large proportion goes for no effect which was the case for many Organisations which have no risk frameworks but only manage the mitigations by instinct or Adhoc. Traces of respondents attached a weak or very weak relationship. Hence Risk framework is reckoned among the significant factors determining the degree of RMI in an Organisation.

Theoretically, the risk framework has been known to be key to Organisation management. The theory of risk framework is taken to be a set of elements and programmes that an Organisation has put in place to manage both the firm-specific (unsystematic risk) risks and industry, or market-based (systematic risks) risks as well as other upcoming risks during the operation (Mishra, Rolland, Satpathy & Moore, 2019). This understanding explains the observed pattern of finding where most financial institutions reported having a strong relationship between variables to manage both systematic and unsystematic risk.

Nawaz, Waqar, Shah, Sajid, and Khalid (2019) validated the lower-than-expected levels of risk management framework in organisations in a survey-based study that was undertaken to evaluate the risk management framework practices utilised in construction projects in Pakistan. Data was

gathered from 22 contractor businesses operating on 100 different projects to meet the goal. According to the findings, risk management was done at a low level in the local area. During the credit crunch a decade and a half ago, many Organisations were subjected to regulations, and it was noted that the adoption of enterprise-wide risk management frameworks and other best practices is also driven by regulations themselves, which focus the business on operating the “right way” as a normal business practice (Abrams, Von Kanel, Muller, Pfitzmann & Ruschka-Taylor, 2007).

9. Risk Management Regulations

The effect of risk management regulators and international standards for compliance were assessed to be affecting the extent of risk management integration in the Organisation. Figure 4.22 showed that 1.4% of rated regulators have a weak influence on RMI, 23% said there is no effect on their Organisation RMI while a total of 74.8% said there is a very strong or strong (55.8%) influence.

The findings highlight the point that the presence or absence of the regulators on risk management will strongly influence the RMI of an Organisation. Three quarters rated the regulators to be the significant factor and only one fifth to have no effect. This implies that most Organisations do not create risk management frameworks out of their accord but under compliance obligations.

In theory, Abrams et al. (2007) explained the theory of Enterprise Risk Management Continuum, where businesses evolve their response to risk along with a Risk and Compliance Maturity Continuum in the comply stage, where they start with a penalty avoidance strategy or comply stage, then move to optimise stage, and finally to transform stage, where they leverage compliance for competitive advantage, as shown in the diagram. This means that businesses will employ RMI to comply with rules, avoid penalties, or gain a competitive edge.

Empirically, Borraz et al (2020) found important differences in the conception and targeting of risk-based inspections by regulators where some Organisations are under aggressive regulators and will always compel the Organisation to comply to risk management guidelines.

10. Risk Management Tools

The other factor which was evaluated to affect the RMI in Organisations was the presence or absence of risk management tools used to effectively identify, measure, analyse and report on risk exposures to come up with mitigations. Figure 4.23 indicated that more than half (56.5%) said availability or lack of the risk tools strongly affected the RMI of the Organisation. One-tenth (10.2%) said there is a very strong relationship. About a third (28.6%) said there is no effect and 4.8% had a weak effect.

The findings gave the impression that two-thirds of the proportion of the Organisations are strongly affected by the risk management tool in the implementation of the RMI. This means that they could be willing to undertake the full integration, but the lack of tools significantly affect them. One-third of the total reported that there is no relationship or if any then it's weak between the Organisation desire to implement the RMI and the presence or lack of the risk management tools.

In theory, these observed results agree with American scientist Markowitz who coined the idea that was the first to downplay the risk (Rosenberg & Schuermann, 2006). He suggested that the financial decisions had to be made based on risk and return and that the result of these decisions formed a line and all points on this line were optimal. This is where risk measurement tools were justified to start measuring such indicators such as beta which measures the movement of a stock against the movement of the market to arrive at relative risk (Walls, 1994), or later measurement to measure risk in terms of changes in the price of fixed-income securities against interest rate changes. Such a need for knowing risk parameters explains the reason for the lack of or presence of risk measurement tools. Some of these tools include

Empirically, Tarek and Kokh (2020) concluded that a bank's capacity to completely measure, manage, and control risks is becoming a critical criterion for strategic positioning. This empirical discovery is applied to other organisations, and it explains the trend of high risk measurement tool ratings seen in this study. Khodadadyan, Mythen, Assa, and Bishop (2018) conducted a research to investigate risk assessment perceptions and the extent to which risk assessment tools and

methodologies are used by organisations. Public risk regulatory organisations from the United Kingdom, Germany, France, Belgium, and the Netherlands were studied using a semi-structured data analysis, both qualitative and quantitative. The findings revealed that in the risk assessment process, public risk management organisations primarily employ a variety of tools and methodologies.

11. Risk Management Resources

The resources available to execute for risk management and the effects they have on the RMI is as shown in Figure 4.24. More than half or 61.2% said that the availability or lack of the risk management resources strongly affected the RMI of the Organisation. Almost fifth or 17.7% said there is a very strong relationship. One fifth or 20.4% said there is no effect and less than 1 % (0.7%) rated a weak effect on Organisation RMI.

This finding gives the solid position that many Organisations to a majority of four in every five rated that resources towards risk management are a strong determinant of the integration of RM in the Organisation. While one in every five rated that resources cannot affect the integration of risk management in the Organisation if it is serious to do so.

In theory, an organisation's strategic position is influenced by a combination of its resources and capabilities, the external environment, and stakeholder expectations and influences (Johnson, Scholes & Whittington, 2005). Organisations that want to maintain their strategy optimised RMM level must update their risk management procedures on a regular basis, secure top management commitment, and invest in risk management resources. 2014 (Mu, Cheng, Chohr, & Peng) The importance of rating resources as a cornerstone to risk management maturity is backed up by the recurrent idea of resources in these theoretical investigations. To support this idea, Bashir (2020) discovered that achieving high-risk management maturity (RMM) allows for effective risk management, greater resource utilisation, and project result assurance.

Among other things, the adoption of formal risk management (RM) practices, the implementation of Organisation-wide policy on RM, and the engagement of professional staff competent in technical or management aspects of highway construction revealed that the barriers to achieving higher RMM could be overcome by the adoption of formal risk management (RM) practices, the implementation of Organisation-wide policy on RM, and the engagement of professional staff competent in technical or management aspects of highway construction (2020). According to the study, maintaining the ultimate level of maturity conundrum includes maintaining a strong financial foundation, continuing to invest in human, technical, and risk management resources, as well as maintaining quality control in the procurement process, strategic political goodwill, and satisfying clients.

12. Environmental Changes and Threats

The last factor to be considered is the effects of environmental changes and threats to business fall on risk management integration. Figure 25 in section 4.3 indicated that three quarters had reported threats and changes in the environment are very strong (42.9%) and strong (34.7%) influence on the RMI of the Organisation. One fifth or 21.8% said there is no effect and less than one % (0.7%) rated a weak effect on Organisation RMI.

The findings have summed up the strength of the influence on threats and changes on RMI in the Organisation. Four-fifths rated the factor to be either strong or very strong influence only a fifth rated a no effect relationship. This showed that environmental changes and threats to Organisation significantly affect the degree of RMI.

The contingency theory, which works on the interaction of the Organisation with the external environment, is one of the two backup theories (Sae-Lim, 2019) Huff, Floyd, Sherman, and Terjesen (2009) added that while developing effective strategies for business organisations, five key elements must be addressed. First, the Organisation must convey a compelling vision to its workers and external stakeholders in order for them to grasp what it stands for. Second, there must be a solid link between the Organisation's internal strengths and external market prospects. The

other three were to create more resources than needed, as well as logical coordination of efforts directed toward success. Finally, the Organisation must be prepared to adapt to changing external business conditions. The significance of the factor under examination is determined by the first and last factors.

Empirically, it has been established that the volatility of the market and environment where an Organisation operates will prompt it to adjust the risk management framework, change the motive and attitude of the managers and eventually redefine the risk management integration levels (Morris, 2019; Kulkarni, 2017).

Hypothesis 2

H₀: The extent to which risk management is integrated into the Organisation is not influenced by an industry where a firm operates in developing countries.

Taking the two variables where the independent variable is industry type and risk management integration as a dependent variable, the hypothesis test was run taking the mean value to be greater than 3 (anchor rating from 1 = very weak to 5 = very strong, and 3 = no effect). The **T-test (146 df)** and the Z test were run setting **alpha which is α at 95% (or 0.05) confidence threshold or significance** level to yield the results shown in Table 4.3 of section 4.3 which has been replicated below;

The results yielded an average mean of 4.77 indicating a range of strong to very strong influence in both the **t and Z** test at 146 degrees of freedom at n of 147, respectively. The p-Value for the t-test was a scientific **$7.28e^{-42}$** (numerically = 0.0000) at the upper one-tailed (greater than 3 to the right). The P-value under the Z test was also zero which in both tests **p value < 0.05**.

Table 4.3 Hypothesis 2 Test - Significance of Industry on RMI

Hypothesis Test: Mean vs. Hypothesized Value

3.000 hypothesized value
 4.177 mean INDUSTRY EFFECT ON RMI
 0.747 std. dev.
 0.062 std. error
 147 n
 146 df

19.11 t
 7.28E-42 p-value (one-tailed, upper)

Hypothesis Test: Mean vs. Hypothesized Value

3.000 hypothesized value
 4.177 mean INDUSTRY EFFECT ON RMI
 0.747 std. dev.
 0.062 std. error
 147 n

19.11 z
 0.00E+00 p-value (one-tailed, upper)

4.056 confidence interval 95.% lower
 4.298 confidence interval 95.% upper
 0.121 half-width

Test decisions are;

Summary decision: Reject Null and Accept Alternative hypotheses

Assert/Affirmation: It is at 95% certain that the extent to which risk management is integrated into developing countries is significantly influenced by the industry where a firm operates in

Association: Strong to Very Strong association of variables

4.5.5 Research Objective, Question and Hypothesis 3

The research objective, questions and hypothesis number 3 areas stated thus;

Research Objective 3. To determine whether business organisations have internal risk frameworks that comply with international risk guidelines in Zambia and other developing countries.

Research question 3. Do business organisations have internal risk frameworks complying with international risk guidelines in Zambia and other developing countries?

The call for risk management integration comes with the need to establish a framework that is functional and viable. The objective was focusing on the business organisations and the assessment was extended to both the financial and the non-financial institutions which were equally engaged to test the presence of risk management frameworks that are levelled with international standards. For this objective, two variables were used and are evaluated in the next section.

Risk Management Frameworks and Tools

Concerning Figure 4.26 of section 4.3, it was reported that close to half (45.5%) of the respondents had no risk management framework, 27.3% said that they have a standard or robust risk management framework such as COSO or ISO 31000 framework. The same proportion mentioned that they have no specific framework, but they use traditional or instinctive methods of managing risk. When it comes to risk management tools, Figure 4.27 revealed that more than one third (34.7%) reported that they do not document any risk analysis results. A little more than a quarter (27.9 percent) reported having basic risk management tools in place, with risk evaluation findings recorded as risk heat maps or risk registers. Only little more than one-tenth (13.6 percent) reported employing advanced risk management procedures, with risk analysis results captured in the form of corporate critical success factors based on risk (Value at risk, Cashflows at risk, Earnings at Risk, RAROC, KPIs at Risk, and Schedule at Risk).

The findings indicate that in general, only about a third of Organisations have in place robust risk management frameworks and this is known to be lagging. Over 70% cited that they either have no specific or completely no framework at all. Similarly, over four-fifths of the Organisations in essence had either a mere basic or literally no risk management tools in place

This pattern has been confirmed empirically and much of the frameworks set up are not for their own sake but due to regulatory purposes to meet compliance needs (Nawaz et al., 2019; Abrams et al., 2007).

This test was a neutral test that was mixed with non-financial institutions and other Organisations. This was meant to give the general and overall distribution of the variable across the entire scope. However, to meet this specific objective, there was a need to narrow down to specific sectors so that it is known from which industry those frameworks are being created. This is handled by hypothesis number 3 that follows.

Hypothesis 3

H₀: Business organisations in Zambia and other developing countries do not have internal risk frameworks that comply with international risk management standards.

The cross-tabulation of the three industries against the levels of risk management tools sophistication to measure the frameworks involved was run. The Chi-Square test was run at 8 df with 147 observations to assess the observed value of each industry against the expected value. It was established that only financial institutions had advanced risk management tools in place making up a total column of 100% and a row proportion of 33.3% of the total financial institution responses. Of the non-financial institutions, over two-fifths or 41.7% did not document the risk results and 29.2% were not even eligible to answer the question since they did not have the risk management programme in place. A total of less than one third or 29.2% of them have management tools in form of risk heat map/risk registers, no advanced tools.

The **P-value of $1.30e^{-11}$** in scientific value is equal to **0.00002171** led to the rejection of the null and end by accepting the alternative hypothesis that there is **95%** certainty the results did not happen by mere chance and that financial institutions in developing countries have internal risk frameworks that comply with international risk management standards.

Table 4.17 Risk management Tools

			RM TOOLS USED					
			Not Documented	Documented Heatmap/Risk Registers	Advanced with indicators at risk	Other	Not Eligible to answer	Total
	Financial	Observed	17	23	20			60
		Expected	20.82	16.73	8.16	0.41	13.88	60.00
		% of row	28.3%	38.3%	33.3%	0.0%	0.0%	100.0%
		% of column	33.3%	56.1%	100.0%	0.0%	0.0%	40.8%
INDUSTRY		% of total	11.6%	15.6%	13.6%	0.0%	0.0%	40.8%
	Non-Financial	Observed	20	14			14	48
		Expected	16.65	13.39	6.53	0.33	11.10	48.00
		% of row	41.7%	29.2%	0.0%	0.0%	29.2%	100.0%
		% of column	39.2%	34.1%	0.0%	0.0%	41.2%	32.7%
		% of total	13.6%	9.5%	0.0%	0.0%	9.5%	32.7%
	Other	Observed	14	4		1	20	39
		Expected	13.53	10.88	5.31	0.27	9.02	39.00
		% of row	35.9%	10.3%	0.0%	2.6%	51.3%	100.0%
		% of column	27.5%	9.8%	0.0%	100.0%	58.8%	26.5%
		% of total	9.5%	2.7%	0.0%	0.7%	13.6%	26.5%
	Total	Observed	51	41	20	1	34	147
		Expected	51.00	41.00	20.00	1.00	34.00	147.00
		% of row	34.7%	27.9%	13.6%	0.7%	23.1%	100.0%
		% of column	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of total	34.7%	27.9%	13.6%	0.7%	23.1%	100.0%
			67.88	chi-square				
			8	df				
			1.30E-11	p-value				

Source: Author (2022)

Summary decision: Reject Null and Accept Alternative hypotheses

Assert/Affirmation: It is 95% certain that the financial institutions in Zambia and other developing countries have internal risk frameworks that comply with international risk management standards.

Association: Strong to very strong association of variables

Andronache (2019) said in support of the results on financial institutions that the financial industry is encouraged to use RMI not just for compliance or assurance, but also for increased return on investment, compliance, and effectiveness. In Taiwan, it was discovered that enterprise risk management (ERM) adoption improves the financial industry, with data indicating that a financial organisation applying ERM benefits by adding 5.37 percent value compared to non-users (Chen, Chuang, Huang & Shih, 2020). It was observed that having a strong system to deal with a range of risks quickly and in accordance with the Organisational strategy has always been something that Organisations strive to achieve (Andronache, 2019). This agrees with the findings that while financial institutions have shown a pattern of a high degree of risk frameworks, other Organisations are struggling to accomplish them.

4.5.6 Research Objective and Question 4

The research objective and question 4 presented on ten variables in section 4.3 are evaluated and a recap is stated as;

Research Objective 4: To determine the extent of risk management integration across different firms and industries in developing countries.

Research question 4: What is the extent of risk management integration across different firms and industries in developing countries?

1. Risk Management Integration (RMI) In Planning and Budgeting

Table 4.5 of Section 4.3 shows the levels at which risk management was embedded into organisational planning and budgeting. Only nearly a third (31.7 %) of financial institutions said risk management is incorporated directly into planning and decisions are made based on risk analysis, while none of the non-financial and other organisations said the same. Another one third (33.3%) from Financial, but over half (54.2%) from Non-Financial and 35.9% from others reported that Risk Analysis Results are not used to set goals, or for budgeting, but on Adhoc and, unformalised. Financial institutions accounted for 35.0 %, with non-financial companies accounting for 14.6 percent and others accounting for one-tenth (10.3 %) of the total. Risks related to strategic goals are assessed after the strategy or budget has been approved, or on a post-factum basis, which is reactive rather than proactive..

The results showed that only a significant proportion of financial institutions are engaged in ensuring that RMI is fully embedded in the planning and budgeting processes and non from other categories indicated this level of risk integration. Many of those in NFI have only reached a stage of either Adhoc or post factum application of risk management. This suggests that there is a large variance in risk management integration across organisations and industries, with financial institutions having the most integration and others having the least.

In their research on large engineering projects (LEP), it was noted that participants converged on the fact that their companies face different types of risks, like financial, technical, Organisational, country-related and political (Cantoni, Favari & Pagnone, 2019). This explains why companies in various industries, such as finance, engineering, and health care, may have such high levels of risk management integration. Risk must be included in all strategic planning and decision-making processes (Haney, Church & Cockerill, 2013).

2. Risk Analysis effect on Objectives

The influence of risk analysis findings on the development of Organisation objectives was also used to analyse the level of RMI among organisations. According to Table 4.6, risk analysis results have a direct influence on the modification of set initiatives and plans for nearly a quarter of

financial organisations (26.7 percent), one-fifth (22.9 percent) of non-financial organisations, and one-fifth (20.5 percent) of other sectors. According to half of financial institutions (51.7 percent) and 45.8 percent of non-financial institutions (45.7 percent), strategic objectives are typically adjusted when risk events occur and losses are incurred, with only 28.2 percent of others stating. According to one-tenth (11.7 percent) of financial organisations, the outcomes of risk assessments are not directly tied to the accomplishment of strategic goals and budgets. Another 10% gave other reasons while one-third of non-financial were not even eligible to answer this question and a half or 51.3% from other institutions were not eligible to answer.

The cross-tabulation results show that more than three-quarters of financial institutions have risk analysis results that directly impact the modification of objectives and budgets, or they are changed after a loss. The same is the case with non-financial institutions. What is clear here is that while firms are involved in risk management, the majority of them be it financial or non-financial act on post-factum after they have incurred the cost or after events.

