

UNIVERSITY OF ZIMBABWE

DISSERTATION

Are Zimbabwean Banks employing adequate risk management strategies? The case of ZB Bank.

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degree of Master of Business Administration
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DECLARATION

I, **Clive Johannes Kopera**, do hereby declare that this dissertation is the result of my own investigation and research and except to the extent indicated in the acknowledgements, references and by comments included in the body of this report, and that it has not been submitted in part or in full for any other degree or University.

Student Signature.....

Date.....

Supervisor Signature.....

Date.....

DEDICATION

I dedicate this dissertation to the people who are closest to me as they are always my source of inspiration: Chido, my wife, my daughter Candice, my boy Cassidy, my mother my father; thank you all for the moral support during the course of my study. Lastly, but definitely not least, I thank the Almighty God for this and many other opportunities; past present and in the future.

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ABSTRACT

A sound financial system is the pillar for the development of an economy. The lack of prudent risk management strategies has led to the collapse of banking institutions both locally and internationally. This study investigated the adequacy of the risk management strategies at ZB Bank. It was premised on the proposition that local banks are not employing adequate risk management strategies to prevent financial distress as well as to enhance shareholder value.

The research used both the phenomenological and positivism approaches in the form of a questionnaire and a semi-structured interview guide. Data was collected from 38 questionnaires and interviews were conducted with 5 key informants of the bank. Secondary information from the case study also added flesh to the research.

The major findings were that the bank's strategies tend towards risk aversion and are not flexible to the dynamic environment in which it operates. Linked to that is an increasing credit risk profile weighing against the bank's overall performance thereby failing to maximise shareholder value. There are discordant views on certain aspects of the risk management strategies among the different categories of staff indicating lack of effective communication in the organisation. Also there is lack of depth in expertise in some key risk generating departments such as Credit Services and Consumer Banking.

The recommendations are that there should be a paradigm shift on the part of top management in as far as their risk aversion is concerned. Instead, a carrot approach that stimulates a balance between risk and reward should be adopted. The bank also needs to invigorate their credit risk strategies through a sectorial analysis of the current bad book and isolating high risk sectors. There is need for continuous studying by the bank of the environment in order to quickly identify possible adverse developments. Further research is recommended on the adequacy of the risk management strategies in local insurance firms.

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LIST OF ABBREVIATIONS AND ACRONYMS

3G	Third Generation
AIG	American Insurance Group
ALCO	Assets and Liabilities Committee
ATM	Automated Teller Machine
BCP	Business Continuity Plan
BoU	Bank of Uganda
BoZ	Bank of Zambia
CAMELS	Capital adequacy, Asset quality, Management, Earnings, Liquidity and Sensitivity to market risks
CBK	Central Bank of Kenya
CBN	Central Bank of Nigeria
CDH	Century Discount House
DRP	Disaster Recovery Plan
ERM	Enterprise Risk Management
Finhold	Financial Holdings Limited
GDP	Gross Domestic Product
GNU	Government of National Unity
IRB	Internal Ratings Based
IT	Information Technology
NBFI	Non-Banking Financial Institutions
NDH	National Discount House
NDIC	Nigeria Deposit Insurance Corporation
NINJA	No Income, No job or Assets
OECD	Organisation of Economic Co-operation and Development
OFAC	Office of Foreign Assets Control
PC	Personal Computer
PESTLE	Political, Economic, Social, Technological, Legal and Ecological
RAROC	Risk-adjusted Return on Capital

RBZ	Reserve Bank of Zimbabwe
SEC	Securities and Exchange Commission
SIFI	Systemically Important Financial Institution
SMS	Short Message Services
TRM	Total Risk Management
US	The United States of America
VaR	Value at Risk
ZBFH	ZB Financial Holdings Limited
ZEPARU	Zimbabwe Economic Policy Analysis and Research Unit

CHAPTER ONE

1.0 INTRODUCTION

1.1 Introduction

According to Kenc and Dibooglu (2009), a stable financial system – one that is not prone to systemic risk – is the backbone of a robust economy. This dissertation subscribes to the above notion and focuses on the assessment of the adequacy of the risk management strategies employed by a local banking institution. Nijskens and Wagner (2011) argue that banking institutions should be analyzed not only according to their individual risk, but also according to their contribution to systemic risk.

The global financial crisis that started in 2007 is the most serious setback the world economy has experienced since the great depression (Kenc and Dibooglu, 2009). What started as a credit crunch in July 2007 in the US spread to other countries and brought the financial system to a halt. There are numerous factors cited by Kenc and Dibooglu (2009) that have contributed to the financial crisis. Of particular importance are global macroeconomic imbalances, weak financial regulations and supervision and poor risk management practices. Banks share some of the blame for the global financial crisis because they were incompetent in their risk analysis. According to Hawkins, (2011) the banks put too much faith in esoteric mathematical models that senior bankers did not themselves understand and experimented with new financial instruments and derivatives because their rivals were using them and because they appeared to be highly profitable. Also because money was plentiful and interest rates were low during this period, they “chased yields” – i.e. they went after riskier loans and investments to gear up their returns.

On the local scene, the Zimbabwe's financial sector has also experienced very challenging financial crises characterized by bank closures and liquidations. Among the banks which were closed include: United Merchant Bank; Universal

Merchant Bank; Trust Banking Corporation; Intermarket Banking Corporation; Time Bank; Barbican Bank Limited; and Royal Bank Limited (Muvingi, 2011, p.5). It is with this background in mind that this research seeks to study if ZB Bank is employing competent risk management strategies to avert financial distress and enhance shareholder value. The study scrutinizes the various risk strategies being employed by the bank with the aim of coming up with recommendations that can enhance the performance of the organization.

1.2 Background to the Study

The introduction of financial sector reforms in Zimbabwe since 1991 resulted in locally owned private-sector banks and non-bank financial institutions gaining a significant share of banking and financial markets. The banking market had previously been dominated by oligopolistic foreign banks notably Barclays Bank of Zimbabwe and Standard Chartered Bank. The Reserve Bank of Zimbabwe, in its Monetary Policy Statement of January 2012, states that as at 31 December 2011, there were 26 operational banking institutions categorized as 17 commercial banks, 4 merchant banks, 4 building societies, and one savings bank in the form of the POSB. In addition there were also 16 asset management companies and 157 microfinance institutions under the supervision of the Reserve Bank. There were no discount and finance houses as at the same date.

The new local banks were expected to provide important benefits to the economy by boosting competition in banking markets, stimulating improvements in services to customers and expanding access to credit, especially to domestic small- and medium-scale businesses (Kupakuwana, 2010, p.7). But the attainment of these benefits has been jeopardized because the local banks have been vulnerable to financial distress generally attributable to laxities in their risk management policies as well as dishonest officials who have used the bank's funds for their own speculations. At the peak of the Zimbabwean banking crisis of 2004, ten banks were under curatorship, two banks were under liquidation and one discount house was closed (RBZ Monetary Policy Supplement, 2006). The

names of these troubled banking institutions were Century Discount House, Rapid Discount House, National Discount House, Barbican Bank Limited, Trust Bank Corporation Limited, Royal Bank of Zimbabwe Limited, Time Bank of Zimbabwe Limited, CFX Bank Limited, CFX Merchant Bank, Intermarket Banking Corporation Limited, Intermarket Discount House Limited and Intermarket Building Society.