The reason for this post factum or the high proportion of analysis coming after events or losses have been incurred is explained by the very nature of risk. Risk in the international standard of ISO 10006: 2003 has been used as uncertainty about both positive and negative aspects. Others have explained that risk is the probability of the occurrence of an unknown incident in circumstances in which it could cause problems (Taghipour, Shabrang, Habibi, & Shamami, 2020). This degree of uncertainty is the major reason for the after-math application of risk management as it usually brings events that have to be leant by the Organisation aftereffects on objectives in most cases.

3. RMI In Decision Making Process

The extent of integration of risk management was also measured in terms of the levels to which risk management is integrated into the decision-making process. According to Table 4.7 of Section 4.3, 65.0 percent of FIs, 16.7 % of NFIs, and 10.3 % of others made key choices after completing rigorous risk analysis. Approximately one-third (31.7%) of FIs, more than half (52.1%) of NFIs, and more than one-third (34.9%) of others answered that risk analysis is undertaken only for certain

key choices, but only on an ad hoc basis. Only 3.3 % of FIs, 2.1 percent of NFIs, and 2.6 percent of others reported that strategic choices are made without any systematic, organised, or transparent risk analysis. A third from NFIs or 29.2% and a half from other firms were not eligible to answer this question.

The results have indicated that FIs are highly involved in integrating risk management in their decision-making process over two-third for most of the decisions and one third only for those signs.

A high proportion of those fully engaging RMI in the decisions is explained by the nature of the services offered. Financial institutions like banks lend out funds and receive deposits. Credit management calls for risk assessment at all levels from onboarding to fully paying off. This calls for strong regulations, interest to make profits and compliance among other reasons (Andronache, 2019; Nawaz et al., 2019; Abrams et al., 2007; Chen, Chuang, Huang & Shih, 2020).

4. Board Meeting Risk Management Discussions

The RMI assessed in terms of board meeting risk management talks is provided in table 4.8 of section 4.3. Less than one-fifth (18.3 percent) of FIs, almost one-third (27.1 percent) of NFIs, and one-fifth (20.5 percent) of the others reported that concerns about risk management are not on the board Committee's meeting agenda. While 5.0 percent of FIs, 8.3 percent of NFIs, and none from others answered that risk management problems are addressed at the Board on an ad hoc or periodic basis. Over three quarters (76.7%) of the FIs, one third or 33.3% of NFIs and one fifth or 20.5% of others cited that issues of risk management are presented to the Board in a systematic, consistent and broad manner.

Financial institutions registered a higher proportion of board engagement and dedicated discussions on risk management. Other Organisations also registered a relatively highest proportion of agendas for risk management in board meetings. This revealed that even if Organisations may not have risk departments or programmes, they still discuss risk matters in board meetings.

In agreement with this, effective risk assessment, reporting, and control serve to increase a board's governance and internal control operations, according to Ashby, Bryce, and Ring (2018), but it's less obvious how board-level risk management debates and practices are evolving and improving. Their research revealed that board-level conversations and practices vary, and that this variation does not always reflect the nature, scale, or complexity of an Organisation's activities, but rather demonstrates a wide range of good practices across both larger and smaller organisations in a variety of for-profit and non-profit sectors. This empirical evidence shows that Organisations are moving towards governance compliance. Risk management frameworks are outlined in combination with recommended governance structures and one common recommendation is to put risk high on the agenda by creating respective structures (Aebi, Sabato, & Schmid, 2012).

5. Documentation of Risk Analysis Outcomes

The integration of risk management was also measured in terms of how the documentation of the risk analysis outcomes is done. Table 4.9 shows that 60.0% of the FIs, 14.6% of the NFIs and none from other categories reported that the outcomes of risk analysis are documented for accompanying each significant decision. Slightly above one fifth or 23.3% of FIs, 33.3% of NFIs and 25.6% of other categories cited that while some risk analysis is done, the results are not always recorded. Those who stated that risk analysis is undocumented and informal were 16.7% of the FIs, 22.9% of the NFIs and 23.1% from other categories. One third or 29.2% of the NFIs were not even eligible to answer the question and 51.3% were from other categories of firms.

The results indicate that documentation of risk analysis outcomes is significant in financial institutions and relatively very low in other non-financial Organisations. This pattern verifies that those financial institutions which have adopted RMI see the need to document it. It is critical to identify and document risk in order to guarantee that every project risk is kept in check, and that countermeasures are tracked and evaluated (Marks, 2020). And the others may mere do so due to regulatory requirements. Many commentators have observed that simply documenting risk assessment to meet regulatory needs is insufficient (McFarland, 2020).

6. The Risk Management Integration in Core Operational Issues and Processes

The integration of risk management in the Organisation core operation processes was one of the factors evaluated for the variable and as shown in Table 4.10. Only those sorts of risks that are controlled by statute are identified, analysed, and managed by 26.7 % of FIs, 33.3 % of NFIs, and 38.5 % of other categories of organisations. While 36.7 % of financial institutions, a quarter (25.0%) of non-financial institutions (NFIs), and 5.1 % of other categories said risks connected with key operational processes are only analysed and handled on a quarterly basis. More than a third or 36.7% of FIs, 12.5% of NFIs and 5.1% of other categories reported that risk management forms an integral part of the core operational processes of the operating activities.

Results show an incremental trend towards the FIs on the full integration of risk management in core processes, but the distribution is not different from other categories. It appears that a significant proportion of FIs also carries out integration to meet the regulatory requirements. This was the case for most FIs such as Bureau de Change, Lenders and Insurance Companies.

This agrees with the case study done by Chance (2021) on Happy Tails where it was observed that risk managers identify risks for many reasons some of which include designing and implementing loss control programs, reviewing contracts, training employees, assuring compliance with certain laws, and perform other duties related to handling risk for the firm. This variation in the triggers of RMI in core operation issues explains the even variation across the firms and industries. But a higher rate in financial institutions is explained by the nature of the tasks involved. Callahan and Soileau (2017) corroborated this, observing that the banking and insurance sectors have long recognised the significance of quantitative analysis of operational data in predicting loan and claim risk in business processes (e.g., granting loans, setting interest rates and premiums). Historically, firms in the financial and insurance industries have invested in systems and technology to detect and quantify risk exposure.

7. RMI in BackOffice Processes – Procurement, Finance, ICT and Legal

The risk management integration in the back-office processes primarily procurement, finance, ICT and legal were found to be as shown in Table 4.11 row values of section 4.3. Risk assessments

Supporting functions are handled informally or after the fact or event by over a third (28.3%) of FIs, nearly half (45.8%) of NFIs, and 38.5 percent of other groups (after events occur). Risks related with back-office procedures are identified, analysed, and managed on Adhoc by 33.3 % of FIs, 12.5 percent of NFIs, and none of the other groups. Furthermore, risk management is an intrinsic element of the operating operations incorporated into back-office procedures for 38.3 % of FIs, 12.5 percent of NFIs, and 7.7 % of other groups.

The results show an even distribution of FI among informal, ad-hoc and integral levels in the integration of RM in back-office processes. While NFIs were clustered around informal and less on Adhoc and integral. This variation in back-office processes across the same industry and inter-industry was explained by Callahan and Soileau (2017) that generally, FIs are classified into three types: custodial agencies, which take and handle deposits and provide loans, contract institutions, which include insurance companies and pension funds, and investment institutions, which include investment banks, underwriters, and brokerage firms. As a result of FI organisations varying from non-financial firms in financial leverage, investment prospects, and external governmental regulation, all of which have ramifications for profitability, risk assessment, and price-setting behavior, there is a variation in RMI in back-office procedures (Armstrong, Guay, Mehran, & Weber, 2016).

8. Risk Management Disclosure and Management Reporting

The risk management disclosure and management reporting were some of the variables to measure the degree of RMI in the respondents' Organisations. Table 4.12 row data show that risk financial and management reporting do not contain metrics. by 28.3 % of FIs, 50.0 % of NFIs, and 41.0 % of other groups. Nearly half (48.3 %) of FIs, 20.8 % of NFIs, and 7.7 percent of other groups reported that their organisation shares risk management information in accordance with the minimal standards. While 23.3% of FIs, and none from both NFIs and other categories reported that risk procedures and risk analysis outcomes are reported in line with ISO31000:2018. One third or 29.2% of the NFIs and more than half (51.3%) of the other categories were not eligible to answer

the question. A total proportion of 72% of FIs was found to be involved in risk management disclosures and reporting in management at least with minimum requirements or up to full risk procedure in line with ISO standard. This was higher than NFI where half of them never covered its financial reporting and one third were not eligible to respond as they did not have an RMI system in their Organisation.

The higher level of disclosure in the financial institutions as compared to other Organisations is explained by the regulatory nature of the FI (Noja, Eleftherios & Irina, 2021). According to the literature, risk management disclosure is often reviewed through yearly accounts and reports by corporate entities, in line with rules and regulations controlling financial reporting, particularly for financial institutions, as well as interest from rivals (Kakanda & Salim 2017; Bao & Datta, 2014; Baimukhamedova, Baimukhamedova, & Luchaninova, 2017).

9. Risk management Interaction with Internal Audit

The ninth variable for measuring the degree of RMI in the Organisations risk management interaction with Internal Audit was as shown in Table 4.13 row values of section 4.3. It was discovered that internal audit and internal control activities have nothing to do with risk management methods. in 31.7 % of FIs, 41.7 % of NFIs, and 35.9 % of other categories. Close to half or 45.0% of FIs, 27.1% of NFIs and 10.3% of the other categories said that risk management experts provide information to internal audits to create a risk-based audit p. Both internal review and corporate control methods (audit plan, report structure, and work scope) are based on risk information, according to one-fifth or 20.0 % of FIs, and none from NFIs or other categories. One third or 29.2% of the NFIs and more than half (51.3%) of the other categories were not eligible to answer the question.

The FIs registered a higher pattern of the link between risk and Audit with a total of 65% of all FIs reporting that either their risk management provide information to audit or entire plan, report structure and scope of control activities are based on risk information. Other Organisations

registered a high proportion in a no link between the two functions. The issue is the link between the two functions is a complicated and advanced one in the stage of risk management integration. Empirically, Weekes-Marshall (2020) based his results on an online survey administered to the Barbados chapter of the Institute of Internal Auditors (IIA), where his paper examined IA involvement in the risk management process (RMP) of several types of companies. His findings revealed that while IA is critical to the RMP, there was a serious need to enhance it by improved risk education, exposure, and training, along with increased support from Audit Committee and Senior Management. This means that if the firm did not have a serious board addressing the risk management issues and without a risk committee, it would be hard to link the two functions. He added that RM and the IAF in developing economies are in a developmental stage with limited exposure and understanding of international risks and best practices. Hence the low record of IA and RM link in the developing countries observed is as highlighted in this survey and other researchers (Iskandar, Jamil, Yatim & Sanusi, 2018).

10. Self-Rating on Risk Management Integration Adequacy in the Organisation

The final aspect involved the self-evaluation of the respondents about how they felt or would judge their Organisation in terms of the adequacy of the risk management integration currently practised. Table 4.14 row values in section 4.3 show results that 10.0% of FIs, 10.4% of NFIs and none of the other categories said that risk management integration in their Organisation is adequate. Close to three quarters (71.7%) of FIs, half or 50.0% of NFIs and 35.9% of the other categories said that risk management integration in their Organisation is inadequate. Almost one fifth or 18.3% of FIs, 39.6% of NFIs and 64.1% of the other categories reported that risk integration in their Organisation is not in place.

The findings revealed that a very low proportion across all types of firms NFI inclusive gave a rating of low-risk management integration adequacy in their Organisation. A total of 90% of FIs, 89.6% of NFI, and 100% of others willingly reported that their Organisations have either an inadequate or nothing in place on RMI.

This inadequacy was confirmed even in developed countries such as Greece by Raounas, Apostolidis, Lefcaditis and Markakis (2021). They observed that the majority of non-financial enterprises in Greece do not have an ERM function and do not include one in their organisational charts. They observed that enterprise risk management is still more theory than practice, even for enterprises that have embraced it thus far, and that enterprise risk management appears to be in its infancy in Greece, with only a few notable and mature organisations pointing the way ahead. This trend is expected to be worse in developing countries due to limited exposure, training and tools to meet international best practices as observed by Iskandar, Jamil, Yatim and Sanusi (2018).

Hypothesis 4

H₀: There is no relationship between a firm's size and the extent of risk management Integration in developing countries.

Using the two variables, the independent variable was the firm size, and the dependent variable was the risk management integration. A cross-tabulation run of chi-square to determine the significance of the relationship between the two-category distribution. Results are as shown in Table 4.15 of the previous section 4.3 and show the significance of the distribution for FIs.

The **P-value is $2.6e^{-13}$ or 0.00000587 ($P < 0.05$)** which rejects that null hypothesis and accepts the null.

Decision: The test proves that the distribution of the associations did not happen by chance and hence there is 95% certainty that the **RMI is related to the size of the organisation in a direct pattern.**

This is consistent with many other results, such as those of Shahzad, Khan, Salahuddin, and Qaim (2020), who stated that the first stage is to recognise the risk; however, the type of risk may be influenced by the kind of company (large, small, manufacturing, and services, Islamic or conventional). They identified size (small or large) has some significant influence in the process of determining the nature of risk in business and this factor has to be recognised.

4.5.7 Research Objective and Question 5

The last research objectives and research questions number five were stated as;

Research Objective 5. To establish if the business organisations in Zambia and other developing countries have formalised risk management structures.

Research Question 5. Are there formalised risk management structures integrated into the business organisations in Zambia and other developing countries?

The objective was measured using the presence of the risk department as a measure of the formalised risk management structure. Refer to Table 4.16 in the section on row values which showed that 61.7% of the financial institutions had formalised risk management structure in form of a unit or department, only 4.2% from non-financial and none from other categories. From the Financial institutions, 38.3% said they do not have a risk department or structure, while 95.8% from NFI had no department and 100% of the other categories had no risk structure in form of a risk department.

It is established that a significant proportion of FIs has formalised risk departments but still a fairly good ratio has no formalised unit. The P-value was less than 0.05 showing that the association of the variables are statistically significant rather than by mere chance and hence it is concluded that financial institutions in developing countries have formalised risk management structures.

This agrees with the current findings on the widespread of formalised risk structures among the financial institutions in developing countries which arise from the need to increase performance and compliance or audit evaluation efficiencies (Tamimi, 2021). It has been asserted that perceived business risk has an impact on organisational via control environment and the standardisation of RM techniques. Another study found that in order to attain improved organisational performance, managers should consider business unpredictability, internal controls, and formalised RM procedures that are compliant with regulatory body norms and aid in performance enhancement (Shahzad, Khan, Salahuddin & Qaim, 2020).

4.6 Summary of the Section

In this chapter, a focus on the explanation of various pertinent issues that defined the tenets of the research process was tackled. The first section covered the factors that were considered to assure the trustworthiness of the data that has been reported. This part demonstrated that there was assurance on the trustworthiness of data acquired using the triangulation process, multiple data checks, and thematic coding description. The section elaborated on the transferability of the research finding and gave an assurance on how the adopted methodology can facilitate the execution of comparison of established patterns with other past, current and future researches under similar study patterns. The section further elaborated on the dependability of the research methodology that allows future researchers to repeat the inquiry on the same subject. The first section concluded with the discussion of the confirmability and it highlighted the researcher's beliefs and assumptions which were placed in the proper position to avoid dilution of findings, the audit trail was provided for checking and all realistic shortcomings have been taken note including the effects of COVID 19 on the interview method as many respondents opted for structured questionnaire rather than phone or face to face interview.

The next section addressed the issues of reliability and validity of data that was used in processing the findings. The section revealed that serious consideration was given to validity where first internal validity was secured to validate the measurement and test itself and external validity ty

that could generalise the findings to the target population since the sample was used. The reliability was addressed in terms of the overall consistency of the research study's measurement instrument, especially with the test-test reliability. The section highlights how the study endeavoured to meet the validity and reliability of the used measuring instruments, it was revealed that a tested questionnaire from research conducted on risk maturity was adopted and tailored to the study.

The results section presented the results in an overall pattern following the systematic order guided by research questions and hypotheses but without detailed discussion. In this section, an overview of demographic information collected was given with frequency tables and bar graphs then the overview discussion of research questions and hypotheses followed. Data points relevant to the associated research question and hypotheses were discussed under themes and presented in tables. The last section focussed on the evaluation of research findings where the meaning to each finding was attached and linked to the literature. The report was presented and organised around study questions that were appraised in perspective of concepts and/or conceptual frameworks (s). Table 4.18 shows a summary of key findings and evaluated theoretical validation related to each finding.

Table 4.18 Summary of results findings and evaluation

	Variables	Findings	Parameters	Conclusion	Literature linkage/ harmony
Objective 1: To ascertain if there is a proportion of resources in the budget allocated towards the management of risks by business organisations in developing countries.	Risk expenditure on budget	Significant	> 50% of ratio Observed statistic 3 Expected statistic 2.73	The proportion allocated towards management of risks by financial institutions (FI) in developing countries	Abbas, Haider, Zainab, Hassan, & Fazal (2018) Tursoy (2018)
	Variables	Findings	Parameters	Conclusion	Literature linkage and harmony
Research Objective 2. To establish the factors that strongly influence the integration of risk management in business organisations in Zambia and other developing countries.	Industry type	Significant	41.5% strong effect, 38.1% very strong	79.6% ratio industry type has a strong effect or very strong influence on RMI in FI	Huang, Liu & Lu, 2019) Vongphachanh & Ibrahim (2020) Wagdi & Tarek (2019).
	Manager's Motive	Significant	52.4% strong effect, 22.4% very strong	74.8% ratio managers' motive has a strong effect or very strong influence on RMI in FI	Jankensgård (2019) Rogers (1975) Smith and Stulz (1985), Stainback & Rogers, 1983; Stanley and Maddux, 1986
	Manager's Attitude	Significant	55.8% strong effect, 17.7% very strong	73.5% ratio managers' attitude has a strong effect or very strong influence on RMI in FI	Sitkin & Pablo (1992) Smith & Stulz (1985) Indrawati (2020) Brigham & Dave (2016) Bo & Sterken (2006)
	Board Insight	Significant	48.3% strong effect, 17.7% very strong	66.0% ratio Board insight has a strong effect or very strong influence on RMI in FI	Harris and Raviv (1996) Ishak and Mohamad Nor (2017) Yatim (2010)

	Internal – External Best fit	Significant	28.6% strong effect, 50.3% very strong	78.9% ratio internal-external fitting has a strong effect or very strong influence on RMI in FI	Mikes and Kaplan (2014) Yang-Ngam, Chankoson & Aodton (2019)
	Firm Size	Significant	54.4% strong effect, 23.1% very strong	77.8% ratio firm size has a strong effect or very strong influence on RMI in FI	Alashwal, Abdul-Rahman & Asef (2017) Amran, Bin & Hassan (2009) Ghozali & Chariri (2007) Larasati & Asrori (2020)
	Organisation Risk Structure	Significant for FI	43.5% strong effect 10.2% very strong	53.7% ratio strong or very strong in structure while general weaker link but high proportion on RMI in FI,	Silva & Fernandes (2019) Girangwa, Rono & Mose (2020) Tamimi (2021)
	Risk Frameworks	Significant	54.4% strong effect 8.8% very strong	63.2% ratio strong or very strong effect of a framework on RMI in FI,	Abrams, Von Kanel, Muller, Pfitzmann & Ruschka-Taylor, (2007) Mishra, Rolland, Satpathy & Moore (2019) Nawaz, Waqar, Shah, Sajid & Khalid (2019)
	Risk Management Regulations	Significant	55.8% strong effect 19.0% very strong	74.8% ratio strong or very strong effect of Risk Management Regulations on RMI in FI,	Abrams et al. (2007) Borraz et al, (2020)
	Risk Management Tools	Significant	56.5% strong effect 10.2% very strong	66.7% ratio strong or very strong effect of Risk Management Tools on RMI in FI,	Khodadadyan, Mythen, Assa & Bishop (2018) Rosenberg & Schuermann (2006) Tarek & Kokh (2020) Walls (1994)
	Risk Management Resources	Significant	61.2% strong effect 17.7% very strong	78.9% ratio strong or very strong effect of Risk Management Resources on RMI in FI,	Bashir (2020) Johnson, Scholes & Whittington, (2005)

					Mu, Cheng, Chohr & Peng (2014)
	Environmental Changes and Threats	Significant	34.7% strong effect 42.9% very strong	77.6% ratio strong or very strong effect of Environmental Changes and Threats on RMI in FI,	Huff, Floyd, Sherman & Terjesen (2009) Kulkarni, (2017) Morris (2019) Sae-Lim (2019)
	Variables	Findings	Parameters	Conclusion	Literature linkage and harmony
Objective 3. To determine whether business organisations have internal risk frameworks that comply with international risk guidelines in Zambia and other developing countries.	Risk Management Frameworks and Tools	Significant	Column total of FI = 100% on advanced Row totals of Heatmaps and advanced = 71.6% for FI	It was established that only financial institutions had advanced risk management tools in place where risk assessment results are documented in the form of business key performance indicators such as; Value@Risk, CashFlows@Risk, Earnings@Risk, RAROC, KPI@Risk, and Schedule@Risk)	Abrams et al. (2007) Andronache (2019) Chen, Chuang, Huang & Shih, (2020). Nawaz et al. (2019);
	Variables	Findings	Parameters	Conclusion	Literature linkage and harmony
Objective 4: To determine the extent of risk management integration across different firms and industries in developing countries.	Risk Management Integration (RMI) In Planning and Budgeting	Significant for FI and Weak for NFI and Others	31.7% FI, 0% others full risk integration	Only a significant proportion of financial institutions are engaged in ensuring that RMI is fully embedded in the planning and budgeting processes and non from other categories indicated this level of risk integration.	Cantoni, Favari & Pagnone (2019). Haney, Church & Cockerill (2013)
	Risk Analysis effect on Objectives	Significant for both FI and NFI and Others	75% of FI 67% NFI	A minimum of 75% of FI is either risk outcomes directly affecting revision of goals and objectives before or after and two-third of NFI and others.	Taghipour, Shabrang, Habibi, & Shamami (2020)
	RMI In Decision Making Process	Significant for FI and Weak for NFI and Others	65.0% of the FIs, 16.7% of NFIs and 10.3% of others had their significant decisions made by	The results have indicated that FIs are highly involved in integrating risk management in their decision-making process over two-third for most of the	Andronache, 2019; Nawaz et al., 2019; Abrams et al., 2007; Chen, Chuang, Huang & Shih, (2020)

			management after conducting thorough risk analysis	decisions and one third only for those signs.	
	Board Meeting Risk Management Discussions	Significant for FI and fair for NFI and Others	76.7% of the FIs, 33.3% of NFIs and 20.5% risk issues are presented to the Board in a systematic, consistent and broad manner	Financial institutions have a higher proportion of board engagement and dedicated discussions on risk management. Other Organisations also registered a relatively high proportion of agendas for risk management in board meetings. This revealed that even if Organisations may not have risk departments or deliberate programmes they still discuss risk matters in board meetings	Aebi, Sabato, & Schmid (2012) Ashby, Bryce & Ring (2018)
	Documentation of Risk Analysis Outcomes	Significant for FI and Weak for NFI and Others	60.0% of the FIs, 14.6% of the NFIs 0.0% from others reported that outcomes of risk analysis are documented	Documentation of risk analysis outcomes is significant in financial institutions and relatively very low in other non-financial Organisations.	Marks (2020). McFarland (2020).
	The Risk Management Integration in Core Operational Processes	Significant for FI and Weak for NFI and Others	36.7% of the FIs, 12.5% of NFIs and 5.1% of others - reported that risk management forms an integral part of the core operational processes of the operating activities	It appears that a significant proportion of FIs also carry out integration to meet the regulatory requirements	Callahan and Soileau (2017) Chance (2021)
	RMI in BackOffice Processes – Procurement, Finance, ICT and Legal	Significant for FI and Weak for NFI and Others	38.3% of the FIs, 12.5% of NFIs and 7.7% of other categories reported that risk management is an integral part of the operating activities	The results show an even distribution of FI among informal, ad-hoc and integral levels in the integration of RM in back-office processes. While NFIs were clustered around informal and less on Adhoc and integral.	Callahan & Soileau (2017) Armstrong, Guay, Mehran, & Weber (2016).

			integrated into back-office processes.		
	Risk Management Disclosure and Management Reporting	Significant for FI and Weak for NFI and Others	48.3% of FIs, 20.8% of NFIs and 7.7% of the other in line with the minimum requirements. 23.3% of FIs, and none from both NFIs in line with ISO31000:2018.	A total proportion of 72% of FIs was found to be involved in risk management disclosures and reporting in management at least with minimum requirements or up to full risk procedure in line with ISO standard.	Noja, Eleftherios & Irina (2021) Kakanda & Salim (2017); Bao & Datta (2014); Baimukhamedova, Baimukhamedova, & Luchaninova (2017)
	Risk management Interaction with Internal Audit	Significant for FI	65% of all FIs	The FIs have a higher pattern of the link between risk and Audit - either their risk management provides information to audit or the entire plan, report structure and scope of control activities are based on risk information.	Weekes-Marshall (2020) Iskandar, Jamil, Yatim & Sanusi, (2018)
	Self-Rating on Risk Management Integration Adequacy in the Organisation	Weak for both FI and NFI	10.0% of FIs, 10.4% of NFIs and none of the other categories said that risk management integration in their Organisation is adequate	The findings revealed that a very low proportion across all types of firms NFI inclusive gave a rating of low-risk management integration adequacy in their Organisation	Raounas, Apostolidis, Lefcaditis & Markakis (2021) Iskandar, Jamil, Yatim & Sanusi (2018).
Research Objective 5. To establish if the business organisations in Zambia and other developing countries have formalised risk management structures.	Presence of risk department		61.7% of the FI 4.2% of NFI None from other categories. had formalised risk management structure	A significant proportion of FIs have formalised risk departments but still, a fairly good ratio have no formalised unit	Tamimi (2021) Shahzad, Khan, Salahuddin & Qaim (2020)
Hypothesis 1 Null		Variables	Parameters	Decision	Conclusion
					Literature linkage and harmony

H₀: There is no proportion of resources in the budget allocated towards risk Management by business organisations in Zambia and other developing countries.	Resource Allocated in Budget and Industry Type (Cross Tabulation)	P-value = $1.57e^{-0.7}$ or 0.0014 Phi coefficient (degree of association) was 0.486	Reject Null and Accept Alternative	There is a significant proportion of resources in the budget allocated towards risk Management by financial institutions in developing countries. with 95% certainty	Jankensgård (2019) Matthews, Salvatici & Scoppola (2017)
Hypothesis 2 Null	Variables	Parameters	Decision	Conclusion	Literature linkage and harmony
H₀: The extent to which risk management is integrated into the Organisation is not influenced by the industry where a firm operates in developing countries	Industry type and Risk Management integration (Cross Tabulation)	Hypothesised mean value > 3 T-test (146 df) alpha at 0.05 or 95% level of significance pValue = $7.28e^{-42}$ (numerically = 0.0000)	Reject Null and Accept Alternative hypotheses	It is at 95% certain that the extent to which risk management is integrated into developing countries is significantly influenced by the industry where a firm operates in	Huang, Liu & Lu, (2019) Vongphachanh & Ibrahim (2020) Wagdi & Tarek (2019).
Hypothesis 3- Null	Variables	Parameters	Decision	Conclusion	Literature linkage/harmony
H₀: Business organisations in Zambia and other developing countries do not have internal risk frameworks that comply with international risk management standards.	Risk Management Frameworks and Tools	P value = $1.30e^{-11}$ (=0.0000217) At alpha = 95% Chi square = 67.88 @8df	Reject Null and Accept Alternative hypotheses	It is 95% certain that the financial institutions in developing countries have internal risk frameworks that comply with international RM standards	Abrams et al. (2007) Andronache (2019) Chen, Chuang, Huang & Shih, (2020). Nawaz et al. (2019);
Hypothesis 4 - Null	Variables	Parameters	Decision	Conclusion	Literature linkage harmony
H₀: There is no relationship between a firm's size and the extent of risk management Integration in DCs.	Firm size	The P value is $2.6e^{-13}$ or 0.00000587 (P<0.05)	Rejects that null hypothesis	The distribution of the associations did not happen by chance there	Shahzad, Khan, Salahuddin & Qaim (2020)

			and accepts the null.	is 95% certainty that the RMI is positively associated with the size of the Organisation.	
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CHAPTER 5: IMPLICATIONS, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

There was a targeted aim at resolving the problem that reality has revealed where an increasing trajectory in business risk exposures across various industry types is not followed by a similar response to adopting risk management systems. This hesitation is pronounced even after many efforts to institutionalise risk management procedures has been widespread (Al-Khadash, Jireis & Embassy-Jordan, 2017) in terms of international regulations (Njagi & Njuguna, 2017), emerging of risk professional bodies to give support in capacity building in risk management (Hillson and Murray-Webster, 2017). If risk management were widely adopted like accounting management, there would not be this research problem of the gap between what is exposed and what is risk managed. The gap lies in where businesses do not fully embed risk management in their business activities and strategy (Beasley et. al, 2019; AFI, 2018;; Fadun, 2013a; Hillson, 2006). This research endeavoured to bridge up the gap to establish to what extent business Organisations have integrated risk management in their businesses under the prevailing factors (Fadun, 2013a).

The overall goal of this study was to determine the extent to which diverse organisation types, in comparison to financial organisations, have used risk rules, policies, and frameworks in their regular operations to achieve their goals. The research study used the mixed research approach and case study design. The scope of the research captured different firms from different industries or sectors in Zambia up to a sample size of 147 as a representative target of developing countries. Secondary data was used to capture other countries in the developing countries and developed countries as control groups.

Like any other survey that uses human beings as subjects of research, research ethics were observed and four of these were beneficence, a concept meant to have an activity whose results provide value to the society and with adherence to moral obligation (Kinsinger, 2010). The second ethical consideration was non-maleficence that holds zero tolerance to harm on participants either temporary or long-lasting (Haggerty, 2004). The third identified ethical concern was informed consent, which guarantees that everyone participating in the study voluntarily decides to

participate with a full awareness of the hazards of the research and their involvement in it (Wellcome Trust, 2014). The fourth ethical value observed was fairness which calls for a fair distribution of benefits and harms among either participants involved or whole society targeted rather than merely for commercial, personal gain or academic motive (Benatar, 2002; Benatar & Singer, 2000). The last ethical consideration was confidentiality and anonymity which ensured that the responses and input provided by the research participants were kept confidential by limiting who can access the information as well as hiding the identity details of the respondents.

The limitations which were encountered during the research process included the challenges arising from the COVID 19 pandemic where relevant offices in many organisations were working from home, the face-to-face interview was very difficult. The scope was limited to Zambia to get the general view of the developing countries. Many respondents felt the exercise was an evaluation of their effectiveness which might leak to the market. The issues of cyber security threats made most of the respondents decline the request on emails and phones and even if they agreed, answering questionnaires online made them uncomfortable as these could not be distributed in printed form. The research implications are discussed in the first portion of this chapter. The second section focuses on the recommendation for application and then a section on a recommendation for future research before ending the chapter with the conclusion section.

5.2 Implications

The research results implications are handled by research questions or objectives. Under this section each research question or objective is evaluated in terms of five areas, starting with limitations, response to the problem, conceptual framework, results in expectations and contribution to literature and finally the implications of the results to practice, the existing body of knowledge and doctoral degree.

5.2.1 Research Question/Objective/Hypothesis One

This inquiry was answering the question that is there a proportion of resources in the budget allocated towards risk management by business organisations in developing countries? The variable used was Risk expenditure on budget and this was found to be statistically with a

parameter of greater than 50% in ratio, observed statistic value of 3 compared to the expected statistic of 2.73. This led to a rejection of the null hypothesis and accepted the alternative to concluding that there is a proportion of resources allocated towards the management of risks by business organisations in developing countries. This finding is evaluated with five implications below;

1. Results Interpretation under Limitations

The limitation on the generalisation of results from the smaller sample size to the entire scope of developing countries might carry some form of deviations from the actual reality. The system of human tendency to hide mistakes when reporting performance (Limoncelli, 2020) might also have come in whereby those who need sympathy underestimated the budgeted allocations and those who fear regulatory sanctions exaggerated. However, since major business organisations which were the target were engaged and the sample size was large enough, the results still retained some consistency and can be reckoned for validity.

2. Results Response to Research Problem and Purpose

This research endeavoured to bridge up the gap that establishes the extent to which business Organisations have integrated risk management in their businesses. The results have responded to the problem of the gap that seeks to establish the extent to which risk management has been integrated in terms of resource commitment across the industries towards risk management. It was found that there is a proportion of resources in the budget allocated towards risk management by business organisations in Zambia and other developing countries with 95% certainty and a very low proportion allocated from other types of firms.

3. Results Alignment with Conceptual Framework and Significance

This finding fits well with the proposed variables of the conceptual framework derived from the literature. The risk management resource allocation was one of the independent variables identified to influence the level of risk management integration. The literature supported the need for adequate resource allocation towards risk as this was one of the many challenges faced by firms

in risk management (Fadun & Oye, 2020; Fraser & Simkins, 2016). The significance of this finding is that it has the potential to turn the conceptual framework into theory as part of the factors to consider when establishing risk management.

4. Results Expectations and Contribution to Literature

The results agree with what was projected in the framework and as suggested in the literature and now the contribution to the existing literature is that resource allocation can now be recognised to be one of the significant factors to consider in risk management integration across all industries but as of now, this commitment is only appreciated and being implemented by financial institutions. There was no conflict with the literature as some researchers had a preliminary validation of the importance of resource allocation towards risk management and had appeared in their recommendations such as Fadun and Oye (2020).

5. Results Implications to Practice, existing Body of Research and Doctoral Degree

The results have a profound implication in practice as they help all Organisations to provide a significant value of funding towards risk management to integrate the mitigation programmes on exposures. This means that all firms need to have a budget line reserved for risk management operational and capital expenses. The body of research has been given a window to exploit more on how much value funds allocation towards risk management will have in different contexts and stages of firm maturity. There is a need to research how much value is resource allocation when the firm is at basic risk management or has no risk management programme at all and when it has a robust existing system. The research objective has helped to meet the requirement of the doctoral degree programme as per the procedure.

5.2.2 Research Question/Objective/Hypothesis Two

The inquiry was based on answering the question of what significant factors influence the integration of risk management in business organisations in Zambia and other developing countries. There were twelve variables used in the testing of this objective and question. All the variables tested significance to the hypothesis and led to an established position that many significant factors influence the integration of risk management in an Organisation both financial

and non-financial. The implication of this finding is evaluated in the five areas of assessment below;

1. Results Interpretation under Limitations

The limited responses arising from the targeted number of respondents due to market confidentiality issues, cyber security issues and COVID 19 pandemic challenges might have played a part in undermining the accuracy of the estimations that can be generalised to the entire scope of developed countries. The targeted sample size was 250 and 158 were fully engaged. However, the accuracy of the estimates from the sample was supplemented by the secondary data in developing and developed countries which were in agreement with the finding. This increased the validity of the projections and estimates of the factors that influence the risk management integration.

2. Results Response to Research Problem and Purpose

The results effectively responded to the research problem by bridging the gap that separated the ideal situation from the actual reality by highlighting the probable causes of varying factors affecting the integration of risk management in various types of Organisations. The twelve different factors identified justified the reason why different firms have responded less to the needs of risk management and why others have responded more. Some of the factors revealed are resources, firm size and industry type (Vongphachanh & Ibrahim, 2020; Bashir, 2020; Larasati & Asrori, 2020).

3. Results Alignment with Conceptual Framework and Significance

This finding was in close perfect agreement with the devised variables in the conceptual framework as derived from literature. The twelve factors formed up the pattern of the conceptual framework diagram and they made up the two sides of the figure, one was the independent factors are on the bottom, while the confounding variables are on the left. The literature supported the empirical findings from the primary data collected. These factors were tested significant and can be

replicated or verified to form up a concrete theory in other similar contexts and the same methodology. The significance of these factors was so profound that each of the factors should be considered with all seriousness. For example, the factor of risk management regulations on RMI in FI alone was 74.8% in ratio for a strong or very strong effect. This shows that risk regulations should be set up in all organisations and not in financial institutions alone to execute pressure on compliance (Abrams, Von Kanel, Muller, Pfitzmann & Ruschka-Taylor, 2007; Borraz et al, 2020).