The same supplement goes on to further state that most of these financial institutions were operating with inadequate risk management systems and poor management information systems. As a result some banks failed to timeously identify measure, monitor and control material risks. Consequently, controls were inadequate to mitigate the risks the banks were exposed to, leading to their failure.

1.2.1 Local Banking Industry Environment

It is important to note, at this juncture, that some of the non-core banking activities that the failed banks participated in the crisis years up to 2008; were a response to the highly turbulent macro environment prevalent then. Banks were forced to hedge their investments in less volatile products and in the process, they exposed themselves to liquidity risk and capital adequacy risk as most of their capital was locked in such illiquid assets as properties. Now the environment has significantly changed with the switch from using the Zimbabwe dollar as national currency to the multi-currency regime currently prevailing. Using the political, economic, social, technological, legal and ecological (PESTLE) framework, the researcher analyses the macro environmental factors that obtained in the banking industry.

1.2.1.1 Political

On October 23, 2005, the President of the United States of America issued new Executive Order imposing sanctions against specifically identified individuals and entities in Zimbabwe (www.treasury.gov). This Executive Order is administered by the U.S Treasury Department's Office of Foreign Assets Control (OFAC). On

7 July 2008 the OFAC expanded the list to include local financial institutions, namely Agribank, Infrastructure Development Bank of Zimbabwe and ZB Financial Holdings and its subsidiaries. The sanctions prohibit U.S persons, wherever located, or anyone in the United States from engaging in any transactions with the affected banking institutions, thereby closing doors to opportunities in international trade and American capital.

On another note, the signing of the Global Political Agreement in September 2008 brought in a new political dispensation in the form of a Government of National Unity (GNU) which carried high hopes for political stabilization for a country which had experienced violence that characterized the harmonized elections of the same year. The general expectations from the financial sector were that this development would bring in a new era of financial stability and a boost to investor confidence. However, as time progressed, it has become clear that there are worrying levels of political differences within the GNU leading to contradictory policy statements from the different parties. A case in point is the enforcement of the Indegenisation and Empowerment Act which has pitted the administering authority of the Act against both the Reserve Bank Governor and the Minister of Finance in as far as the banking sector is concerned. The Minister of Youth Development, Indegenisation and Empowerment insists that foreign banks are subject to the Act and should transfer the ownership of foreign owned shares to the local majority. On the other hand the Finance ministry feels that there are already enough indigenous players on the market and as such the sector should be treated differently; moreso considering the sensitivity of capital in the financial sector. A contagion effect will be felt across the whole banking sector if the foreign banks are disturbed and confidence in the whole system will be shaken.

1.2.1.2 Economic

According to the Zimbabwe Economic Outlook (2009), an immediate benefit expected from the decision to dollarize the economy was the elimination of hyperinflation as well as an anticipated upsurge in investment and trade. As

testimony of a much improved trading environment compared to prior year, the 2009 ZB Financial Holdings Annual Report states that year-on-year inflation to December 2009 receded by 7.7% whilst the economy is estimated to have grown by 5.7% in 2009 compared to a decline of 14.1% in 2008. The general price stability obtaining in the multi-currency environment resulted in improved planning processes as cost trends were now more predictable.

The biggest lesson for bankers in 2011, as observed by Hanke (2012) was that competing by lending out money to every entity/person perceived to be blue chip was not productive as many are now failing or are reluctant to pay leaving banks with weak liquidity positions. The tendency by banks to expose themselves to similar risks by making more or less similar bets with each bank's appetite for lending rising and falling in sync is termed "herding" in the field of behavioral finance. A defaulting client, as in the case of RioZim which borrowed, in 2011, a combined \$50 million from the local market, actually literally dictates the pace, telling the lender what it can and cannot do, while the bank suffers liquidity problems and becomes a subject of rumour mongering – as Dr. Mangudya of the Commercial Bank of Zimbabwe observed – to an extent of losing the deposits even of clients who owe them.

Meanwhile, it was disturbing to observe some of the problems that led to the banking crisis of 2004 lately resurfacing. Last year it was Renaissance (RMB) which had to be rescued by the RBZ after getting into trouble with its poor loan underwriting and in 2012 another three banks; Interfin, Genesis and Royal Bank where closed. Genesis and Royal Bank surrendered their banking licenses to the Reserve Bank whilst Interfin was placed under recuperative curatorship. Among the many anomalies raised by the RBZ against the concerned banks were accusations of "...concentrated shareholding and abuse of corporate structures, high level of non-performing insider and related party exposures (loans)..."(RBZ Press Release,2012) - the same issues which were observed at RMB and at all the banks that failed in the 2003/4 financial crisis.

1.2.1.3 Social

Faced with a lack of employment opportunities in the formal sector, Zimbabweans have displayed great ingenuity to create jobs for themselves as carpenters, street-vendors, cross-border traders, sculptors or brick-moulders etc. However, most of these informal businesses do not operate banking accounts and neither do the majority of their workers. According to the Zimbabwe Economic Policy Analysis and Research Unit (Zeparu) in 2011, about US\$2.5billion was circulating outside the formal banking sector whilst deposits in the banking system were estimated at US\$2.6billion.

Other social aspects that have affected the banking industry include the HIV pandemic which has adversely affected the economically active age group, who ordinarily should contribute to the depositor base. Brain drain has also been noted to have had negative effects in the sense that a good number of skilled manpower has left the country in search of greener pastures, thereby further depleting the depositor base for the financial sector.

1.2.1.4 Technological

The banking sector has introduced a number of technologically driven products such as internet and mobile banking in an effort to improve convenience to existing customers as well as to tap into the unbanked population. Econet in conjunction with TN Bank introduced EcoCash whilst ZB Bank has the E-wallet account as their mobile banking products. Almost every other financial institution in conjunction with all three mobile operators has a mobile banking product of some sort.

However, these products also come with their challenges. According to a study by Dube et al (2011), lower accessibility, unaffordability by customers and security concerns were found to be the most prevalent challenges with Internet banking and PC banking in Zimbabwe. ATMs had lower levels of customer convenience as their greatest challenge while telephone banking faced the biggest challenge of poor acceptance and usage by customers. As for the main

challenges of SMS banking like network coverage limitations, solutions to the problem are at an advanced stage , as some operators in Zimbabwe have launched the 3G network, GSM roaming and Interactive Voice Response facilities. Such services boost the accessibility and user friendliness of SMS banking and hence its adoption by both banking institutions and customers. This has the potential of increasing its usage by customers.

1.2.1.5 Legal

The operations of banking institutions in Zimbabwe are governed by the Banking Act [Chapter 24:20]. This Act is divided into eight parts with each part dealing with specific areas such as defining what constitutes an accepting house, through to the roles of administering officers and such issues as the conduct of business by banking institutions. The Ministry of Finance has advised that amendments to the Banking Act to improve the legal and regulatory framework of the financial sector would be concluded in the second half of the year 2012. According to the responsible minister, the amendments had been necessitated by the need for measures to deal specifically with challenges faced by banks. The amendments are reported to include clauses to compel banks to pay interest on deposits and set limits on interest rates to be charged on loans. The proposed law will also regulate bank charges as part of measures to boost deposits .