4. Results Expectations and Contribution to Literature

The results agree with what was projected in the framework and as suggested in the literature. The literature has been enhanced by gathering together in a defined form of the factors that need to be considered when an Organisation wishes to integrate risk management. The literature has elaborated enough on the role and importance of risk management in an Organisation as well as individuals (Isa, Mustaffa & Preece, 2020; Pali, 2019) but little has been done on the organised actual factors that determine the extent of risk management (Yembi Renault & Ansary, 2018). This research finding has bundled together with the consolidated list of what firms should focus on to integrate risk to benefit and has added to the literature an organised approach to achieving a robust risk management system by taking into consideration the prominent factors.

5. Results Implications to Practice, existing Body of Research and Doctoral Degree

The results have a deep implication in practice as they help all Organisations to consider the twelve factors directly involved in the integration of risk management to integrate the mitigation programmes on exposures. This means that all firms need to consider their size, check the motive and attitude of their managers implementing the risk management programme and provide resources. There is a need to research how much each factor affects the RMI in the same or different contexts of locations and methodology to validate the findings. The research objective has helped to meet the requirement of the doctoral degree programme as per the procedure.

5.2.3 Research Question/Objective/Hypothesis Three

The major objective focused on the need to determine whether business organisations have internal risk frameworks that comply with international risk guidelines in Zambia and other developing countries. The variable used was Risk Management Frameworks and Tools and this was found to be statistically significant with a parameter having a total of FI = 100% on advanced while row totals of Heat maps and advanced levels combined to 71.6% for FI. As a result, the null hypothesis was rejected, and the alternative hypothesis was accepted, leading to the conclusion that the majority of financial institutions had advanced risk management tools in place, with risk evaluation findings catalogued in the form of business key metrics such as Value at Risk, Cashflows at Risk, Earnings at Risk, RAROC, KPI at Risk, and Schedule at Risk, but the situation was found to be the opposite on the other types of firms where the majority was found not having any substantive risk framework and tools. This finding is further evaluated under five implications below;

1. Results Interpretation under Limitations

On this probe, the major challenge from the respondents was to represent their risk management framework obtained in their Organisation. Some were not sure and even if they had some defined aspects of risk management, failure to classify them made some report on extremes such as there is no framework. While others who are under regulations might have reported the biased position towards a robust one for fear of leaking to regulators. This though was not believed to influence the interpretation of the results so much as the sample size was large enough to define the true picture and this increased the validity.

2. Results Response to Research Problem and Purpose

The results capably responded to the research problem by directly explaining the gap that separated the ideal situation from the actual reality by highlighting the probable extent to which business organisations have integrated risk management in their Organisations. The results determined that majority of financial institutions have advanced or fair levels of risk management integration, unlike the non-financial institutions which were found to be significantly lacking behind. 100% of all the respondents who reported a robust risk management framework with tools such as value at

risk all came from financial institutions and none from other types of Organisations. This was supported by many other scholars (Chen, Chuang, Huang & Shih, 2020; Nawaz et al., 2019) and the findings have answered the question of to what extent and has responded to the research general objective.

3. Results Alignment with Conceptual Framework and Significance

This finding harmonised with the independent variables of the conceptual framework derived from literature. The risk management framework and tools were among the independent variables identified to influence the level of risk management integration. The literature supported the need for risk management tools and framework as a prerequisite in the risk management integration (Abrams et al., 2007; Andronache, 2019). The significance of this outcome provides the basis for turning the conceptual framework into theory if the framework is verified or proved in other contexts.

4. Results Expectations and Contribution to Literature

The results agree with what was projected in the framework and as suggested in the literature and now the contribution to the existing literature is that risk management framework and tools can now be recognised to be among the significant factors to consider in risk management integration across all industries. It has been established and enriched to literature that these factors are highly appreciated and widely implemented by financial institutions more than in other organisations which were considered. There was no conflict with the literature as some researchers had a preliminary validation of the importance of risk management framework towards risk management and had appeared in their recommendations (Chen, Chuang, Huang & Shih, 2020).

5. Results Implications to Practice, existing Body of Research and Doctoral Degree

The results have a significant implication in practice as they help all Organisations to consider the risk management tools and framework as a major ingredient in the integration of risk management for many highly risky environments. Financial institutions which are known to be highly risky (Naser, 2019) were found to be highly integrated with risk frameworks, although there were gaps

that need improvement. It helps other Organisations realise how much they are lagging and see the need to equally follow suit to set up risk management frameworks to cope with emerging risks in the business environment. There is a need to research how much of each factor (risk framework and risk management tools) affects the RMI in the same or different firms and contexts of locations and methodology to validate the findings. The research objective has helped to meet the requirement of the doctoral degree programme as per the procedure.

5.2.4 Research Question/Objective/Hypothesis Four

The research question aimed at answering the question that bridges the gap in terms of to what extent has risk management been integrated across different firms and industries in developing countries? Eleven variables emphatically evaluated this measurement some of which included the levels of risk management integration (RMI) in planning and budget, decision making, back-office processes and risk analysis effects on objectives, among others. It was established that while other institutions were found to be having a weak RMI in most of those areas, financial institutions were found to have a significant level of RMI in all the variables but with differing intensity. The interpretation of the finding is further evaluated under five implications below;

1. Results Interpretation under Limitations

These variables were equally affected by perception or extreme ratings by the respondents. A failure to represent their actual risk management position on the variable led some to merely estimate with some margins of error. Depending on their perceived position on the matter some could play a sympathy by downplaying it while others could play hero by exaggerating it, a tendency of giving biased information even in absence of incentives is normal (Rutebemberwa, Namutundu, Gibson, Labrique, Ali, Pariyo & Hyder, (2019). This limitation was diluted in its impact on the interpretation of the results by the increased sample size which led to the internal validation and consistency.

2. Results Response to Research Problem and Purpose

The results ably responded to the research problem by directly explaining the gap that separated the ideal situation from the actual reality by highlighting the probable extent to which firm type has influenced the levels of risk management integration in the Organisations. The results determined that the extent of risk management integration significantly varies across industries with the financial industry achieving consistent and advanced or to a minimum fair lev of risk management integration, unlike the non-financial institutions which were found to be significantly lacking behind. This was supported by many other researchers for example the RMI in major or core processes (Chance, 2021; Callahan and Soileau, 2017) in back-office processes (Callahan & Soileau, 2017; Armstrong, Guay, Mehran, & Weber, 2016) and risk management disclosure and reporting (Noja, Eleftherios & Irina, 2021; Kakanda & Salim, 2017; Baimukhamedova, Baimukhamedova, & Luchaninova, 2017; Bao & Datta, 2014).

3. Results Alignment with Conceptual Framework and Significance

This finding harmonised with both the independent and the confounding variables of the conceptual framework derived from literature. All the variables were established to have a significant influence on the level of risk management integration across all types of Organisations. The literature supported the variables significance and factors like firm size were a key determinant of the level of risk management integration (Shahzad, Khan, Salahuddin & Qaim, 2020). The relevance of this result offers the foundation for subsequent researchers in various circumstances to validate the conceptual framework in this research into an established theory.

4. Results Expectations and Contribution to Literature

The results did not conflict with the well-researched projections, and they all agreed with what was projected in the conceptual framework and they have significantly added value or significant contribution to existing literature. The twelve variables suggested to be key influences can now be recognised to be among the significant factors to consider in risk management integration across all industries. It has been established and enriched to literature that the financial sector has responded with much speed to RMI, and the cited factors are highly appreciated and widely implemented by financial institutions more than in other Organisations which were considered.

There was no conflict with the literature as some researchers had a preliminary validation on most of the variables such as size (Shahzad, Khan, Salahuddin & Qaim, 2020), Board risk issues discussion (Ashby, Bryce & Ring, 2018; Aebi, Sabato, & Schmid, 2012;) and risk documentation (Marks 2020; McFarland, 2020). These were evaluated in isolation, but this finding has reorganised them in the proper interest of the Organisational sector-wise.

5. Results Implications to Practice, existing Body of Research and Doctoral Degree

The results have a significant implication in practice as they help all Organisations to consider the type of industry they are in and the levels of risk management adoption levels and then evaluate the factors needed to consider enhancing their RMI. As Organisations realise how much they are lagging while risk exposures are on the increase, they will see the need to keep pace with those firms with robust management frameworks to cope with emerging risks in the business environment. There is a need to research how much of each of the twelve factors affects the RMI in different firm contexts of locations. The research objective has helped to meet the requirement of the doctoral degree programme as per the procedure.

5.2.5 Research Interrogation/Objective/Hypothesis Five

The research question aimed at answering an objective-based inquiry thus; are there formalised risk management structures integrated into the business organisations in Zambia and other developing countries? The used variable was asking for the presence of a risk department in the organisation. It was established that the majority of financial institutions had a formalised risk management structure while other institutions were found to be having a relatively undefined system or structure in their management of risk. The interpretation of the finding is further evaluated under five implications below;

1. Results Interpretation under Limitations

The limited responses from the respondents could have undermined the accuracy of the estimations in the estimation of risk management structures across financial institutions and other organisations engaged and the validity for generalisation to the entire scope of developed countries

could be tempered. However, the validity and accuracy of the interpretation from the sample were reinforced by the secondary data in developing and developed countries which were in agreement with the finding.

2. Results Response to Research Problem and Purpose

The result directly responded to the research problem by partially mending the gap in the presence of risk structures to determine the levels of risk management integration in the Organisations. The results determined that financial institutions have a wider extent of risk management integration by securing departments and structures in their organogram with a significant proportion. While the non-financial institutions which were found to be significantly lacking behind had some issues in prioritising the inclusion of deliberate structure of risk programme. This was supported by other researchers who in isolation considered the matter (Tamimi, 2021; Shahzad, Khan, Salahuddin & Qaim, 2020).

3. Results Alignment with Conceptual Framework and Significance

This finding was in line with the confounding variable of the conceptual framework derived from literature. The risk management structure was among the confounding variables identified to influence the level of risk management integration. The literature supported the need for a risk management structure as a hygienic factor in risk management integration (Shahzad et al., 2020). The significance of this outcome provides the basis for translating the conceptual framework into theory once it is verified or proved in other contexts by other researchers.

4. Results Expectations and Contribution to Literature

The results served no conflict with the expected results as projected in the framework and as suggested in the literature. The major contribution to the existing literature is that risk management structure can now be recognised to be among the significant factors to consider in risk management integration across all industries. It has been established and enriched to literature that a risk management structure needs to be highly appreciated and widely implemented by financial institutions more than in other Organisations which were considered. Several researchers had a

preliminary validation of the importance of risk management structure towards risk management and have been recommendations (Tamimi, 2021).

5. Results Implications to Practice, existing Body of Research and Doctoral Degree

The results have a significant implication in practice as they help all Organisations to consider the risk management structure as a major ingredient in the integration of risk management for many highly risky environments. The pattern in risky financial institutions was found to be highly integrated with risk departments or units, although there were gaps that need improvement within the financial sector. The result has helped other Organisations realise the gap and appreciate the need to equally match up with the trend to set up risk management units to cope with emerging risks in the business environment. There is a need to conduct further research on how much risk management structure affects the RMI in the same or different firms and contexts of locations and methodology to validate the findings. The research objective has helped to meet the requirement of the doctoral degree programme as per the procedure.

5.3 Recommendations for Application

The ultimate reason for the research was to establish the cause and extent of risk management integration. The results have revealed pertinent issues about the absorption of risk management across different types of firms and this section offers valuable recommendations that firms, policymakers and regulators should consider enhancing the risk management integration.

1. Set Up Proactive Risk Management System Beyond Industry Or Systematic Risk Profile

The findings have shown that some industries have not integrated risk management due to perceived low systematic risk. However, the degree of exposure to business losses is ever-changing. It is recommended that all firms in all types of industries should have a futuristic approach to risk management rather than a focus on the current or past risk profile prevailing in their industry. This industry type was affecting the RMI as supported by literature where those industries such as financial Organisations perceived to have a higher inherent risk than others, and this will have a natural cause for implementing more or less of the risk management systems. Firms

in the industry with low perceived inherent risk (industry or market risk) are only restricted to management of unsystematic risks and less of systematic risk which cannot be deleted by diversification (Ghalibaf & Salmalian, 2019; Chukwunulu et al., 2019; Wagdi & Tarek, 2019). But experience with the COVID 19 impact has proved that circumstances can change so sudden, and a once secure business can turn into a staggering venture. Hence all firms should go beyond unsystematic risk and systematic risk of the day but the probable future loss mitigations measures through RMI.

2. Increase Corporate Governance Levels and Know the Operational Managers' Interest

The manager's motive was found to be carrying a significant influence on the extent to which risk management is integrated into the Organisation. Due to the agency information problem, the agents or managers implementing strategies and day to day activities tend to serve their interests and behavioural biases that conflict with the best interests of the principal owners or the shareholders (Jankensgård, 2019; Hermeindito, 2020). Many Organisations were found to have underplayed the role of risk management and one factor was due to the motive of the managers who are to steer an Organisation towards extensive integration of risk management. The willing board that has an oversight is not well informed to take up a correct approach. Hence it is strongly recommended that corporate governance levels should be increased and the board members who wish to adopt ERM should take much effort to know managers motives and identify certain behaviours and incentives appearing to be of influence to risk management practices in the firm (Lynch, 2008). This was also noticed in Nigeria, where Fadun (2017) urged that bank boards and shareholders exert pressure on Bank management must operate in the best interests of the bank and adhere to strong corporate governance standards.

3. Train Operational Managers On The Risk And Returns For The Organisation

The findings indicated that managers attitude strongly influence the levels of RMI in an Organisation even if the implementing managers are not focusing on serving their selfish interests but when they are acting in the best interest of the principal owners or shareholders. In fear of taking the risks to preserve capital loss (risk-averse) or too much risk-taking (risk seeker) to

maximise gain or the indifferent attitude towards risk-taking (risk-neutral) (Iswadi, Saputra, Haykal & Albra, 2019; Holden, Hall & Mailroom, 2010; Guiso & Paiella, 2004) results in Organisations missing out on the optimum RMI uptake. It is therefore strongly recommended that managers should be trained on the link between risk and return so that they can objectively evaluate each investment as well as exposures with technical knowledge. They should be able to evaluate decisions so that they know when to take a risk and when to avoid it. The finance and other decision-making executives of the Organisations should avoid working under mere instinct but should evaluate the basic principles of risk and return to fairly evaluate RMI levels.

4. Board Meetings Should have Risk Management Issues for Discussion On The Agenda

The findings revealed that the degree to which the board is informed on risk management matters affects the extent to which RMI is supported and implemented. The Organisation board has the responsibility of risk management oversight and hence it is recommended that board meetings are in subcommittees, or the full board must ensure that the agenda reserves the line for discussing risk management issues of the Organisation. Once they are given the right information in the right quantity, they can determine the extent to which risk management can be implemented in an Organisation. Hubbard (2020) the visibility of risk management to the Board of directors is important as this helps them to know and approve the risk tolerance and appetite levels applicable to the Organisation. They can only support this risk management when they are well enlightened.

5. Responsive Contingency Component in Risk Management for Internal/External Best fit

The necessity for organisations to balance internal and external needs was discovered to have a significant association with RMI. This can only be done when an Organisation has a conscious integration system of risk management in the Organisation that is responsive. This notion is strongly supported by the contingency theory which carries a core assumption that Organisations are open systems exposed to external and internal interacting factors (Morris, 2019). It is strongly recommended that Organisations should intensify on a reactive risk system that responds to an ever-changing environment from one period of time to the other. Failure to have this contingent system in the framework will expose the Organisations to mismatch. The Organisations need to

embrace the notion that as an open system, an Organisations will be exposed to each situation that calls for its way of managing the risks and one method previously used to suit the internal or external dictate will not prove to be the only best way of mitigating the presented risks. As a result, as emphasised by other researchers in various settings such as Kulkarni (2017), an organisation must develop a strong match between internal systems and the external world.

6. Small Firms to Adopt the Risk Management Framework Applicable to Large Firms

Many organisations were found to be limited in integrating risk management because of the small firm size factor. Over 70 %of the respondents engaged in this study reported that the size of the Organisation has strongly affected their level of RMI. Theoretically, it is explained that the bigger the size of the firm, the higher the systematic risk exposure and researchers such as Benlemlih, Shaukat, Qiu and Trojanowski (2018) demonstrated that firm's size is positively related to systematic risk and negatively related to total and idiosyncratic risks. It is recommended that small firms adopt the identical risk framework applicable to a large firm, especially where no costs are implied in the implementation. This is true even if certain report fields may have a nil return as long as no unnecessary cost is incurred in doing so. This will be similar to the accounting systems which all companies adhere to and on a periodical basis, they compile and report

7. Non-Financial Firms Should Include a Risk Management Structure in Their Organisational chart

It was established that many organisations, save for financial institutions, are lagging in the RMI due to lack of a risk structure in their organisation organogram. Most insurance companies and bureau de change were found to have no risk department. The role of managing risk is mainly done with either finance or internal audit functions who have a different traditional mandate in an Organisation. It is strongly recommended that Organisations whether they are in high risk or low risk perceived sectors should have a risk management structure. The filled-in risk department will be active to design and implementing the ERM (Laisasikorn & Rompho, 2019) and will compel the reporting of sufficient information to the board. Other experts have cited that the risk structure influences the performance of the Organisation (Girangwa, Rono, & Mose, 2020).

8. Both Financial and Non-Financial Firms to Devise a Risk Management Framework

It is strongly recommended that all firms have in place a well-devised risk framework with a set of elements to manage the firm-specific (unsystematic risk) risks, industry or market based (systematic risks) risks and as proved by sudden changes caused by the COVID pandemic, to manage other upcoming risks during the operation. Many benefits come with such a framework and as reported by Lai and Samad (2010), managing unsystematic risk through ERM framework can contribute positively to various forms of business performance to create enterprise value and they recommended that firms should not hesitate to commit and invest their time and resources in instituting an effective formal risk framework within their running structure.

9. All Regulators To Include Risk Management Practice As Compliance Requirement

The findings have revealed that many Organisations found to have a high-risk management integration system were under strict regulation and did so to meet compliance dictates. It is therefore recommended that all regulators incorporate risk management systems on their regulatory checklist so that companies should respond to the risk management compliance requirement. This is supported by the findings established in the developed countries by Borraz et al (2020) who found important differences in the conception and targeting of risk-based inspections by regulators, these caused starkly different implications in the European Union region. This firmly attributed the variation in the implementation of risk-based inspection to the ways EU regulatory style.

10. Both Financial and Non-Financial Firms to Adopt Standard Risk Management Tools

Lack of risk management tools in many companies was found to be the major cause for the limited RMI in the Organisations. It is strongly recommended that all Organisations need to treat risk management tools in the same way accountants in all Organisations take the accounting systems so seriously. These risk management tools create systems or processes that detect, measure, assess and report the various risks that affect an Organisation. Some good examples of risk management tools include those which are capable of measuring the market value at risk (VaR), usage of stress

testing results, the usage of credit risk mitigation methods and also the operational risk management tools (Ostrom & Wilhelmsen, 2019; Boubaker, Buchanan & Nguyen, 2016). Managers need to be trained and have the best knowledge of these tools to carry out significant risk management practice that shields the company from business losses they are exposed to.

11. All Business Organisations to Reserve Resources for Risk Management a Budget Line

It is recommended that Organisations allocate sufficient resources in their budget to facilitate the implementation of risk management tools, frameworks and a full risk management implementation strategy. It should be noted that all mitigation measures will require resources to be in place as lack of funding was reckoned to be one of the most pressing challenges of implementing risk management in a typical Organisation (Fraser & Simkins, 2016). Organisations should attach high priority in resource allocation towards RMI to overcome the challenges that make it difficult for others to justify the expense on risk management issues. The Organisation's measure of support of RMI is how loaded the budget line carrying resources for implementing risk management is.

12. All Businesses to Have Risk Model that Responds to Environmental changes and Threats

It is recommended that business Organisations should have a risk framework that adjusts to the changes in the environment along with its emerging threats and opportunities presented. The volatility of the market environment where an Organisation operates is matched if a serious RMI programme is in place. Experts have supplemented this point by stating that a natural cause will prompt an Organisation to adjust the risk management framework, change the manager's motive or attitude and redefine the risk management integration levels (Morris, 2019; Kulkarni, 2017). All business Organisations in developing countries should have an existing RMI capable of responding to threats and changes in the environment which is inevitable if they are to survive in the industry. Table 5.1 shows a summary of recommendations relevant to the organisations in Zambia and developing countries.

Table 5.1 Summary of Recommendations on RMI in Developing Countries

Factor/Driver	Cause/Effect/Extent of RMI	Recommendation	Other Supporting Findings	Context
Industry Type	High RMI in high systematic risk industries such as aeroplane, banking, finance, mining, oil refinery and IT and low in other non-financial	Set up proactive risk management system beyond industry or systematic risk profile	Chukwunulu et al., (2019); Wagdi, O., & Tarek, Y. (2019).	United States, Germany, South Korea, Nigeria and Egypt
Managers' motives	Less than optimum RMI due to conflict of interest	Increase corporate governance levels and know the operational managers' interest	Hermeindito, H. H. (2020).	Indonesia
Managers attitudes	Risk-averse, Risk seeking and risk Neutral affect optimal RMI	Train operational managers on the risk and returns for the Organisation	Fadun (2017), Iswadi, Saputra, Haykal & Albra (2019), Guiso & Paiella (2004)	Italy, Nigeria
Board insight	Agency Problem causing less than optimal RMI in Organisations	Board meetings should have risk management issues for discussion on the agenda	Fadun (2017) Hubbard (2020)	Nigeria
Best Fit Internal External Events	Rigid response to external events and undefined RMI contingency affects the RMI	Responsive contingency component in risk management for internal/external best fit	Morris, D. W. (2019).	Ontario, Canada
Firm size	Smaller firms omit RMI in strategy	Small firms to adopt the risk management framework applicable to large firms	Bellemare, M. F., Masaki, T., & Pepinsky, T. B. (2017).	Theory
Risk Structure	Omission of Risk Department in the organogram	Risk management structure for non-financial organisations	Laisaikorn, K., & Rompho, N. (2019). Girangwa, K. G., Rono, L., & Mose, J. (2020).	Thailand Kenya
Risk Framework	Lack of Basic RM Framework	Both financial and non-financial firms to devise a risk management framework	Lai and Samad (2010),	Malaysia
Regulators Risk Management	Absence of RMI on regulators checklist	All regulators to put risk management practice as a compliance requirement	Borraz et al (2020)	EU
Risk Tools	Lack of Basic RM Tools	Both financial and non-financial firms to adopt standard risk management tools	Boubaker, S., Buchanan, B., & Nguyen, D. K. (2016).	Various Context
Risk Management Resource Allocation	Limited or complete lack of funding on RMI	All business Organisations to reserve resources for risk management a budget line	Fraser & Simkins (2016)	Canada
Environmental changes/threats	Rigid and/or undefined RMI model to respond to threats and opportunities	All businesses to have a risk model that responds to environmental changes and threats	Morris (2019)	Ontario, Canada

5.4 Recommendations for Future Research

The research findings have given way to a lot of risk management issues in both financial and non-financial Organisations in terms of extent and cause. The factors tuning to a value of twelve have been thoroughly evaluated to see how they affect the RMI in these Organisations. However, these factors were generalised in a context limited to Zambia and the research was conducted under stressful conditions which changed the old normal way of doing things due to the COVID 19 pandemic. These and other limiting factors give an added reason to suggest future research in many areas which are highlighted in this section to both validate and enhance the scope of these findings. This section thus is an escalation of the pertinent results issues about the absorption of risk management across different types of firms. It is required that would be future researchers fill up the gaps left in this research and lengthen the list of valuable recommendations to firms, policymakers and regulators to consider enhancing the risk management integration in various contexts. The top ten (10) recommendations for future research are dealt with one by one under the research topic heading.

1. Research on The Value or Effectiveness of Proactive Risk Management System Beyond Perceived Systematic or Industry Risk

There is a need for researchers to establish the possibility and the value of an Organisation adopting the full RMI without being limited by the perceived industry risk currently prevailing in the industry. This research finding revealed that firms in some industries have not integrated risk management due to perceived low systematic risk and yet the time the exposure of their business losses is ever-changing. Researchers should help qualify the value of RMI fully adopted across all firms and in all types of industries by showing the possibility and value associated with this. A few pockets of industry-based risk management value assessment have been researched and tested in some areas of industry and most of these have turned out to be positive. For example, Vij (2019) examined the prospects for enterprise risk management in the hotel sector, as well as how ERM is being balanced with innovation and boards' involvement in risk supervision. The findings

demonstrated that the increasing complexity company required hospitality managers to have higher risk management skill levels than they had ever had previously. In the transport industry, Ekwall and Lantz (2019) explored cargo theft risk management for different product types at different locations. The findings confirmed that risk in transport is wider than known covering security connected to freight transport, larceny risk, and needs of commodities owners. Other industries that confirmed that risk is wider than perceived are those in construction (Fadun & Saka, 2018), Medical (Musonda, Mwanaumo & Thwala, 2018) and the banking industry (Tursoy, 2018)

2. Research on How to Reduce Principal - Agency Problem for Improved Corporate Governance Levels in Developing Countries.

There is a need for more research on how to improve on the information flow from the managers to the board in developing countries and establish how the board can detect the interests and behavioural biases that conflict with the best interests of the principal owners or the shareholders. The observed underplaying of risk management as a result of the motive of the managers resulting in limited or sub-optimal integration of risk management can be mitigated by finding ways of bridging the gap between agents and principal owners. Hence it is strongly recommended that research on how to improve corporate governance levels in the context of developing countries should be conducted. This will serve the purpose of helping the board members to know managers motives and identify certain behaviours and incentives appearing to be of influence on risk management practices. In Nigeria, Fadun (2017) suggested recommendations on how to improve this agency problems in the banks' boards and shareholders so that they have a basis for putting pressure on bank management must behave in their best interests and excellent corporate governance procedures. This recommendation will be effectively practised once the board knows how to detect such behaviours in managers.

3. Research to Investigate the Impact of Managers' Risk Management Training on the RMI of an Organisation in Developing Countries.

More study is needed on the influence of technical risk management expertise on risk management integration in organisations so that organisations, policymakers, and regulators can understand the

link. If managers holding risk management positions only have general business qualifications, then their natural inclination or attitude of risk fear, risk-taking or risk neutral (Iswadi, Saputra, Haykal, & Albra, 2019; Holden, Hall & Mailroom, 2010) will be retained and will influence their judgement on risk decision making. The research needs to establish the correlation and the strength it has between managers who have acquired technical knowledge on risk tools, frameworks and models on the decision-making process and RMI. The research will answer questions such as will a risk-averse manager still fear risk even after acquiring the risk and return knowledge? Will the managers still take risk management casually after knowing all the risk management tools and frameworks in place? This will help to theorise the factors that manage or dilute the attitudes towards risk management in Organisations.

4. Research on Nature, Depth and Frequency of Risk Management Issues In Board Meetings Agenda

The research to establish the nature, details and frequency of the risk management issues discussed on the board agenda and how they affect the RMI is very much needed. The recommendations arising from such probes helps the Organisations, policymakers and regulators to see the importance of such meeting discussions in the outworking of the RMI for an Organisation across all types of firms. The research findings in this study revealed that the degree to which the board is informed on risk management matters affects the extent to which RMI is supported and implemented. According to Hubbard (2020), risk management must be visible to the Board of Directors in order for the risk profile of the organisation to be understood and be in a good position to approve or refute the Organisation risk tolerance, risk capacity and appetite levels applicable to the Organisation. The research will establish the correlation between the RMI, and the depth of risk issues discussed on the agenda. The recommendations arising from this research will help Organisations to adopt the optimum levels of risk management discussions in terms of depth and frequency.

5. Assess the Possibility of Elastic Risk Management Framework for Contingency in DCs

Research on the viability of or the availability of the flexible risk model that adjusts to the internal and external exposures of the Organisation is needed. The findings showed that respondents indicated a strong relationship between the Organisations need to match the internal and external demands and RMI. This can only be done when an Organisation has a conscious integration system of risk management in the Organisation that is responsive. Recommendations on how an Organisation can develop such a framework is greatly needed so that other Organisation lagging can adopt. Those Organisations already have such in place can see the gaps or levels of adequacy that need to be assessed. Morris (2019) strongly supported this notion using the contingency theory that recognises Organisations as an open system exposed to external and internal interacting factors. But Organisations need to know how to come up with such a risk system that will enhance ERM integration in developing countries including Zambia. Kulkarni (2017) recommended the best fit between internal systems and external environment but never highlighted how such a fit has to be devised and how far has been implemented.

6. Investigation Into the Benefits And Challenges of RM in Small Firms in DCs

Much research has been conducted on risk management in small and micro firms in developed countries such as Zhang (2021) in China, Hiebl, Duller and Neubauer (2019) in Austria and Germany and De Araujo Lima, Crema and Verbano (2020) in European Economies, among others. But much research has to be conducted in the context of developing countries. The findings in the Zambian context indicated over 70 % of the respondents engaged in this study reported that the size of the Organisation strongly affected their level of RMI. The small firm size factor was found to be limited in integrating risk management. For small firms to adopt the identical risk framework applicable to a large firm relative to the costs is implied in the implementation, there is a need to establish and publish the valuable results of RMI in small firms to act as a catalyst for robust practice amidst the challenges peculiar to developing countries. It is widely known of course that the bigger the size of the firm, the higher the systematic risk exposure and the lower the idiosyncratic risks (Benlemlih, Shaukat, Qiu & Trojanowski, 2018).

7. To Investigate the Reasons for Lower Number of Organisations With Risk Departments

There is a need to establish the major causes for the lower response to risk unit creation in most non-financial institutions in developing countries. The findings and recommendations will reveal the root cause for lower than expected RMI in developing countries. The findings indicated that many Organisations were lagging in the RMI due to lack of a risk structure in their Organisation organogram. Most insurance companies and bureau de change were found to have no risk department, even in events where risk was recognised to be vital. Many Insurance companies and other Organisations in Zambia reserved the risk management to be done by either finance or internal audit functions who have a different traditional mandate in an Organisation. For example, Laisasikorn and Rompho (2019) observed that a filled-in risk department will activate the need to design and implement the ERM, which will, in turn, compel the reporting of sufficient information to the board for well-informed oversight. While Girangwa, Rono and Mose (2020) linked the risk structure to the positive performance of the organisation. But despite all these benefits, many Organisations omit Risk Department in their organisation and research has to be conducted on why this is so in many developing countries.

8. To Investigate the Reasons for Lower Number of Organisations With RM Framework

Many Organisations were found to be risk-conscious, but they hesitated to adopt the readily available risk management frameworks provided in Zambia and many other developing countries. This contributes to the low RMI levels. Researchers need to delve into the issue and establish why firms omit RM frameworks. Many reports have been circulated to highlight the importance of these frameworks. For example, Lai and Samad (2010) indicated that managing unsystematic risk through the ERM framework contributes positively to various forms of business performance and these help many Organisations to create enterprise value. It was recommended that firms should not hesitate to commit and invest their time and resources in instituting an effective formal risk framework within their running structure.

9. To Assess if Regulatory Bodies Include Risk Management Practice As A Requirement For Their Regulated Organisations

The role of a regulator in enforcing RMI is very significant in Zambia and so are other developing countries. There is a need for the ardent researchers to verify if all regulators have included the risk management system on the checklist for regulating the Organisations. In this research in Zambia, it was found that many Organisations with a higher risk management integration system were those under strict regulators who prioritised risk management as a major issue for compliance on the checklist and Organisations got compelled to meet compliance needs. But it is not known with certainty if all other regulators have included risk or have attached the same priority. This needs to be established in developing countries and the findings, as well as recommendations, alert all regulators with the need to help their regulated organisations to implement RMI. In developed countries, some publications show that there are variations in the way regulators inspect their regulated Organisations. For example, Borraz et al (2020) identified notable differences in the notion and targeting of risk inspections by regulators and this culminated into plainly different implications in the European region. Variations in the EU regulatory style were responsible for the variation in the implementation of risk-based inspection.

10. Replicate And Validate The Established Extent Of Risk Management Integration In Zambia and Other Developing Countries.

There is a need to replicate this research subject in other developing countries as well as in this same country Zambia at this or other times and context. This research has found that there is relatively significant RMI in most financial Organisations (especially banks, but with room to improve) than non-financial Organisations while the risk of exposure is ever increasing and becoming complicated. These findings need to be replicated and see if the same results are obtained either here in Zambia or other nations that have comparable attributes.

5.5 Conclusions

The research has delivered the results to meet the objectives, answered questions and responded to the suppositions of the hypotheses. The objectives and the questions all were linked to the purpose of establishing the extent to which financial Organisations and by implication and other Organisations have integrated risk management. The findings of the five study questions and goals, as well as their ramifications, are discussed in the first section of the conclusion.

1. *There is a portion of resources on the budget towards risk management integration by financial institutions and a fairly good proportion by non-financial institutions even in absence of risk management structure in Zambia and other developing countries.*

The first objective was to ascertain if there is a proportion of resources in the budget allocated towards the management of risks by financial institutions in developing countries. The findings lead to the conclusion that there is a proportion of resources allocated towards the management of risks by financial institutions (FI) in developing countries. The findings further revealed that other organisations aside from the FIs allocate some appreciable level of resources towards managing risk. This was shown in the pattern where the number of Organisations that indicated resource allocation on risk management or some form of it was more than those who have a formal risk structure. It is thus concluded that even if many Organisations do not have a deliberate unit dedicated to managing risk, but they manage it informally and they spend funds to mitigate the probable risk. On the practical application, the results led to the conclusion that it is of much help for all Organisations to provide a significant value of funding towards risk management to integrate the mitigation programmes on exposures. This means that all firms need to have a budget line reserved for risk management operational and capital expenses.

The limitation on the generalisation of results from the smaller sample size to the entire scope of developing countries might carry some form of deviations from the actual reality. The conclusion on this objective had to put in context the limitations of the human tendency to hide mistakes when reporting failed performance and exaggerate when presenting the success (Limoncelli, 2020). Others still needed sympathy and could have underestimated the budgeted allocations and those who could be mindful of regulatory sanctions overestimated the position to show compliance. The

conclusion is validated under this limitation as major financial institutions were fully engaged and the sample size was large enough and hence the results still retained significant consistency and was sufficiently reckoned for validity in the conclusion.

The first hypothesis was worked at 4 degrees of freedom (df) and yielded a P-value of $1.57e-0.7$ (scientific notation equal to 0.0014) which was far less than the acceptance point ($P < 0.05$). The conclusion on the supposition gives us a directive to reject the null hypothesis and to accept the alternative hypothesis that the figures are not out of mere chance and hence there is a significant proportion of resources in the budget allocated towards risk management by business organisations in Zambia and other developing countries. The Phi coefficient (degree of association) of 0.486 indicated a moderate to strong association range between variables. From these findings, it was recommended that organisations should seriously allocate sufficient resources in their budget to facilitate the implementation of risk management tools, frameworks and a full risk management implementation strategy.

The conclusion has highlighted that all mitigation measures require resources to implement anything outside this or a lack of funding would not have issues of good results in exposure mitigation. Lack of funds has been reckoned to be one of the most pressing challenges of implementing risk management in a typical organisation (Fraser & Simkins, 2016). organisations should attach high priority in resource allocation towards RMI to overcome the challenges that make it difficult for others to justify the expense on risk management issues. The organisation's measure of support of RMI is how heavy the budget line reserved on resources for implementing risk management is in proportion to the others.

2. *There are twelve established factors recognised to be significantly responsible for determining the risk management integration levels in Zambia and other developing countries. The confounding variables are core and mostly external while the independent variables are merely hygienic necessary to supplement complete urge for a robust risk management integration – Table 5.1*

The second objective was based on finding out the significant factors responsible for influencing the integration of risk management in business organisations in Zambia and other developing

countries. The results gave a clear picture even on other non-financial Organisations. From the twelve conceptualised factors from the conceptual framework, all of them tested significance to the tests and hence conclude that many significant factors influence the integration of risk management in an Organisation across Organisations both financial and non-financial. These factors include firm size, manager's motive and attitude, board involvement and many others.