(Ministry of Finance website, 2012).

1.2.1.6 Ecological

In the developed world, mainstream banks are under pressure from ecological pressure groups to put people and the planet first. These pressure groups advocate for customers to ask their bankers such questions as how they are investing their money and what impact they have on the wider world. As far as these ecology advocacy groups are concerned, financial success and sustainable development do not have to work in opposition. This level of ecological awareness and advocacy has not yet reached the Zimbabwean financial sector but it is worth noting that a group of engaged customers can have a real impact on how a banking business operates.

1.2.2 Background of ZB Financial Holdings

According to the information on www.zb.co.zw, listed on the Zimbabwe Stock Exchange, ZB Financial Holdings Limited (ZBFH) is a diversified financial institution and a holding entity for a group of companies, which have been providing commercial and merchant banking and other financial services beginning 1951. By 1961, there were nine branches operating countrywide. In August that same year, the company was sold to the Netherlands Bank of Rhodesia and it maintained a steady growth through acquisitions of related companies as well as expansion of existing operations. In 1972, the company changed its name from The Netherlands Bank of Rhodesia Limited to Rhodesia Banking Corporation Limited and then to Rhobank in 1979. It changed its name once again in 1981 to Zimbabwe Banking Corporation after the Government purchased the majority shareholding.

In 1989, the directors of the company undertook a restructuring exercise with the objective of bringing all subsidiaries and associates under one investment and holding company, Zimbabwe Financial Holdings Limited (Finhold). The restructuring allowed the Bank to concentrate exclusively on providing commercial banking services to the public. The new holding company was ideally placed to explore other profitable business activities, which were not previously possible because of restrictions placed on the investment activities of the Bank in terms of the Banking Act.

The acquisition of a number of subsidiaries over the years allowed the Group to offer a wide range of services which include commercial and merchant banking, hire purchase and leasing as well as trust and executor services. On October 30 2006, the Group adopted a new monolithic brand and formally changed its name to ZB Financial Holdings Limited. This change was also meant to coincide with the merger with former Intermarket Holdings units, namely(Intermarket Bank, Intermarket Building Society, Intermarket Reinsurance, Intermarket Life and Intermarket Bank Zambia), which units have since adopted the ZB brand.

The ZBFH group has within its ambit, a commercial bank, a building society, a life assurance company, a re-insurance company, an asset management company and a stock broking firm. ZB Bank is the flagship operation of ZB Financial Holdings Limited and comprises commercial banking and investment banking arms. The bank offers such products and services as international banking, consumer banking, credit services, treasury and investments.

1.2.2.1 The Board of Directors

The current Board of Directors has two executive directors and five non-executive directors. The Board Chairman is a non-executive director. The roles of the Chairman and the Group Chief Executive are separate. Effective control is exercised through the Group Executive Committee, the Group Chief Executive, the Managing Directors of subsidiary companies and the respective company executive directors who are accountable through regular reports to the Board. The non-executive directors have the skill and experience to bring unrestrained judgment to bear on all corporate issues.

1.2.2.2 The Current Risk Management and Control Framework at ZB Bank

The ZB Financial Holdings Group Risk Management Policy Guidelines of 2011 lay the framework for the Bank's risk management strategy in the following manner:

1.2.2.2.1 Capital risk management

The primary objectives in managing capital at the bank are:

- To guarantee the ability of the bank to continue as a going concern whilst providing an equitable return to the Group's shareholders and benefit to customers and other stakeholders.
- To maintain a strong fall-back position which is commensurate with the level of risk undertaken by the bank in the normal course of business.
- To comply with the regulatory capital requirements as prescribed by relevant authorities.

The bank's capital consists of equity attributable to the shareholders, comprising the issued share capital, reserves, retained income and debt, which includes

direct loans plus the residual funding from deposit taking activities after deducting the associated liquid or near-liquid assets. The bank's operating target is to maintain operating assets at a level that is higher than the available operating funds at all times in order to restrict recourse on shareholders' equity for operational funding.

1.2.2.2.2 Financial risk management

The bank maintains active trading positions in a variety of non-derivative financial instruments in anticipation of customer demand. The bank manages its trading activities by type of risk involved and on the basis of the categories of trading instruments held. Regular feedback on risk related matters is provided to the Board through the Board Risk Committee. The bank defines financial risk collectively to include liquidity risk, market risk and credit risk.

1.2.2.2.2.1 Liquidity risk

Liquidity risk arises in the general funding of the bank's activities and in the management of positions. It includes the risk of being unable to fund liabilities at appropriate maturities and rates and the risk of being unable to liquidate an asset at a reasonable price and in an appropriate time frame (Adair, 2006,p.14). This risk is identified by the bank through gap and maturity analyses. Liquidity risk is measured using the gap analysis techniques and the term structure of assets and liabilities. Liquidity risk is managed by the bank's Treasury department in consultation with the Assets and Liabilities Management Committee (ALCO).

1.2.2.2.2.2 Market risk

According to Jurion (2002), market risk arises from adverse movements in the market place which cause interest rate, foreign exchange rate and equity price fluctuations in the markets in which the bank operates.

- *Interest rate risk*

The bank's operations are subject to the risk of interest rate fluctuations to the extent interest-earning assets and interest bearing liabilities mature or reprice at different times or in differing amounts. Risk management activities are aimed at

optimizing net interest income, given market interest rate levels consistent with the bank's business strategies.

- *Foreign exchange risk*

Foreign exchange risk is the risk that arises from adverse changes in foreign exchange rates and emanates from a mismatch between foreign currency inflows and outflows. The risk is identified through the analysis of the bank's open foreign exchange positions. The risk is managed through ALCO directives, compliance with the requirements of the Reserve Bank of Zimbabwe and market analysis techniques.

- *Equity price risk*

Equity price risk, according to Adair (2006) is the possibility that equity prices will fluctuate affecting the fair value of equity investments that derive their value from a particular equity investment or index of equity prices. The risk is not at the bank level but is faced by the holding company. The ZB Group tracks the performance of all its equity investments using the price lists issued by members of the Zimbabwe Stock Exchange. Based on the price lists from the members of the Zimbabwe Stock Exchange, the Group quantifies the risk. Equity price risk is assessed as medium since the Group's portfolio is well diversified. The Group manages its exposure to equity price risk by maintaining a diversified portfolio.

- *Credit risk*

Credit risk is the risk that a counter party will not honour its obligations to the bank as and when they become due. The risk is measured through assessing the risk of default using a credit risk-rating matrix. Before granting facilities to a prospective customer, the bank uses a credit risk scoring system. Bad credit risks are identified through the low points scored and the proposals are declined at that juncture. Subsequent to granting facilities, the bank regularly reviews facilities, and in instances where problems have been experienced, the facilities are downgraded.

1.2.2.2.3 Operational Risk Management

Operational risk is inherent in all business activities and this is the potential of loss arising from deficiencies in internal control systems, poor operational standards, errors and deliberate acts of fraud and collusion to override internal control systems. The Board Audit Committee, through the medium of the internal audit function, assesses the efficacy of the internal accounting controls and makes recommendations for improvement to the Board of Directors.