Even if the findings were evaluated under strenuous challenges such as limited responses arising from the targeted number of respondents due to market confidentiality issues, cyber security and COVID 19 pandemic challenges. These had the potential to undermine the consistency and accuracy of the estimates and especially when it comes to generalising from the context of Zambia to the entire scope of developing countries. However, our conclusion on this objective test is within the acceptable validity and much accuracy of the estimates from the sample were supplemented by the secondary data in both developing and developed countries with a result in agreement with the finding. This increased the validity of the projections and estimates of the factors that influence the risk management integration. It is also concluded that the results respond to the research problem and purpose through bridging the gap between the ideal status and the actual reality by exposing the intensity of the twelve factors among others which affect the integration of risk management in various types of Organisations beyond the financial industry. It is concluded that confounding factors such as resources, firm size, regulators, and industry type were among the twelve different core variables responsible for the variation in the degree of firm's response to RMI and the other independent variables such as risk tools, risk framework, risk regulators, and risk structures are key hygienic needs of risk management.

The factor of risk management regulations on RMI in FI alone was 74.8% in ratio for a strong or very strong effect. This shows that risk regulations should be set up in all organisations and not in financial institutions alone to execute pressure on compliance. Many financial organisations were found to be embracing more than others. This objective was concluded to be a guide to decision making and was in close perfect agreement with the developed variables in the conceptual framework all supported by the available literature. The twelve factors were a constituent of the rectangular pattern of the conceptual framework diagram making up a division and they made up the three sides of the figure having independent variables on the bottom, dependent variable at the

centre and confounding variables to the left. The literature derived factors were backed up with the empirical findings from the primary data. It is confirmed that these RMI determining factors had the leeway to be replicated or verified in other similar contexts and the same methodology to form up an established theory.

The research findings on objective two did not only agree with what was projected in the conceptual framework but also agreed with several facts as suggested in the literature. The objective finding contributed much to the literature by gathering a defined form of the factors significantly needed to be prioritised wherever and whenever an organisation wishes to integrate risk management in its strategy. It can be concluded that there are enough literature elaborating the role and importance of risk management in Organisation as well as individuals (Isa, Mustaffa & Preece, 2020; Pali, 2019) but there was a gap explaining to what extent has the RMI been embraced and what factors are responsible for determining the extent of risk management (Yembi Renault & Ansary, 2018). This research has organised together with the list of visible RMI determining to help them benefit and has added to literature an organised approach to achieve a robust risk management system. In practice, the meeting of the second research objective paved the way for practical application of the material to all Organisations

It can be concluded that all firms need to consider their size to see the appropriateness of their risk management system in line with exposures. They should check the motive and attitude of their managers directly involved in the implementing process of their risk management programme and the Organisation should seriously provide resources and many more. In future, there is a need to carry out similar research on objective two and establish a consistent conclusion on how much of each factor listed affects the RMI in either the same or different contexts and locations as well as the methodology to validate the findings.

Table 5.2. The twelve factors of RMI in Zambia and Developing Countries

Factor	Conclusion
Industry type	79.6% ratio industry type has a strong effect or very strong influence on RMI in FI

Manager's Motive	74.8% ratio managers' motive has a strong effect or very strong influence on RMI in FI
Manager's Attitude	73.5% ratio managers' attitude has a strong effect or very strong influence on RMI in FI
Board Insight	66.0% ratio Board insight has a strong effect or very strong influence on RMI in FI
Internal – External Best fit	78.9% ratio internal-external fitting has a strong effect or very strong influence on RMI in FI
Firm Size	77.8% ratio firm size has a strong effect or very strong influence on RMI in FI
Organisation Risk Structure	53.7% ratio strong/very strong in structure while weaker link but high proportion on RMI in FI,
Risk Frameworks	63.2% ratio strong or very strong effect of a framework on RMI in FI,
Risk Management Regulations	74.8% ratio strong or very strong effect of Risk Management Regulations on RMI in FI,
Risk Management Tools	66.7% ratio strong or very strong effect of Risk Management Tools on RMI in FI,
Risk Management Resources	78.9% ratio strong or very strong effect of Risk Management Resources on RMI in FI,
Environmental Change/Threats	77.6% ratio strong or very strong effect of Environmental Changes and Threats on RMI in FI,

Source: Author (2022)

3. *About One-third of financial institutions have in place advanced risk management systems and a combined two-thirds of them have in place a basis. Other non-financial firms are lagging in RMI in Zambia and other developing countries with only basic RMI.*

The third objective focused on the need to determine the extent of assimilation of risk assessment in banking firms in terms of the presence of and intensity of internal risk frameworks that comply with international risk guidelines in developing countries. To measure this objective, the variables combined the inquiry on the Risk Management Frameworks and Risk Tools both of which were found to be statistically significant for the FI. Hence it can be concluded that a range from majority to almost 100% of all those who reported having advanced tools used in managing risk is from FI. While standard risk measurement methods and methods such as the heat maps comprised a combined proportion of almost three in every four (71.6%) for FI, particularly banks. This led to conclude that majority of financial institutions had advanced risk management tools in place where the outcomes of the risk assessment are recorded as business key performance indicators such as Value at Risk, Cashflows at Risk, Earnings at Risk, RAROC, KPI at Risk, and Schedule at Risk. It was also established and concluded that the situation is different in organisations other than financial institutions which were found to be the opposite, as the majority was found not to have any substantive risk framework and tools.

The limitations identified in the context of the conclusion was the challenge from the respondents who might have not precisely represented their risk management framework obtained in their organisation. The fact that non-risk experts were sometimes selected to respond on behalf of the organisation made some not be sure of the actual risk management systems in the organisation. Some might have reported none when they had some defined aspects of risk management. While failure to classify them made some report on extremes depending on how they perceived the consequences. For those who are under regulations, they might have reported the biased position towards a robust one for fear of leaking to regulators. But the conclusion was not assessed to be undermined by such perceived limitations because the sample size was large enough to net off all irregularities and could define the true picture with increased validity. This objective responded to the research problem by unswervingly bridging the gap that separated the ideal situation from the

actual reality by highlighting the probable extent to which business organisations in Zambia and other developing countries have integrated risk management in their system.

The findings led to the conclusion that the majority of financial institutions have advanced or fair levels of risk management integration, unlike the non-financial institutions which were found to be significantly lacking behind. Notably, 100% of all the respondents who reported a robust risk management framework with tools such as value at risk all came from financial institutions and none from other types of organisations. This answered the question of to what extent and has responded to the research general objective. The finding harmonised with the independent variables of the conceptual framework backed up with the literature supported the need for risk management tools and framework as a prerequisite in the risk management integration (Abrams et al., 2007; Andronache, 2019). The outcome provided the basis for which future refinements might convert the conceptual framework into theory.

The conclusion has claimed weight in the contribution to existing literature where risk management framework and tools can now be recognised to be among the significant factors to consider in risk management integration across all industries. Literature has been enriched with the fact that the twelve factors are highly appreciated and widely implemented by financial institutions more than in other organisations which were considered. The finding did not conflict with the literature as some researchers had a preliminary validation of the importance of risk management framework towards risk management along with recommendations (Chen, Chuang, Huang & Shih, 2020). The results on objective three have significant implications in practice as they help all organisations to consider the risk management tools and framework as a major ingredient in the integration of risk management for many highly risky environments. Financial institutions which are known to be highly risky as observed by other scholars like Naser (2019) were found to be highly integrated with risk frameworks, with a few hygienic gaps for improvement.

The conclusion points to the trial and reminder of which organisation are at which stage. It reminds organisations to realise how much they are lagging or are far ahead and see the need to equally

follow the pattern to set up risk management frameworks for managing emerging risks in the business environment. In future research, there is a need to probe more on how much of risk framework and risk management tools separately affect the RMI in the same or different firms and contexts of locations and methodology to validate the findings.

4. *There is a significant variation in risk management integration across industries. The highly perceived systematic risky industries such as the financial industry and firms like banks register a high RMI than those in a low perceived and or NFIs in Zambia and developing countries.*

The fourth objective aimed at answering the question of to what extent has risk management been integrated across different firms and industries in developing countries? The conclusion is that while other institutions were found to be having a weak RMI in most of those areas, financial institutions were found to have a significant level of RMI in all the variables but with differing intensity. A total of eleven variables emphatically evaluated the dimension some of which included the levels of risk management integration (RMI) in planning and budget, decision making, back-office processes and risk analysis effects on objectives, among others.

The measurements were hampered by the perception of extreme ratings by the respondents. The inability to denote their actual risk management position on the variable led some to merely estimate with some margins of error. This tendency of giving biased information even in absence of incentives is a common feature of humans (Rutebemberwa, Namutundu, Gibson, Labrique, Ali, Pariyo & Hyder, (2019). However, the conclusion is still valid as it was based on the interpretation of the results from a larger sample size which led to the internal validation and consistency. The conclusion of the results of the objective ably responded to the research problem by directly explaining the gap that separated the ideal situation from the actual reality by highlighting the probable extent to which firm type has influenced the levels of risk management integration in the Organisations. The results determined that the extent of risk management integration significantly varies across industries with the financial industry achieving consistent and advanced or to a minimum fair level of risk management integration, unlike the non-financial institutions which

were found to be significantly lacking behind. Other findings essentially paralleled this conclusion from many other researchers (Callahan and Soileau, 2017; Chance, 2021).

It was also established that the finding harmonised with both the independent and the confounding variables of the conceptual framework derived from literature. All the variables were established to have a significant influence on the level of risk management integration across all types of Organisations. The significance of this outcome provides the basis for verifying the conceptual framework and developing it into an established theory. The understanding of the positioning of these variables such as back-office and core functionalities involvement in risk has contributed to the literature by claiming the space on the list of established factors in RMI. Table 5.3 summarises the ten metrics of the RMI across the industry.

5. *Essentially all banks have an established formal risk management unit in form of a department while financial Organisations such as insurances, bureau de change and lending institutions have a risk management programme without a department. Other types of non-financial firms have a casual approach system to risk management structure and no risk department.*

The final objective led to the conclusion that the majority of financial institutions had a formalised risk management structure while other institutions were found to be having a relatively undefined system or structure in their management of risk. In practice, Organisations consider the risk management structure as a major ingredient in the integration of risk management for many highly risky environments.

The pattern in risky financial institutions was found to be highly integrated with risk departments or units, although there were gaps that need improvement within the financial sector. The result has helped other Organisations realise the gap and appreciate the need to catch up with the trend to set up risk management units to cope with emerging risks in the business environment. There is a need to conduct further research on how much risk management structure affects the RMI in the same or different firms and contexts of locations and methodology to validate the findings. Table 5.1 summarises the established research conclusions from end to end.

Table 5.3 The top ten parameters measuring the overall extent of RMI across industries

Parameter	Finding	Conclusion
Risk Management Integration (RMI) In Planning and Budgeting	Significant for FI and Weak for NFI and Others	Only a significant proportion of financial institutions are engaged in ensuring that RMI is fully embedded in the planning and budgeting processes and non from other categories indicated this level of risk integration.
Risk Analysis effect on Objectives	Significant for both FI and NFI and Others	A minimum of 75% of FI is both risk outcomes directly affecting revision of goals and objectives before or after and two-third of NFI and others.
RMI In Decision Making Process	Significant for FI and Weak for NFI and Others	The results have indicated that FIs are highly involved in integrating risk management in their decision-making process over two-third for most of the decisions and one third only for those signs.
Board Meeting Risk Management Discussions	Significant for FI and fair for NFI and Others	Financial institutions have a higher proportion of board engagement and dedicated discussions on risk management. Other Organisations also registered a relatively high proportion of agendas for risk management in board meetings. This revealed that even if Organisations may not have risk departments or deliberate programmes, they still discuss risk matters in board meetings
Documentation of Risk Analysis Outcomes	Significant for FI and Weak for NFI and Others	Documentation of risk analysis outcomes is significant in financial institutions and relatively very low in other non-financial Organisations.
The Risk Management Integration in Core Operational Processes	Significant for FI and Weak for NFI and Others	It appears that a significant proportion of FIs also carry out integration to meet the regulatory requirements
RMI in BackOffice Processes – Procurement, Finance, ICT and Legal	Significant for FI and Weak for NFI and Others	The results show an even distribution of FI among informal, ad-hoc and integral levels in the integration of RM in back-office processes. While NFIs were clustered around informal and less on Adhoc and integral.
Risk Management Disclosure and Management Reporting	Significant for FI and Weak for NFI and Others	A total proportion of 72% of FIs was found to be involved in risk management disclosures and reporting in management at least with minimum requirements or up to full risk procedure in line with ISO standard.
Risk management Interaction with Internal Audit	Significant for FI	The FIs have a higher pattern of the link between risk and Audit - either their risk management provides information to audit or the entire plan, report structure and scope of control activities are based on risk information.
Self-Rating on Risk Management Integration Adequacy in the Organisation	Weak for both FI and NFI	The findings revealed that a very low proportion across all types of firms NFI inclusive gave a rating of low-risk management integration adequacy in their Organisation

Source: Author (2022)

Table 5.4 Summary of Findings on Research Questions

Research Study Topic	Research Questions	Method of Study	Findings of Questions	Interpretation Limitations	Reaction to Purpose	Alignment C/Framework	Contribution to Literature	Implications to Practice,	Recommendations Top 10 – To have;	Future Research Top 10 – Find the;
<i>An Investigation into the Extent to which Risk Management has been integrated into business organisations in Zambia and other Developing Countries: Case Study of Zambia</i>	What budget proportion is towards RMI in developing countries (DCs)	Mixed-Method	Significant Budget on RMI by (FI) and fair for Others DCs	Limited sample (158) generalised to all DCs, under or overstating	The highest extent in risky FI and fairly levels in non-FIs	Harmony with Conceptual Framework and backed up by Literature	Variation in the resource commitment towards RMI	All firms to have a budget reserved for RM operation and CAPEX	Proactive RM past industry risk profile Corp. governance managers' interest	Value of RM past Industry Risk Reduce Principal-Agency Problem
	What factors influence RMI in FI in DCs?		Twelve factors were established to affect RMI	confidentiality, cyber security, COVID 19 pandemic issues	Explained reason for variation in RMI in different DCs.	In Harmony with Conceptual Framework and Literature	Gives guide of factors to consider for adopting for robust RMI	Companies to respond to appropriate factors directly affecting RMI	Risk return training RM issues on Board meetings agenda	Impact of RM Training on RMI Depth/Frequency RM Board agenda
	Do FIs have standard risk frameworks in DCs?		One-third of FI have advanced, and two-thirds have basic	The inability for respondents to give accurate risk profiles or in extremes	Showed the extent of RMI both in FIs and NFIs	In agreement with Conceptual Framework	Present a trend of RM frameworks across industries	All firms FI or NFI to adopt a standard RM framework to match strategy	Responsive, best fit, contingency RM SMEs to adopt RM framework	Viable of Elastic RM Framework Small Firm RM Benefits/Challenges
	What is the extent of RMI across the different industries in DCs?		risky FI (e.g., banks) have high RMI than NFIs	Compliance fears, sympathy seeking affect responses	More extent in FIs, Less in NFIs	No conflict with Conceptual Framework	The firm pattern of variation of RMI across industries	Due to changes in systematic risk style, firms to up RMI	Prioritise risk Dept. Regulators to put RM for compliance	Why Low rate of RM Department. Assess Regulatory RM Practice Replicate And Validate research Value of resource allocation for RM
	Are there risk structures in Organisations in DCs?		Present in banks, casual in other FI, and none in most NFIs	Confidentiality policies, cyber security, COVID	More extent in FIs, Less in NFIs	agrees with Conceptual Framework	The industry trend of risk department distribution	Stressed need to establish functional risk department	Compulsory RM model, frame, tools Reserve resources to RM budget	

Source: Author (2022)

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APPENDICES

Appendix A: Financial Sector Population – Bank And Non Bank Institutions

Non-Bank Financial Institutions –2021
www.boz.zm
Non-Bank Financial Institutions – October 2020
BUILDING SOCIETIES
1. Zambia National Building Society
Plot No. LUS/15, Century House, Sapele Road, PO Box 30420;
znbs@iconnect.zm
Lusaka
+260-211-229191
+260-211-225510
2. LOLC Finance Zambia
Green City Office Park
Kelvin Siwale Road
Off Thabo Mbeki
Lusaka
info@lolczambia.com
Lusaka
+260-211-251258
CREDIT REFERENCE BUREAUX
1. Credit Reference Bureau Africa Limited
Fifth Floor, Sun Share Tower
Katima Mulilo Road
Olympia
P O Box 31199,
Lusaka
+260-211-224263
+260-211-220530
+260-211-224252
DEVELOPMENT FINANCE INSTITUTIONS
1. Development Bank of Zambia
Development House, Katondo Street, P.O. Box 33955; dbzmail@dbz.co.zm
Lusaka
+260-211-228576
+260-211-228588
LEASING AND FINANCE COMPANIES
1. Agricultural Leasing Company Zambia Limited
Unit 214 B, Foxdale Court Office Park, Mama Betty Building
609 Zambezi Road
Lusaka
+260-969-785314
2. Alios Finance Zambia Limited
Stand No.20849, Corporate Park, Alick Nkhata Road P.O. Box 3370; zambia@aliosfinance.com
Lusaka
+260-211-256592
+260-211-256846
+260-211-256582
3. Betternow Finance Company Limited
Plot No. LUS/1146, Lagos Road
Rhodes Pak
P.O. Box 32170, info@betternowfinance.co.zm

Lusaka
+260-211-295281
+260-211-295282
4. Business Partners International Zambia SME Fund Limited
First Floor, Block 3, Corporate Park, Alick Nkhata Road
PO Box 20849;
Lusaka
+260-211-843277
+260-211-843277
5. Greenbelt Finance
GSS Sheds, Plot 12600, Mwembeshi Road;
Lusaka
+260 -211 846380
+260 -211 846380
Zambia Limited
6. JUMO Zambia Limited
Chila Office Block, 1 Chila Road, PO Box 32923, Kabulonga
Lusaka
+260-965-632429
7. Zambian Home Loans Limited
Plot No. 35370, Garden Plaza, Thabo Mbeki Road
PO Box 32344; info@zambianhomeloans.com
Lusaka
+260-211-293389
+260-211-293389
SAVINGS AND CREDIT INSTITUTIONS
1. National Savings and Credit Bank
Plot 248B, Cairo Road, P O Box 30067;
info@natsave.co.zm
Lusaka
+260-211-226234
+260-211-224771
+260-211-231438
MICROFINANCE INSTITUTIONS
1. Agora Microfinance Zambia Limited
Plot 57A Lukanga Street, off Zambezi
Post Net 745, Manda Hill
Lusaka
+260-211-847838
+260-211-848838
2. ALS Capital Limited
Unit 5, Nexus Centre, Malambo Road. PO Box 31986; info@alscapital.co.zm
Lusaka
+260-211-244335
+260-211-244336
3. Altus Financial Services Limited
Mpile Office Park, Plot 74, Independence Avenue
Post Net 392 E10, Arcades
Lusaka
+260-978-872708
+260-955-956266
4. ASA Microfinance
Plot No. 1454, Makishi Road, Northmead
Lusaka
5. Bayport Financial Services Limited
Plot No. 68, Bayport House, Independence Avenue, P.O. Box 3318; info@bayportfinance.com
Lusaka
+260-211-253922
+260-211-252386

6. Chibuyu Financing Company Limited
Mezzanine Floor, M11, Findeco House. PO Box 37789,
Lusaka
+260-0977-414610
7. Christian Empowerment Microfinance Zambia Limited
Mwanawina Road, Boma Area
P O Box 910227;
Mongu
+260-955-152032
+260-950-382398
8. Direct Finance Limited
Permanent House, First Floor Wing M, Room 152
P O Box 37545; directfsl@gmail.com
Lusaka
+260-954-194778
9. Dsight Finance Limited
Stand No. 4183,
Lukasu Road
Rhodes Park
jsiakachoma@dsightfinance.com
Lusaka
+260-972548112 +260-953268347
10. Easy Cash Financial Services Limited
Plot No. 5180/81, Chishango Road, Villa Elizabetha
P O BOX 35887
Lusaka
+260-211-237409
+260-977-772207
+260-977-923298
11. Ecsponent Financial Services Limited
Ground and First Floors, Finance House, Heroes Place, Cairo Road, Post Dot Net box 316, Private Bag E1
Lusaka
+260-969-705777
+260-969-705777
12. Elpe Finance Limited
Plot No. 1020, Northend, Cairo Road, P.O. Box 35560; elpefinance@microlink.zm
Lusaka
+260-211-230366
+260-211-230366
13. Fair Choice Finance Limited
Plot No. 1
Corner of Kawama and Mosi O Tunya Roads,
Woodlands
Lusaka
+260-211-238589
+260-211-238589
14. FMC Finance Limited
Third Floor, Exchange Building
Central Park, Cairo Road
Lusaka
+260-211-256865/6
+260-211-256863
15. FINCA Zambia Limited
Plot No. 22768, Building 32, Stand No. 4, Acacia Park,
Corner of Great East and Thabo Mbeki Road, PO Box 50061, RW; finca@finca.co.zm
Lusaka
+260-211-291903
+260-211-291903
16. Goodfellow Finance Limited

Plot No. 4448/8, Chaholi Road
Rhodes Park
Lusaka
+260-0211-238719
+260-0211-238719
17. Izwe Loans Zambia Limited
Plot No. 471, Shop No. 3A, Cairo Road, P.O. Box 31747; lusaka.cairo@izwezambia.com
Lusaka
+260-211-223350
+260-211-223349
18. Madison Finance Company Limited
Plot 318, Independence Avenue, PO Box 34366;
Lusaka
+260-211-231983
+260-211-231986
19. Meanwood Finance Corporation Limited
Fourth Floor, Design House, P.O. Box 31334
Lusaka
+260-211-236165
+260-211-236170
20. Microfinance Zambia Limited
Suite 2, Stand No. 19028/B, Mulungushi Building,
Great East Road
P O Box 37102 Lusaka
+260-211-237180
+260-211-237155
+260-211-236936
21. Microloan Foundation Limited
Plot No.346
Chelstone Green, Salama Park
P O Box 310082
Lusaka
+260-211-355738
+260-979-618001
+260-216-223833
+260-211-355738
22. Moneta Finance Limited
Morton House, Stand 7, Office 1
Cairo Road
P O Box 37819
Lusaka
+260-966- 666001
23. Nchanga Financial Services Limited
Plot 4866 Stand No. 4, Station Road, Mwaiseni, P O Box 10097;
Chingola
+260-212-310801
+260-212-311501
24. Pulse Financial Services Limited T/A Entrepreneurs Financial Centre
Unit No.11, Second Floor, Pangaea Office Park, Off Great East Road, P.O. Box RW 51269
Lusaka
+260-211-233137
+260-211-233136
25. Robert & Syls Microcredit Limited
Plot No. 1259/10, Mambilima Road, Rhodes Park, Post.Net Box 20, P/Bag E89, Manda Hill;
Lusaka
+260-211-258549
+260-211-258549
26. Sigma Financial Solutions Limited
Suite No. 116, Carousel Shopping Mall, Corner Kafue/Lumumba Roads, P O Box 35062

Lusaka
+260-966-436809
Non-Bank Financial Institutions – July 2020
www.boz.zm
27. Tandiza Zambia Finance Limited
Plot No. 2500, 1st Floor, Anchrise House City Square tandiza@tandizazambia.com
Kitwe
+260-212-221754
+260-212-221754
28. Unity Finance Limited
1 Chila Road, Kabulonga, P.O. Box 35721; info@unityfinance.co.zm
Lusaka
+260-211-233084
+260-211-221179
29. VisionFund Zambia Limited
Stand No. 6810
Chiwalamabwe Road, Olympia Extension
PO Box 33911
Lusaka
+260-211-225146
+260-211-225142
30. Xtenda Finance Limited
Mambilima House, Kabelenga Road PO Box 51499; kamal.desai@oryxfinance.co.zm
Lusaka
+260-211-238778
+260-211-238779
31. YesCash Zambia Limited T/A Expresscredit.co.zm
Plot Number 3, Kalembe Close
Off Great East Road
Po Box 32370
Lusaka
+260-211-239770
+260-962-303662
+260-211-239770
32. Zambou Financial Services Limited
Plot No. 21, Kabengele Avenue, PO Box 40348; robert@zamboufinance.com
Kitwe
+260-966-998106
+260-966-998106
BUREAUX DE CHANGE
1. ACE-FX Bureau de Change Limited
Shop No. 33, Iringa Mall, ChaChaCha Road, P.O Box 34253;
Lusaka
+260-973-692920
ace_fxbureau@yahoo.com
2. Amachi Bureau de Change Limited
1st Floor, Room F2
Downtown Shopping Mall
Kafue Road
P O Box 350157
Lusaka
+260-211-840624
amachibureaudechange@gmail.com
3. A-Plus Bureau de Change Limited
Southern Sun Hotel Premises, Church Road; P O Box 38235;
Lusaka
+260-211-225518
a.plusbdc@gmail.com
4. APT Bureau de Change Limited

Shop No. 3, Mezzanine Floor, Findeco House, Cairo Road, P O Box 34553;
Lusaka
+260-211-225637
+260-977-307511
aptbureaudechange@yahoo.com
5. Base Bureau de Change Limited
Room 11, First Floor, Limson House, Freedomway, P O Box 50967 RW;
Lusaka
+260-977-111427
basebureaudechange@gmail.com
6. Becky's Bureau de Change Limited
No. 5/6 Codrington House, Plot 3518, Nkwazi Road, P.O Box 50727;
Lusaka
+260-211-228217
bureau.beckys@gmail.com
7. Best Link Bureau de Change
Kasupa Road
Light Industrial Area
Lusaka
+260-963-461362
bestlinkbureau@gmail.com
8. Big Deal Bureau de Change Limited
Plot No. 397/0/1, Chipwenupwenu Road, Off Kafue Road
Lusaka
hazel_bigdeal@outlook.com
9. Bimm Bureau de Change Limited
Luangwa House, Cairo Road, P O Box 34656;
Lusaka
+260-211-220647
bimm@microlink.zm
Non-Bank Financial Institutions – July 2020
www.boz.zm
10. Bullion Bureau de Change Limited
Shop No. 3, Plot No. 12, Lonrho House, Cairo Road, P O Box 35248
Lusaka
+260-211-235196
+260-977-691983
bullionbureau@gmail.com
11. C & A Bureau de Change Limited
Manda Hill Shopping Mall, P O Box 32007;
Lusaka
+260-211-235543
cabureau@zamtel.zm
12. Casha Bureau de Change Limited
Shop No. L5, Kamwala Shopping Mall, P O Box 32543;
Lusaka
+260-211-232922
+260-955-797827
+260-977-788026
cashabureau2009@yahoo.com
13. CFB Bureau de Change Limited
First Floor, Ambia House, Cairo Road, P O Box 33456;
Lusaka
+260-211-231109
+260-977-883209
cfbforex@gmail.com
14. Challenge Bureau de Change Limited
Plot No. 733, Chadwick House, ChaChaCha Road, P.O Box 36020;
Lusaka

+260-211-229359
+260-977-418581
habanjjjean@yahoo.com
15. Chibuyu Bureau de Change Limited
Mezzanine Floor, Room M11, Findeco House, P O Box 37789;
Lusaka
+260-977-414610
+260-211-237682
+260-978-678697
edith_chansa@yahoo.com
16. Contech Bureau de Change Limited
Shop No. B5, Unibon Shopping Complex, COMESA Market, Lumumba Road
Lusaka
+260-977-303132
+260-950-341180
contechengltd@gmail.com
17. Cross Rate Bureau de Change Limited
Shop No. 87, Stand No. 5309, Oasis Mall, Dedan Kimathi Road:
Lusaka
+260-977-874180
Crossrate2017@gmail.com
18. Crystal Bureau de Change Limited
Comcapital House 7393
South End, Chainda Place
Cairo Road
P.O Box 30436
Lusaka
+260- 977 - 788070
belialungu@gmail.com
Non-Bank Financial Institutions – July 2020
www.boz.zm
19. Dilt Bureau de Change Limited
Shop No. 42, Levy Business Park, Church Road, P O Box 36413;
Lusaka
+260211 324091
diltbureaudechange@yahoo.com
20. Dimes Bureau de Change Limited
Katozi Building complex, Great North Road,
Nakonde
+260-977-872106
+260-967-901030
dimesbureaudechangeltd@gmail.com
21. Don Chi Bureau de Change Limited
Plot No. 477, Great North Road, P O Box 430106;
Nakonde
+260-977 575116
+260-971-518330
smartzimba@yahoo.com
22. Dondou Bureau de Change Limited
Ground Floor, Hotel Edinburgh, Independence Avenue, P O Box 23110;
Kitwe
+260-212-232017
+260-974 912057
abdoulmbodji@hotmail.co.uk
23. El Thomas Bureau de Change Limited
Great Wall Casino Premises, Lumumba and Kafue Roads junction, P O Box 34253;
Lusaka
+260-211-222879
el_thomas44@yahoo.co.uk

24. ESNA Bureau de Change Limited
Plot 1209, Shop 2, Sapele Road, P O Box 34459;
Lusaka
+260-979-780008
crispinkabole@gmail.com
25. Excel Bureau de Change Limited
Shop No G34, Downtown Shopping Mall, Kafue Road, P.O Box 33283;
Lusaka
+260-211-238324
+260-973-511842
ndinawe2004@yahoo.com
26. Favour Bureau de Change Limited
Shop No. 4259, Katozi Village;
Nakonde
+260-966-704544
Favourbureau2017@gmail.com
27. Flex Bureau de Change Limited
Plot No.25/26, Nkwazi Road, P.O Box 37804;
Lusaka
+260-211-225316
flexbreaudechange@yahoo.com
28. Forex King Bureau de Change Limited
Luangwa House, Cairo Road, P O Box 36175;
Lusaka
+260-211-236730
forex@gmail.zamtel.com
29. Forex Master Bureau de Change Limited
Suite No. 1, Ground Floor, Lottie House, Cairo Road;
Lusaka
+260-211-229167
+260-955-229167
ruebenmwanza@yahoo.com
30. FS Bureau de Change Limited
Plot No. 8479, Lumumba Road, P.O Box 34982;
Lusaka
+260-211-840072
+260-211-287133
+260-978-842225
travelssavannah@gmail.com
31. FX Africa Bureau de Change Limited
Plot No. 4467 – 4468, Kenneth Kaunda House, Cairo Road, P O Box 51086, Ridgeway;
Lusaka
+260-211-222247
+260-977-809866
mbahaamaundu@gmail.com
32. Golden Coin Bureau de Change Limited
Shop No. 2, Farmers House, Central Park, P O Box 36552;
Lusaka
+260-211-235850
pykalumba@gmail.com
33. Goldfield Bureau de Change Limited
Manilux Building, Corner of Nkwazi road and Freedomway, P O Box 32253;
Lusaka
+260-211-233847
goldfieldbureau@yahoo.com
34. JIT Bureau de Change Limited
Plot No. 10549, Shop No. 22, Westgate Shopping Complex, Lumumba Road, P O Box 36720;
Lusaka
+260-211-846417

williemchishimba@gmail.com
35. Kasinja Bureau de Change Limited
Chuundu House, Cairo Road, P O Box 36175;
Lusaka
+260-977-746233
kasinja@gmail.com
36. KCool Bureau de Change Limited
Plot No. 31, Mota Shopping Complex, Nyerere Road, P.O Box 670136;
Lusaka
+260-954-550930
+260-977-865198
kellinessngomsa@yahoo.com
Non-Bank Financial Institutions – July 2020
www.boz.zm
37. Khobili Bureau de Change Limited
Shop No. 13, Plot No. 470, Cairo Road, Post Net 79, P/B E 891
Lusaka
+260-211-292979
+260-977-759326
juls.travel@travelport.co.zm
38. Khondwani Bureau de Change Limited
Shop No. 4(ii), Lusaka Hotel Building, Katondo Street, Post Net 303, Manda Hill;
Lusaka
+260-977-789872
info@khondwanibureaudechange.com
39. Lawak Bureau de Change Limited
Shop Number.37B, Lewanika Mall
Woodlands
LUSAKA
Lusaka
+260 974 773828 +260 977 856068
lwkamanga@gmail.com
40. Link Bureau de Change Limited
Plot No. 727, Corner of Kalambo Road and Freedom Way, P O Box 35297;
Lusaka
+260-211-223706
linkbureaudechange@gmail.com
41. MKB Bureau de Change Limited
Shop No. 7, Limson Building
Freedom Way
Lusaka
+260-976-637957
+260-961-311173
+260-977-649127
Mwamba.kashinga@gmail.com
42. MASTT Bureau de Change Limited
Mastt Bureau de Change Limited
Shop No. 8, New Building
Intercity Bus Terminus
Dedan Kimathi Road
P O Box 36249
Lusaka
+260-211-261864
+260-211-222260/75
mastt.mushambo@microlink.co.zm
43. Megabyte Bureau de Change Limited
Kambendekela House, Dedan Kimathi Road, P O Box 320164;
Lusaka
+260-211-847728

albertmutale13@gmail.com
44. Mill Bureau de Change Limited
Plot No. 9945, Intercherm House, Kabelenga Road, P O Box 34647;
Lusaka
+260-211-235974
millbureau@yahoo.com
45. Mutumbi Bureau de Change Limited
Plot No. 19029, Great East Road, Radisson Blu Hotel, P O Box 36571
Lusaka
+260-962-219626
mukatimui@ymail.com
46. Mwilanga Bureau de Change Limited
Shop No. 47, Embassy Mall, Kafue Road, Postnet Box 415, Private Bag E 891, Manda Hill;
Lusaka
+260-977-836600
info@mwilanga.co.zm
47. My Queen's Bureau de Change Limited
Shop No. 96A, President Avenue, P O Box 78011;
Ndola
+260-966-848543
+260-954-800501
myqueenbureau@yahoo.com
48. NTC Bureau de Change Limited
Shop No. 5B Nirera House, Plot No. 51388, Dedan Kimathi Road, P.O Box 33459;
Lusaka
+260-211-845832
ntcforexbureau@zambia.co.zm
49. Pacific Bureau de Change Limited
Plot No. 10869, Comesa Market Area, Lumumba Road,
P O Box 36474;
Lusaka
+260-979-471427
pacificbureaudechange@zambia.co.zm
50. Pamoo Bureau de Change
Shop No. G31, Plot 36451, Downtown Shopping Centre, Kafue Road
Lusaka
+260-966-252046
emweete@gmail.com
51. Perfectlink Bureau de change Limited
Shop No 57, Lewanika Mall, Woodlands Stadium, Mosi O Tunya Road
Lusaka
perfectlinkbureaudechange@gmail.com
52. Plation Bureau de Change Limited
Shop No. 3, Sam Building, Karachi Street, Kamwala
Lusaka
53. Prestige Bureau de Change Limited
Suit C Mezzanine Floor, Indeco House, P.O Box 30436;
Lusaka
+260-977-655153
prestigebureaudechange@gmail.com
54. Quantum FX Bureau de Change Limited
Makeni Mall, Kafue Road, P O Box 35058;
Lusaka
+260-211- 274910
+260-965-621233
+260-950-710498
+260-971-252149
qfxbureau@gmail.com
55. RADOX Bureau de Change Limited

Ground Floor, Woodgate House, PO Box FW 467;
Lusaka
+260-211-227864
+260-977-350300
radoxbureau@gmail.com
56. Saints Bureau de Change Limited
Plot 1020, Public Pensions Building, Cairo Road, P O Box 51428;
Lusaka
+26-0211-227939
+260-966-185400
saints@zamtel.zm
57. Sammic Bureau de Change Limited
Store No. 17, Matero Mall, Plot 220, Commonwealth Avenue;
Lusaka
+260-977-418171
+260-955-418171
+260-977-429550
+260-955-181097
Samuel.chabuka@sammic.biz
58. Sigma Bureau de Change Limited
Suit No. 116, Carousel Mall, Lumumba Road, P O Box 350062;
Lusaka
+260-966-436809
+260-211-221795
sigma@zamtel. zm
59. Southern Comfort Bureau de Change Limited
Shop No. 7, Kanele Shopping Centre; Kafue Road, P O Box 38329;
Lusaka
+260-973-369729
tklucky2000@gmail.com
60. Stallion Bureau de Change Limited
Shop No. 7, Iringa Shopping Mall, Corner of ChaChaCha and Ben Bella Roads, P.O Box 50008;
Lusaka
+260-211-225821
stallionbureaudechange@gmail.com
61. Struts Bureau de Change Limited
Crossroads Shopping Mall, Kabulonga, P O Box 36341;
Lusaka
+260-211-256378
+260-955-805100
+260-974-004152
struts@zamnet.zm
62. Superstar Bureau de Change Limited
Stand No. 7, Room 1, Morton House, Nkwazi Road, P O Box 30045;
Lusaka
+260-211-239814
+260-977-328858
superstarbureaudechange@gmail.com
63. Top Rate Bureau de Change Limited
Flat 4, Block 2, Sable Road, Kabulonga;
Lusaka
+260-976-217660
bibikawa@gmail.com
64. Trade Vest Bureau de Change Limited
Shop 63, Oasis Mall, Dedan Kimathi Road;
Lusaka
+260-965-252627
brisangambo@gmail.com
65. Travelex Bureau de Change Limited