1.2.2.2.4 Legal, reputational and compliance risks

Legal risk is the risk that the bank can be involved in litigation resulting in loss of money and/or impaired reputation. Compliance risk refers to the risk of failure to comply with material rules, regulations and laws. At group level, the organisation has a dedicated team of compliance officers to monitor this risk.

1.2.2.2.5 Technological risk

This includes innovation, or the lack thereof, obsolescence, explosions and dependability of the technological platform. An Information Technology Committee which reviews developments and proposes enhancements to the technological platform is in place. The bank also has Business Continuity Plans (BCP) and Disaster Recovery Plans (DRP) and these are tested and maintained up to date. Access to computer systems is restricted to authorized personnel through a hierarchy of authority levels.

1.2.2.2.6 Solvency risk

Solvency risk is the risk that the bank may incur liabilities that are far in excess of its ability to pay leading to financial distress. The bank strictly monitors the assets and liabilities and has set limits to the liabilities that can be incurred and the placements arising therefrom.

1.2 Statement of the Problem

The Reserve Bank of Zimbabwe conducts regular offsite and onsite examinations of the institutions that it regulates. The last on-site examination of ZB Bank was concluded on the 21st of October, 2009, using data as at 30 September 2009. ZB

Bank Limited was assessed using the CAMELS (acronym for **C**apital adequacy, **A**sset quality, **M**anagement, **E**arnings, **L**iquidity and **S**ensitivity to market risks) model which focuses on the evaluation and rating of its managerial and financial condition. The bank was rated moderate indicating that management of risk was largely effective but lacking to some modest degree. It is now necessary to carry out another evaluation of these strategies to check if there has been an improvement or deterioration since the last assessment.

Also the environment in which the bank operates has had considerable challenges of late. Financial distress has afflicted numerous local banks, many of which have been closed down by the regulatory authorities or have been restructured under their supervision. Moreover, default risk on credit facilities extended by the local financial sector assumed an upward profile as businesses struggled to cope with the exigencies of the multi-currency trading regime. It therefore, stands to reason that a thorough scrutiny of the risk management strategies being employed by ZB Bank should be carried out with the aim of ascertaining their adequacy and effectiveness.

1.3 Research Objectives

This research seeks to achieve the following objectives:

1. To determine the status of the current risk management strategies being implemented at ZB Bank
2. To determine whether these risk management strategies affect the performance of the Bank
3. To determine whether the current risk management strategies are creating value for the shareholders of ZB Bank.
4. To come up with an overall evaluation of the competence of the bank's risk management strategies

1.4 Research Questions

This research seeks to answer the following questions;

- (i) What risk management strategies are ZB Bank currently implementing?
- (ii) Are these strategies contributing to the performance of the Bank?
- (iii) Are shareholders of ZB Bank benefiting from the risk management strategies being employed by the bank?
- (iv) Does the bank have competent risk management strategies?

1.5 Research Proposition

“Local banks are not employing adequate risk management strategies to prevent financial distress as well as to enhance shareholder value.”

1.6 Justification of Research

The local banks can make a potentially valuable contribution to the development of financial markets in Zimbabwe, especially by improving access to loans for the domestic small and medium scale business sector. They can also inject much needed competition into financial markets and offer customers better services. However, they need to be financially stable to achieve these noble objectives. The concept of risk management is central in today's management of financial institutions because it determines whether a bank will survive and maximize shareholder value. The case of ZB Bank will highlight the typical risk management strategies that a local banking firm employs and it is necessary to measure the adequacy of these strategies.

The senior management of ZB Bank can benefit from an in-depth study of their systems to improve their risk management strategies for the better performance of their company. It is also hoped that the final document will stimulate further debate on the benefits of risk management for the different categories of financial institutions in Zimbabwe.

1.7 Scope of Research

In pursuing this research study, the focus of attention is on ZB Bank as a case study. Reference will be made to other players in the Zimbabwean financial sector but only for the purposes of drawing comparisons.

1.8 Research Limitations

In-depth financial information on the organisation's risk management strategies is deemed confidential and this could compromise the quality of the research findings in certain areas. Moreover, financial data will be limited to three years because that is when the economy dollarized and the business environment somewhat stabilized. The Zimbabwe dollar figures would be unreliable as they were hugely distorted by the hyperinflation. The intended key informant interviews require the researcher to secure appointments with senior management of the bank which is not easy due to their busy schedules. The researcher will use his networks with senior ZB Bank officials to gain access to the relevant offices. The inherent reluctance by respondents to timeously attend to the questionnaires will be surmounted through regular follow up telephonically, via e-mail and physical visits to their offices. The aforesaid limitations will not influence the validity of the study nor will they negate the practical applications that will be recommended.

1.9 Ethical Issues

As part of ethical considerations, the researcher will seek the indulgence of senior management of ZB Bank to carry out his research within the bank. An undertaking by the researcher is needed that all data availed to him would be treated in confidence and the research findings are strictly for academic purposes. The researcher will also seek consent from the respondents before disseminating questionnaires.

1.10 Dissertation Outline

The first chapter is made up of the introduction and background information to the study. Subsequent material is structured into chapters arranged and detailed as follows:

Chapter Two: Literature Review - provides a comprehensive review of the discussions written by different authors on the subject matter.

Chapter Three: Research Methodology - details various research methods and justification for the strategy used by the researcher. The limitations faced by the researcher are also discussed in the chapter.

Chapter Four: Results and Discussion - presents the research findings and makes comparisons to work done by other researchers.

Chapter Five: Conclusions and Recommendations - draws conclusions on the findings of the research and makes appropriate recommendations. Areas of further research are proposed in the same chapter.

1.11 Chapter Summary

This chapter introduced the topic and background information to the study. The background of the current risk management framework of the case organization (i.e. ZB Bank) is presented to arrive at the research problem. Research objectives, questions and justification of the study are also highlighted in the chapter together with the research limitations.

CHAPTER TWO

2.0 Literature Review

2.1 Introduction

A major aim of academic research is to search for innovations in the existing understanding of the world or in making it a better place to live in. Epistemic innovations are seldom born out of the blue nor are they purely traits of individuals (Kaufer and Geisler, 2009, p.43). They are regulated by disciplinary norms and necessarily flow from knowledge of the past. Hence the purpose of literature review, according to Kaufer and Geisler (2009), is to discuss the theoretical underpinnings in the subject matter under research. Evaluations of prior scholarship play a crucial role in the literature review of a research article by showing how the boundary of an area of inquiry can be further advanced by the writer's work. It acknowledges prior work done by other researchers and publishers in the chosen field. In a research text, the dual-process of creating newness is most manifest in its introduction and literature review, where a writer synthesizes a network of accepted scholarship to establish intricate connections of his/her work to that of predecessors, while at the same time evaluating and creating new takes on the latter in order to justify and inform the writer's own study (Berkenkotter and Huckin, 1995).