Plot 609, Foxdale Court, Zambezi Road;
Lusaka
+260-977-689595
georgejwill@gmail.com
66. Unimon Bureau de Change Limited
Plot No. 9471, Unit 45, Makeni Shopping Mall, P O Box 36774;
Lusaka
+260-211-274100
adarsh.ramesan@sd.uaeexchange.com
67. Unifinance Bureau de Change Limited
Plot No. 4432, Insurance House, Cairo Road, P O Box 35495;
Lusaka
+260-211-237575
+260-977-858719
bcm@realtime.zm
68. Vermak Bureau de Change Limited
Plot No. 6955, Shop No. 6, Longacres, Post Dot Net Box 256,
Private Bag E017;
Lusaka
+260-211-840632
+260-977-280294
+260-977-805890
mundubia@yahoo.com
69. Vistepan Bureau de Change Limited
Shop No. 10, Sunsoft Mall Chiparamba Road, P/Bag E835;
Lusaka
+260-977-797829
+260-977-889890
makatalalin@gmail.com
Non-Bank Financial Institutions – July 2020
www.boz.zm
70. Wealth Bureau de Change Limited
Shop No. 81, First floor, Southgate Mall;
Lusaka
+260-977-219103
+260-955-649737
wealthbureau@gmail.com
71. Wumi Bureau de Change Limited
Shop No. 1, Katozi Street, off Great North Road,
P O Box 430240;
Nakonde
+260-977-592060
+260-979-199260
wumibureau@gmail.com
72. Zamica Bureau de Change Limited
Plot No 397A, Stand No. 17693, Kafue Road, Makeni, P O Box 36571;
Lusaka
+260-211-847844
+260-966-324645
muteka@africon.biz
73. Zanwiche Bureau de Change Limited
Shop No. G027, Ground Floor, Society House, ChaChaCha Road, P O Box 31129;
Lusaka
+260-211-233282
zanwichebureau@yahoo.com
LIQUIDATED INSTITUTIONS
1. Access Financial Services Limited
Bank of Zambia
Non-Bank Financial Institutions Supervision Department

5th Floor, Annex Building
Bank Square, Cairo Road
Lusaka
2. Access Leasing Company Limited
Bank of Zambia
Non-Bank Financial Institutions Supervision Department
5th Floor, Annex Building
Bank Square, Cairo Road
Lusaka
3. CETZAM
Room H209, Second Floor, Woodgate House Cairo Road
Lusaka
Non-Bank Financial Institutions – July 2020
www.boz.zm
4. Commercial Capital Corporation Limited
Bank of Zambia
Non-Bank Financial Institutions Supervision Department
5th Floor, Annex Building
Bank Square, Cairo Road
Lusaka
5. Commercial Leasing Zambia Limited
Room 107, First Floor Woodgate House Cairo Road
Lusaka
6. Genesis Finance Limited
Bank of Zambia
Non-Bank Financial Institutions Supervision Department
5th Floor, Annex Building
Bank Square, Cairo Road
Lusaka
7. Gray Pages Financial Services Limited
Bank of Zambia
Non-Bank Financial Institutions Supervision Department
5th Floor, Annex Building
Bank Square, Cairo Road
Lusaka

REGISTERED COMMERCIAL BANKS IN ZAMBIA
1 AB BANK ZAMBIA LIMITED
AB BANK
LUSAKA
260-211-220835/36/38/40 – contact@abbank.co.zm
2 ACCESS BANK ZAMBIA LIMITED
PO. BOX 35273, LUSAKA
LUSAKA
260-211-227941/227956/ - zambiainfo@accessbankplc.com
3 ATLASMARA ZAMBIA
PO. BOX 37107, LUSAKA
LUSAKA
260 - 211- 257970-6 tnqulube@bancabc.com
4 BANK OF CHINA (ZAMBIA) LIMITED
BOC
PO. BOX 34550, LUSAKA
LUSAKA
260 -211-238686/8 executive.zm@mail.notes.bank-of-china.com

5 BARCLAYS BANK ZAMBIA
BBZ
PO. BOX 31936, LUSAKA
LUSAKA
260-211-366100-149 customerservice.zm@absa.africa
6 CAVMONT BANK LIMITED
CAVMONT
PO. BOX 38474, LUSAKA – mwansa.chisala@cavmont.com.zm
LUSAKA
260-211-360023/4
7 CITIBANK ZAMBIA LIMITED
CITIBANK
PO. BOX 30037, LUSAKA
LUSAKA
260 – 211-444492/3 – zambia.citidirect@citi.com
8 ECOBANK ZAMBIA LIMITED
ECOBANK
PO. BOX 30705, LUSAKA
LUSAKA
260-211-250056/7 ecobankzm@ecobank.com
9 FIRST ALLIANCE BANK LIMITED
FAB
PO.BOX 33959, LUSAKA
LUSAKA
260 - 211-229305 - Waiting
10 FIRST CAPITAL BANK ZAMBIA
FCB
PO. BOX 32678, LUSAKA
LUSAKA
260- 211-368750 info@firstcapitalbank.co.zm
11 FIRST NATIONAL BANK ZAMBIA LIMITED
FNB
PO. BOX 36187, LUSAKA
LUSAKA
260-211-366800 - fnb@fnbzambia.co.zm .
12 INDO-ZAMBIA BANK LIMITED
INDO - ZAMBIA
PO. BOX 35411, LUSAKA
LUSAKA
260-211-224979/225080/224653
13 INVESTRUST BANK PLC

INVESTRUST
PO. BOX 32344, LUSAKA
LUSAKA
260 -211- 294682/5,294463 investrust@investrustbank.co.zm
14 STANBIC BANK ZAMBIA LIMITED
STANBIC
PO. BOX 31955, LUSAKA
LUSAKA
260 -211-370000/23 zambiabcc@stanbic.com
15 STANDARD CHARTERED BANK PLC
STANCHART
PO.BOX 32238, LUSAKA
LUSAKA
260 -211-229242-59 customer.first@sc.com
16 UNITED BANK FOR AFRICA ZAMBIA LIMITED
UBA
LUSAKA
260 -211-255951-3
17 ZAMBIA INDUSTRIAL COMMERCIAL BANK LIMITED
ZICB
PO. BOX 30228, LUSAKA
LUSAKA
260 -211-233707 info@zicb.co.zm
18 ZAMBIA NATIONAL COMMERCIAL BANK PLC
ZANACO
PO.BOX 33611, LUSAKA
LUSAKA
260- 211-228979/425650-59/425683-4 customerservice@zanaco.co.zm

Source: Bank of Zambia, 2021

Appendix B: Data Collection Tools - Questionnaire And Interview Questions

Risk Management Integration in your Organisation Questionnaire

You have been purposively selected in this survey bearing the above captioned above-captioned subject. The overall aim of this research is to fulfil a case study that establishes the extent to which risk management has been integrated into financial and insurance companies in developing countries. The questionnaire has four distinct parts A to D. In part A, you are required to provide your demographic data and part B is the background information of your Organisation in terms of risk management functionality. Part C evaluates the extent of risk management integration in your Organisation and Part D measures the degree to which the cited factors are influencing the integration of risk management in your Organisation. You are not required to indicate the name or any identity of the Organisation you are answering for, and the information should be limited to what has been asked for. You can rest certain that the information you enter will be kept private.

I thank you for the valuable time taken to answer the questionnaire.

PART A: RESPONDENT DEMOGRAPHIC INFORMATION -TICK WHAT IS APPLICABLE

1. Your gender

- ☐ Male
- ☐ Female

2. Age

- ☐ Below 25 years
- ☐ Between 25 – 40 years
- ☐ Above 40 years

3. Your current position in Organisation

- ☐ Senior Executive
- ☐ Middle Management
- ☐ Clerical Role

4. Department you are working for

- ☐ Risk
- ☐ Audit
- ☐ Finance

- ☐ Other

5. Your length of service in the Organisation

- ☐ Less than a year
- ☐ Between one and three years
- ☐ Above three years

PART B: ORGANISATION BACKGROUND INFORMATION- TICK WHAT IS APPLICABLE

1. The industry/Sector where your Organisation falls

- ☐ Financial
- ☐ Non-Financial
- ☐ Other

2. The size of your Organisation

- ☐ Less than 20 employees
- ☐ 20 – 100 employees
- ☐ Above 100 employees

3. Is your Organisation under any regulatory body?

- ☐ No
- ☐ Yes
- ☐ Not sure

4. Does your Organisation have a risk management programme in its operational process?

- ☐ No
- ☐ Yes
- ☐ Somehow

5. Does your Organisation have a risk department functioning actively headed by senior staff?

- ☐ Yes
- ☐ No
- ☐ N/A

6. How much resources from your Organisation budget are allocated towards Risk Management

- ☐ Significant
- ☐ Not significant
- ☐ Negligible

If the answers to questions 4 and 5 are No or N/A, do not proceed to the next parts of this questionnaire.

PART C. RISK MANAGEMENT AND DECISION MAKING IN BUSINESS

This section evaluates how sophisticated risk management is implemented into your company's decision-making, planning, and performance management processes.

PLEASE TICK WHAT IS APPLICABLE FOR YOUR ORGANISATION

1. Incorporating risk into planning and budgeting

- ☐ The risk analysis results are not used to set goals / form the budget, if so on ad-hoc, not formalised
- ☐ Risks associated with strategic goals are assessed after budget adoption.
- ☐ Risk management is part of planning, and choices are based on risk assessments.

2. The impact of risk assessment on goals and budgets

- Risk Assessment impacts on the review of goals and budgets
- Risk assessments comes after losses and strategic goals reviewed afterwards
- Risk analysis output not matched with strategic goals and budget achievement.
- Other

3. Risk incorporation into decision-making processes

- Management makes major decisions after undertaking a comprehensive risk analysis.
- The risk assessment is only for major decisions and on ad hoc.
- There is no structured risk management that is systematic or transparent in making strategic choices.
- Other

4. Board meeting risk agenda (Board Insight)

- Risk management related topics are not included on the Board's agenda
- Risk management related topics are not included on the Board's agenda on adhoc or periodical basis.
- Issues of risk management are presented to the Board in a systematic, consistent and broad manner
- Other

5. Documenting the outcomes from risk analysis

- The outcomes of risk analysis are documented for use in major decisions
- While some risk analysis is done, the results are not always documented

- Risk assessment process is not formal and never documented
- Other

6. Integration into core operational processes

- Only risks under regulations are identified, analysed and managed by the organisation
- Risks to do with activities that are core in operations are managed on a periodical basis.
- Risk management forms an integral part of the core operational processes
- Other

7. The Tools of Risk management in use

- Risk analysis outcomes are not documented
- Risk analysis outcomes are presented in form of risk heat maps or risk registers only
- Risk analysis outcomes are not documented in key indicators such as Value at risk, Cashflows at risk, Earnings at risk, KPI at Risk, Schedule at Risk and the RAROC
- Other

8. Risk Integration into procurement, finance, IT, legal and other back-office processes

- Risk analysis by support units is informal and post factum (after event occur)
- The identification, Assessment and management of risk in back-office processes are managed on Adhoc
- Risk management in back office work makes up their integral part
- Other

9. Risk management disclosure in management reporting

- Risk management information is not covered in financial or management reporting
- Organisation risk management information disclosure of the organisation meets the minimum requirements
- Risk procedures and risk analysis outcomes are reported in line with **ISO31000:2018**
- Other

10. Interaction with Internal Audit

- Internal audit or internal control activities are not linked to any risk management processes
- Internal audit create risk based plans using expert risk management information
- All audit plans, audit report structure and audit work scope are based on risk information.
- Other

11. Rate the adequacy of the risk management system in your Organisation?

.....

.....

.....

12. What are the benefits you have observed of risk management in your Organisation?

.....

.....

.....

.....

13. What are the challenges faced by your risk management system in the Organisation?

.....

.....
.....
.....

14. What recommendations can you offer to improve the risk management system of your Organisation?

.....
.....

PART D. FACTORS AFFECTING THE INTEGRATION OF RISK MANAGEMENT IN YOUR ORGANISATION

In this section, indicate the degree to which the stated factor affects the integration of risk management in your Organisation

You are to tick what is applicable in your Organisation

Factor	Description	Strength of Influence on Risk Management Integration				
		Very Weak	Weak	No Effect	Strong	Very Strong
Type of Industry	If the nature of the industry has risky or less risky exposures					
Managers Motive	Managers interest to serve self or Organisation					
Managers Attitude	Managers perception of risk-risk fears, risk-takers or risk-neutral					
Board insight	The levels of board members interest and if up to date with risk issues of firm					
Internal-External Best Fit	The pressure to align the internal with the external environment demands					
Size of the firm	The size of the firm complicating or simplifying exposures to risk issues					
Organisation Risk Management Structure	The presence of or lack of risk department and structure					
Organisation Risk Management Framework	The presence of or lack of Risk Management Framework					
Risk Management Regulations	The presence of or lack of Risk Management Regulations					
Risk Management Tools	The presence/absence of Risk Management Tools					
Risk Management Resource Allocations	The presence/absence of Risk Resource Allocations					
Business environment Changes and threats	The presence/absence of Business environment changes and threats					

INTERVIEW QUESTIONS

PART A: DEMOGRAPHIC INFORMATION OF THE RESPONDENT-

1. Your gender
2. Your Age.....
3. Your current position in Organisation
4. Department you are working for
5. Your length of service in the Organisation

PART B: ORGANISATION BACKGROUND INFORMATION AND RISK MANAGEMENT PRACTICES

1. The industry/Sector where your Organisation falls
.....
2. The size of your Organisation
.....
3. Is your Organisation under any regulatory body?
.....
4. Does your Organisation have a risk management programme in its operational process?
.....
5. Does your Organisation have a risk department functioning actively headed by senior staff?
.....
6. How much resources from your Organisation budget are allocated towards Risk Management
.....

PART C. INTEGRATION OF RISK MANAGEMENT IN ORGANISATION

Research Questions	Interview Questions
1. What is the proportion of budget allocated by business organisations in Zambia and other developing countries towards the management of risks?	<p>1. Does your organisation allocate resources towards risk management in your Organisation?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>2. What is the estimated budget allocation on risk management system</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>3. Can you rate the strength of priority of meeting the costs associated with risk management in your organisation?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

<p>2. What factors influence the integration of risk management into business organisations in Zambia and other developing countries?</p>	<p>4. What makes you think are the major drivers for the integration of risk management in your Organisation?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>5. Which factors from those you mentioned have a stronger influence?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
<p>3. Do business organisations in Zambia and other developing countries have internal risk frameworks that complied with international risk management standards?</p>	<p>6. What internal risk management frameworks does your organisation have?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>7. Is the risk management system in your organisation subjected to regulatory compliance checks?</p> <p>.....</p> <p>.....</p>

	<div>.....</div> <div>.....</div> <div>8. Does your risk management framework comply with the international risk management standard?</div> <div>.....</div> <div>.....</div> <div>.....</div> <div>.....</div>
4. What is the extent of risk management integration across different firms and industries in Zambia and other developing countries?	<div>9. How much risk management integration do you think has been implemented in your organisation?</div> <div>.....</div> <div>.....</div> <div>.....</div> <div>.....</div> <div>10. To what extent do you think the type of your firm influences the integration of risk management in your organisation?</div> <div>.....</div> <div>.....</div> <div>.....</div> <div>.....</div>

	<p>11. To what extent do you think the type of your industry has influenced the integration of risk management in your organisation?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
<p>5. Are there formalised risk structures integrated into business organisations in Zambia and other developing countries?</p>	<p>12. What formalised risk structures do you have in your organisation?</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

Appendix C: Final UREC Approval Decision

Unicaf University Research Ethics Committee Decision	
Student's Name:	Peter Sitwimba
Student's ID #:	R1805D5220900
Supervisor's Name:	Dr Solomon Olajide Fadun
Program of Study:	UUZ: DBA Doctoral of Business Administration
Offer ID /Group ID:	O22074G22160
Dissertation Stage:	3
Research Project Title:	Investigating the Extent to Which Risk Management has been Integrated in Business Organisations in Developing Countries: Case Study of Zambia
Comments:	No comments
Decision*:	A. Approved without revision or comments
Date:	04-Mar-2021

*Provisional approval provided at the Dissertation Stage 1, whereas the final approval is provided at the Dissertation stage 3. The student is allowed to proceed to data collection following the final approval.

Appendix D: Informed Consent form



UU_IC - Version 2.1

Informed Consent Form

Part 2: Certificate of Consent

This section is mandatory and should to be signed by the participant(s)

Student's Name: PETER SILWIMBA

Student's E-mail Address: peter.silwimba@natsave.co.zm

Student ID #: R1805D5220900

Supervisor's Name: DR. OLAJIDE S. FADUN

University Campus: Unicaf University Zambia (UUZ)

Program of Study: DOCTOR OF BUSINESS ADMINISTRATION

Research Project Title: Investigating the Extent to Which Risk Management has been integrated into Financial and Insurance Institutions in Developing Countries: Case Study of Zambia

I have read the foregoing information about this study, or it has been read to me. I have had the opportunity to ask questions and discuss about it. I have received satisfactory answers to all my questions and I have received enough information about this study. I understand that I am free to withdraw from this study at any time without giving a reason for withdrawing and without negative consequences. I consent to the use of multimedia (e.g. audio recordings, video recordings) for the purposes of my participation to this study. I understand that my data will remain anonymous and confidential, unless stated otherwise. I consent voluntarily to be a participant in this study.

Participant's Print name:

Participant's Signature: _____

Date: _____

If the Participant is Illiterate:

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had an opportunity to ask questions. I confirm that the aforementioned individual has given consent freely.

Witness's Print name:

Witness's Signature: _____

Date: _____