Leedy (1980) further highlights that the more one knows about the peripheral investigations relevant to one's study, the more intelligently one can approach the problems inherent in one's own area of investigation. This researcher will review literature on the subject of risk management, covering its definition, evolution and categorization. The chapter will also focus on the various risk management models used in modern banks. Further, the chapter will look at empirical evidence on previous studies that investigated risk management strategies with particular reference to the effects of poor risk management on bank performance. The end of the chapter will be on the aspect of bank supervision to instill risk management.

2.2 Definition of Risk

The Oxford English Dictionary defines risk as, “(Exposure to) the possibility of loss, injury, or other adverse or unwelcome circumstance; a chance or situation involving such a possibility.” On the other hand, Lupton (2009) defines risk as the potential that a chosen action or activity (including the choice of inaction) will lead to a loss (an undesirable outcome). The notion implies that a choice having an influence on the outcome exists (or existed). Meanwhile, ISO 31000 defines risk as the effect of uncertainty on objectives. It is measured in terms of consequence and likelihood. Furthermore, the Australian Standard 4360(1995) cited by Frost, Allen, Porter and Bloodworth (2001), defines risk as the chance of something happening that will have a negative impact on objectives.

Risk is often mapped to the probability of some event which is seen as undesirable. Usually the probability of that event and some assessment of its expected harm must be combined into a believable scenario (an outcome) which combines the set of risk, regret and reward probabilities into an expected value for that outcome (Raghavan, 2003). Mainelli (2002), as quoted by www.investopedia.com defines risk from an investment perspective whereby “risk is defined as the chance that an investment’s actual return will be different than expected” (para.1). Thus risk includes the possibility of losing some or all of the original investment (ibid). Meanwhile, Diamond et al (2010) define risk as the quantifiable likelihood of loss or less-than-expected returns.

A fundamental idea in finance, according to Thompson (2005), is the relationship between risk and return. The greater the amount of risk that an investor is willing to take on, the greater the potential return. The reason for this is that investors need to be compensated for taking on additional risk. Examples of the different types of risk are: currency risk, inflation risk, country risk, economic risk, liquidity risk, market risk, income risk, interest rate risk, prepayment risk, credit risk, unsystematic risk, call risk, business risk, counterparty risk, purchasing power risk and event risk.

2.3 Definition of Risk Management

On the other hand, risk management is a process for identifying, assessing, and prioritizing risks of different kinds. Once the risks are identified, the risk manager will create a plan to minimize or eliminate the impact of negative events (Holme, 2008). Alternatively, as put across by Akendele (2012), risk management is the process by which managers satisfy their needs by identifying key risks, obtaining consistently understandable, operational risk measures, choosing which risks to reduce and which to increase and by what means, and establishing procedures to monitor the resulting risk position.

From an investment perspective, risk management is defined by www.answers.com (2012) as:

The process of identification, analysis and either acceptance or mitigation of uncertainty in investment decision-making. Essentially risk management occurs anytime an investor or fund manager analyzes and attempts to quantify the potential for losses in an investment and then takes the appropriate action (or inaction) given their investment objectives and risk tolerance. (para.1)

Robert (2002) defines risk management as, “a two-step process - determining what risks exist in an investment and then handling those risks in a way best-suited to your investment.”(p.174) Jing (2010) expounds further by stating that risk management occurs ubiquitously in the financial world. For instance, it occurs when an investor buys low-risk government bonds over more risky corporate debt or alternatively, when a fund manager hedges their currency exposure with currency derivatives and also when a bank performs a credit check on an individual before issuing them a personal line of credit. Hampton (2009) warns that poor risk management can lead to severe costs for individuals as well as companies. Alternatively, the acceptance of disproportionately high risk can have significant impacts on the business. The idea behind using risk management practices is to protect businesses from being vulnerable (Hampton,

2009). Many business risk management plans may focus on keeping the company viable and reducing financial risks.

In another curious perspective, Hampton (2009) further expounds risk management practices to include preserving the physical facilities, data, records, and physical assets a company owns or uses. Therefore, following on this argument, then risk management is also designed to protect the employees, customers, and general public from negative events like fires or acts of terrorism that may affect them. Having a risk management plan is an important part of maintaining a successful and responsible company. It will help to protect people as well as physical and financial assets.

2.4 Origins of Risk Management

According to Kim and Santomero (2008), the term *risk management* is a recent creation, but the actual practice of risk management is as old as civilization itself. The idea of risk appears to have taken hold in the 16th and 17th centuries, and was first coined by Western explorers as they set off on their voyages to explore the world. Raghavan (2003) digs into the etymology of the word “risk” and traces back to Homer’s works in ancient Greek writings meaning “*root, stone, cut from firm land*”, and was later used in Latin for “*cliff*”. English borrowed the term from German and Italian and both were backed up by the French word, “*risque*” of the 18th century. Dictionaries confirm that it was a metaphor for “*difficulty to avoid at sea*”.

It can be seen from the above, that the term originally had a concrete orientation towards space – cliffs, stones or land. Later, Raghavan (2003) explains its use became abstract and transferred to time – dare, undertake – as used also for financial and insurance instruments – meaning estimation of the probable consequences of investment decisions. It subsequently came to refer to a wide range of other situations involving uncertainty. As we today talk about the new risk reality, where any deviation from the optimum solution or process is

described as a risk or expected loss, the ancient word has taken on today's complex issues.

2.5 Risk Categorization

Today's fast-paced business environment bombards organizations with a diverse array of risk events. If auditors are expected to identify the organization's major risks, they need powerful diagnostic tools (Raghavan, 2003). Meanwhile, Tchankova (2002) goes on to state that most traditional audit risk assessment models are too narrowly focused to encompass the full range of business risks. The diverse nature of these risks also create measurement problems, because it is often difficult, or impractical, to quantify their dollar impact. According to Lam (2003), successful risk categorization helps to identify the organization's risks; and to pull together risk information in a concise profile that helps users understand and monitor identified exposures.

The Western Australian Government Guidelines in risk management of August 2011 offers a useful approach to help identify any common causes of risks across different areas of an organization which is to categorize the risks by "*source of risk*". This facilitates the reporting and management of those systemic issues allowing common causes to be managed with agency-wide controls or treatments, rather than at an area or department level. Examples of sources of risk are:

(i) People

People are a source of risk where there is failure of staff to comply with the procedures whether with the intention to commit fraud, oversight or negligence. There could be non-familiarity of staff with the set guidelines and procedures. Also when the segregation on access to the computer system is not observed or compromising on the staff password then the people involved become the source of risk.

(ii) Process

Risk arises as a consequence of process failure resulting in the set objectives not being met. Inadequate controls in the operational processes are another source of process risk.

(iii) System

The risk comes about due to the failure of application system to meet user requirements. Also the absence of in-built control measures in the application system is a source of risk.

(iv) External Party / Event

Imposition/changes of policies by government regulatory bodies are major sources of external party risk. Also included in this category is the unsatisfactory/non-performance by out-sourced service providers. Fraud by syndicates or customers is another source of external party risk, as well as legal action taken by customers due to Bank's negligence or fraud committed by internal staff

Another way to categorize risks (according to the Western Australian Government Guidelines of 2011) is by "*impact range*". The impact range is a classification hierarchy which indicates how wide the consequences of the risk will reach, within the agency and beyond i.e. could the risk impact a specific division/department, the whole agency, or even the whole of the State? Impact Range descriptors include: state-wide, agency-wide, metro-wide, and division-wide.

The guidelines also look at "*project risks*" as a separate risk category. Project risks are unique to each project and are identified at various stages of the project life cycle. Risks evolve through each of these stages, for example from its conception, design through to completion and handover and it is important that these be captured and monitored to ensure project success. Contracts are a key component of most projects. Contracts not only represent a formalized

agreement between the principle and contractor they also include risks identified throughout the projects life cycle. These risks go towards informing the contract's terms and conditions. Hence it is critical that a thorough risk assessment be conducted prior to contract formation to ensure, where appropriate, risks are managed within the contract.

2.6 Types of Risk

There are two fundamental basic types of risk according to Lupton (2009):

- *Systematic Risk* - it is also known as market risk or economic risk or non diversifiable risk and it influences a wide range of assets. "A significant political event, for example, could affect several of the assets in your portfolio. It is virtually impossible to protect yourself against this type of risk" (www.investopedia.com, 2012, para11).

- *Unsystematic Risk* - is also known as specific risk. Its effects are generally confined to a small number of assets. "An example is news that affects a specific stock such as a sudden strike by employees. Diversification is the only way to protect oneself from unsystematic risk" (www.investopedia.com, 2012, para12).

2.6.1 Risk in Financial Investments

The following are the more specific types of risk particularly associated with investments in bonds and stocks. The list is not exhaustive but gives a snapshot of the more common ones as discussed by Quinn (2005) in a citing by www.investopedia.com (2012):

Credit or Default Risk – "is the risk that a company or individual will be unable to pay the contractual interest or principal on its debt obligations" (para.7). Investors who hold bonds in their portfolios are particularly concerned by this type of risk. This explains why Government bonds issued by the federal government, have the least amount of default risk and the lowest returns, whilst corporate bonds tend to have the highest amount of default risk but compensate through higher

interest rates. In investment language, bonds with a lower chance of default are considered to be investment grade, whilst bonds with higher chances are considered to be junk bonds.

Country Risk – is experienced when a country is not able to honor its financial commitments. “When a country defaults on its obligations, this can harm the performance of all other financial instruments in that country as well as other countries it has relations with” (www.investopedia.com, 2012, para.5). Country risk is experienced in the stocks, bonds, mutual funds, options and futures that are issued within a particular country. This type of risk is often observed in emerging markets or countries that have a severe deficit (ibid).

Foreign-Exchange Risk - currency exchange rates can change the price of the asset and need to be taken into consideration when investing in foreign countries. “Foreign-exchange risk applies to all financial instruments that are in a currency other than your domestic currency” (www.investopedia.com, 2012, para.6). for example, an American resident who invests in some Canadian stock in Canadian dollars, even if the share value appreciates, may lose money if the Canadian dollar depreciates in relation to the American dollar (ibid).

Interest Rate Risk –“is the risk that an investment's value will change as a result of a change in interest rates” (www.investopedia.com, 2012, para.8). This risk is pronounced in the value of bonds more directly than stocks.

Political Risk – “represents the financial risk that a country's government will suddenly change its policies” (www.investopedia.com, 2012, para.9). This is a major reason for the lack of foreign investment in developing countries.

Market Risk - This is the most familiar of all risks and is also referred to as volatility (ibid). Market risks are the daily movements in a stock's price. It applies mainly to stocks and options. Stocks tend to perform well during a bull market and poorly during a bear market.

On a related note, "volatility is a measure of risk because it refers to the behavior, or "temperament", of your investment rather than the reason for this behavior" (www.investopedia.com, 2012, para.10). Volatility is essential for returns because market movement is the reason why people can make money from stocks. The more unstable the investment the more chance there is that it will experience a dramatic change in either direction (ibid).

2.7 Risk Management in Banks

According to Chorafas (1995), banks take risks not only because they deal with financial instruments (which inherently contain some elements of exposure with counterparties which may prove to be unreliable), but also because they carry out maturity transformation by taking demand deposits, savings and time deposits and issuing longer term credit. Diamond and Rajan (2001) further argue that risk management is important in banks more than in other corporations because they are financed by deposits, which are a liability to the bank and, in the event of a bank run, depositors will immediately call on their claims whilst the bank's illiquid assets would have to be liquidated at a significant loss to the bank. Moreover, as stated by Thompson (2005), market deregulation, growth in global trade, and continuing technological developments have revolutionized the financial marketplace.

Yunfeng et al (2008) trace the development history of commercial bank risk management and sum up into following 5 phases:

The first phase is the time before 1960's, when the commercial bank risk management mainly focused on the risk management of asset operation and liquidity keeping of bank assets. The second phase is the time between 1960's and 1970's. During this period, commercial banks emphasized on borrowing capital to keep or increase asset revenue to scale, which created conditions for banks expanding operations, but also increased bank operation risk. For the change of principal operation of bank development, the key point of bank risk

management was transferred from original asset operation risk management to debt risk management.

The third phase, according to Yunfeng et al (2008) is the time between 1970's and 1980's. During this time period, the international market interest rate fluctuated greatly, which caused the unsuitability of single asset risk management or debt risk management. The asset-debt risk management theory was generated, focusing on the coordinated management of asset operation and debt operation. In this phase some relevant financial derived tools appeared and developed to some extent. The former risk management technologies mainly include debt operation management, asset operation management, asset-debt integrated management and gap management. From the option pricing model presented by Black—Schole—Merton in 1973, the real quantitative risk management has started to develop on the basis of these theoretical models.

Yunfeng et al (2008) describe the fourth phase as the time of 1980's, with a new promotion in the concept and technology of bank risk management and a deeper understanding on risk. Moreover, the changes of market environment, including the fierce competition in bank industry, small interest difference between deposit and loan and the expansive use of derived financial tools, presented the restrictions existing in the original asset-debt risk management theory. Under this situation, a series of thoughts and technologies of off-balance sheet risk management theory, financial engineering, have been gradually used in commercial bank risk management. It further enlarged the commercial bank operation range by applying applied mathematics, informatics, engineering to risk management, which deepened the implication of risk management as management science. In the beginning of this phase, because of the influence from global debt crisis, banks started to focus on the prevention and management of credit risk. In 1988, "Basel Capital Accord" came out officially and kept being completed. This Agreement quantifies risk by regulating different weights for different types of assets, and thus regulates capital allocation. It is the

milestone of modern risk management, and the way of analyzing and controlling risk by centering capital adequacy ratio has become the basis of modern bank risk management, which means the further completion and unification of commercial bank risk management and financial supervision theory, as well as the basic formation of a comparatively complete risk management principle system in international bank field.

The fifth phase, as opined by Yunfeng et al (2008), is the time of over 20 years after 1980's. The gross economic value of the world grows rapidly and economic mode develops greatly, which causes the fast expansion of operation types and scales of commercial banks as well as the great development of risk management mode and content of international bank industry. With the fierce competition in financial field, financial innovation made bank operation more diversified and complicate, which raised new requirements for bank risk management. In addition, the occurrence of a series of bank crisis made the bank industry know that the loss was no longer caused by single risk. Almost the theory and practice achievements of commercial bank risk management of this phase were all included in "New Basel Capital Accord". Basel committee publicized the suggested drafts in June of 1999 and in 2001 representatively, and passed the final draft of "New Basel Capital Accord" in June of 2004. The "New Basel Capital Accord" completely inherits the supervision principles represented by Basel Capital Accord of 1988 and continues on centering capital adequacy ratio and focusing on credit risk control. But it starts to transfer from single capital adequacy restriction to the three combined restrictions of minimum capital requirement, supervision and investigation and market principle regulations in bank risk supervision and management. Basel Capital Accord attempts to make the bank competition become the competition of bank risk management abilities, with the content of risk recognition, measurement, assessment, control and risk culture.

2.7.1. The Risk Management Approaches for Banks

There are three typical commercial bank risk management methods that are discussed by Fabian (2010): value at risk (VaR), Total Risk Management (TRM) and Enterprise-Wide Risk Management (ERM).

2.7.1.1 VAR (*Value at Risk*)

This method, under normal market condition and within a given confidence interval, is used to estimate and measure the market risk and possible maximum potential value loss of any financial asset or securities portfolio in a given time period. The risk management method system based on this measurement method is to meet a risk management requirement of measuring the all risks faced by financial institutions or portfolios by a quantitative standard. JP-Morgan Company first suggested this method. Because of its scientific, practical, accurate and integrative features, it is well received commonly in the international financial field including supervision departments, and soon becomes one of the risk management standards. Comparing with traditional risk measurement technologies, such as due time method, sustained scheduled time method and indentation analysis method; it is more scientific and applicable.

However, Gideon et al (2007) argue that, VaR has an obvious restriction that it can only measure market risks under normal condition, and it cannot quantify sudden risk, credit risk, operation risk, legal risk and strategic risk. The VaR risk calculation method of financial asset or portfolio is to forecast the price fluctuation and correlation by means of statistical analysis based on the revenue characteristics in the past. However, history data cannot always be a good guidance for future trend. At present, back testing is used for checking the validity of VaR model, while pressure test and scene analysis are also used to cover its deficiency.

Meanwhile, Yunfeng et al (2008) argue that Value at risk (VAR) is the most attractive one among all risk measurement methods. They state that in the past

few years, many banks and law constitutors started to consider it as a criterion on risk measurement in the whole industry. It features with that it sums up the risk of all asset portfolios banks into a simple number, and uses currency unit to show the core of risk management—potential loss. The VAR is actually supposed to indicate the maximal loss in next stage of bank investment portfolios under the condition of a given probability.

2.7.1.1.1 Modifications to Calculation of VAR

- Risk-adjusted return on capital (Raroc).

Fabian (2010) defines Raroc as the ratio of return and potential loss or VAR value. Fabian (2010) also explains that the banks that use this method make the decision of capital use based on the present value of profit with the capital investment risk, instead of the absolute level of profit. Every bank knows the relationship between risk and return. In an investment, the greater the risk is, the bigger the expected profit or loss is. If a loss occurs to an investment, it will corrode bank capital, even lead to bankruptcy. Though banks are sensitive to capital corrosion caused by investment loss, they must realize the purpose to take this risk is to earn profit. The key to this problem is to find a proper balance point between risk and return, which is also the principle of Raroc. Raroc depends on the amount of potential loss, i.e. risk value, the bigger which is, the bigger the present value of investment return.

- Credit Metrics

Yunfeng et al (2008) proclaim that in 1997, American J.P.-Morgan Corporate other international banks --- Deutsche Morgan Grenfell, Bank of America, Bank of Switzerland, Union Bank of Switzerland and BZW jointly promoted the first securities portfolio model in the world only for bank credit loan risk evaluation (Credit Metrics). Based on the credit rating, this model calculates the probability of default of a loan or a group of loans, and then calculates the probability that loans above transfer to be bad debt at the same time. It attempts to indicate the bank capital reserve value necessary for the condition that some or whole credit loan portfolio is facing the risk of credit rating change or default by calculating

VAR value. The model almost covers all the credit loan products, including traditional commercial loan, letter of credit and letter of honor, securities with fixed return, commercial contracts as trade credit loan and receivables, as well as market-driven credit loan products including swap contract, future contract and other derivative products.

- Stressing test method

Yunfeng et al (2008) further explain that the VAR calculation is based on stability and continuity, and once great market and price fluctuation occurs, the effectiveness of the model will be weakened. However, the stressing test method can calculate the VAR value under extreme circumstance by means of historical simulation, which is an important supplementary tool.

2.7.1.2 Total Risk Management (TRM)

Fabian (2010) defines Total Risk Management, on the basis of single variable (i.e. Probability) in current risk management system, and introduces two other elements: price and preference, attempting to achieve the equilibrium optimization of objective computation and subjective preference of risk management in 3P system. TRM system can not only manage the basic financial tool risk, but also manage the possible risk of derivative tools, and thus realize the complete control of risk, opening up a new way for financial risk management. TRM method overcomes the basic weakness of financial risk management technologies including VaR, and makes systematic and dynamic decisions by combining three key elements of price, probability and preference in financial risk management, and thus realizes the equilibrium of financial risk and risk preference, enabling investors to achieve maximal benefit at the risk they would like to take. More importantly, Yunfeng et al (2008) argue, it enables the institution principal composed of single decision-makers to take an optimized control over the risk in risk management, instead of suffering too much risk loss caused by any single decision-maker's activity.

However, Gideon et al (2007) highlight that TRM also has difficulties. The most important one is that there is no systematic method on deciding the risk preference of decision-makers, especially in deciding the risk preference of institution principal, which to some extent affects the actual application of this method.

2.7.1.3 Enterprise-Wide Risk Management (ERM)

During the 1990s, the risk management discipline extended to incorporate managing financial risks as well as those risks that associate with changing technology and Internet commerce (Franck, 2010). Meanwhile, Fabian (2010) explains that the core concept of ERM is to manage all business divisions with different levels and all risks with different kinds within the whole institution. Along with the development of banking, people realize that the risk of commercial banks is not single risk as credit risk or market risk anymore. Instead, it is a combination of all kinds of risks including credit risk and market risk.

Amaran et al (2009) develop this point further stating that the role of risk management has evolved even further to defend entire companies during periods of change and growth. With the growth of a business, they go through swift changes in nearly every aspect of their operations, be it production, marketing, distribution, or human resources. It has been noted that this rapid change can expose the business to increased risk. The financial crises of the past have urged people to focus on integrated model of market risk and credit risk and the quantification of operation risk.

Thus, according to Fabian (2010), ERM model drew people's attention, and there came out the various new models integrating market risk, credit risk and other risks. ERM system requires risk management system not only to deal with market or credit risk, but also to handle other risks. Furthermore, Gideon et al (2007) argue, ERM requires risk management system to deal with all kinds of financial assets and asset portfolios related to these risks, as well as various business units that carry these risks. ERM thus makes every employee have a

consistent and unified understanding of risk policy and management system, to ensure the continuity and consistency of data, measurement and control.

However, some authors like Franck (2010) as quoted by www.answers.com (2012) have the understanding that, “the main focus of enterprise risk management is to establish a culture of risk management throughout a company to handle the risks associated with growth and a rapidly changing business environment” (para.4). Tongson (2008) agrees with the various approaches to the concept and recommends that business owners take these steps in implementing an enterprise wide risk management program:

- incorporate risk management into the core values of the company,
- support those values with actions,
- conduct a risk analysis,
- implement specific strategies to reduce risk,
- develop monitoring systems to provide early warnings about potential risks, and perform periodic reviews of the program.

Yunfeng et al (2008) observe that the ERM system initiated by several largest USA banks and securities agencies is still in its primary stage, but it will become the standard risk management method of large-scale banks. The establishment of ERM system requires integration of business divisions, standardization of procedures, as well as a new system for promoting the centralized control and risk management. According to Fabian (2010), the ERM method is a revolution for risk management concept, for that it shows a new direction for bank risk management: personnel's talent is more important than risk model's quality.

2.7.2 The Current Status of Risk Management of World Advanced Banks

Yunfeng et al. (2008) analyse the current status of risk management in advanced commercial banks and come up with the following facets:

2.7.2.1 Risk Management Concept

The world advanced commercial banks have formed scientific risk management concept. They think that people should manage risk positively and initiatively, and get return by improving the risk management and control ability. From the nature, the goal of commercial banks is to gain the minimal profit within controllable risk. Schubert (2011) supports this view by empirical evidence that at present, the most senior decision-making board of many large banks have included risk management into their strategic development plan, and considered it as a part of bank internal management. Risk management has risen to the level of bank development plan, and the boards will be responsible for the establishment of risk management policies directly.

2.7.2.2 Risk Management Mechanism

According to Yunfeng et al (2008), world advanced banks are provided with a complete and effective risk management mechanism. It includes: risk recognition mechanisms for analyzing risk source and causes and distinguishing risk category and damage degree; risk alarm mechanism, mostly for risk alarming, risk information transmission and risk database establishment; risk decision-making mechanism for establishing and implementing risk management rules, making risk indicators and risk prevention strategies; risk prevention mechanism for carrying out risk prevention activities, reallocating and transferring risk, and then preparing the report on risk management evaluation.

2.7.2.3 Organization Setting

Further observations by Yunfeng et al (2011) are that modern advanced commercial banks have independent risk management departments, and risk management is becoming more regular and systemized. Corresponding to the risk management rising to the level of bank development plan, an internal risk management system is formed in modern banks, led by board and risk management committee, centering independent risk management department and being close to all operational departments. Modern risk management system focuses on the close contact and information communication between risk management department and all operational departments, as well as on the

independence of risk management department and its complete systematic feature of risk management. In support, Schubert (2011) highlights that the proper separation of risk management decision-making with operation decision-making changes the traditional management system that risk management decision-making was subjective to operation decision-making with profit as the primary goal.

Meanwhile, according to Schubert (2011), the risk management system centering independent risk management department is founded on the basis of management regularization and systemization, which further strengthens the risk management ability of commercial banks in complicate circumstances. For example, as observed by Yunfeng et al (2008), the likes of CITI and HSBC have set up special risk management committees under the boards. The CITI risk managers keep close relation with those of business department and functional departments, and their activities are throughout the whole process of bank's operation; the risk management of HSBC is the responsible of different operation departments, and the risks manager should carry out the risk management policies of own department on one hand, and coordinate and cooperate with other departments on the other hand, to maximize the performance of risk management.

The enterprise-wide risk management is emphasized by Schubert (2011). Being different from traditional risk management that focused on credit risk, modern bank risk management also pays attention to other risks, such as market risk, liquidity risk, operational risk and legal risk. It not only treats possible capital loss as risk, but also deems bank reputation and personnel loss as risk, for which the concept of reputation risk and personnel risk are put forward by Schubert (2011). Besides, with the trend of more and more internationalized operation, commercial banks pay more attention to the integrative measurement and management of the risk bearing in global range, to systematically prevent all possible adverse events from happening anywhere in the world.

2.7.2.4 Risk Management Culture

Further arguments from Yungfen et al (2008) are that modern commercial banks are nurturing risk management culture inside the banks. A mechanism focusing on both inspiration and penalty has been formed, to punish the people who are responsible for the loss of bank caused by default operation and neglect by responsible confirmation, and to provide effective inspiration to people who are professional and responsible, and effective in risk prevention and elimination. HSBC and CITI Bank, as cited by Yunfeng et al (2008), inspire senior risk managers with stock option, while DEUT and BOTK use career inspiration and material inspiration. This kind of risk management culture benefits the unification of risk management and bank operation as well as risk prevention and business exploration. It makes risk management not only guarantee the safety and profitability of bank assets but also promote the stability operation and development of bank business, preventing the phenomenon of what Yenfung et al (2008) term “supervision paradox”.

2.7.2.5 Risk Management Technology,

International advanced banks laid more and more emphasis on quantitative analysis, and risk management technology tends to be quantified with models and I.T (Yunfeng et al, 2008). They further opine that latest IT technology is adopted to set up information management system, and lots of mathematic statistic models are applied to identify, evaluate and monitor risks, and thus to realize the collection, transmission and coordination of risk information. It indicates the objectivity and scientific feature of risk management, and makes risk management decision making an activity combining artistic and scientific factors. For instance, Schubert (2011) cites Morgan Chase Bank, together with other advanced banks as Bank of America, Bank of Switzerland, as taking the lead of promoting Credit Metrics Model in 1997.

2.7.3 The Role of Risk Management in Financial Crisis

Attempts to find the causes of the global financial crisis and to address the urgent policy issues associated with it have often looked back in history to find the “common” factors that triggered previous financial crises. Díaz-Alejandro (1985), in an early contribution titled “Goodbye Financial Repression, Hello Financial Crash,” skillfully described the association between financial liberalization and financial crises based on his observations of the Latin American experience. Another literature survey by Arteta and Eichengreen (2002) revealed that the liberalization of the domestic financial sector will increase the likelihood of a banking crisis. However, there is no available evidence on the exact role that financial liberalization plays in the emergence of problems in the banking sector; it is not clear how much the increased risk to the banking sector is conditional on the shape or speed in which liberalization occurs, and, more importantly, what is indeed the chain of events that leads from liberalization to crises.

Meanwhile, Kaminsky and Reinhart (2007) have established that banking crises are often preceded by rapid expansion of credit to the private sector. Their measure of private credit includes lending to households and lending to firms. They contend that the composition of bank credit has changed substantially over time with an increasing share of household credit. Household credit now exceeds the volume of enterprise credit in many countries with potentially important consequences for the incidence of banking crises. A study by Berrak and Neven (2010) offers evidence that the expansion of household credit outpaced the expansion of enterprise credit in Iceland starting in the 1990s. In the two years before Iceland’s banking crisis in 2007, its household credit to GDP ratio increased from 75 to 155% (a 80 percentage points increase), whereas the business credit to GDP ratio increased by 27 percentage points.

The same study goes further to state that in the US, while the ratio of business credit to GDP was unchanged during the last 20 years, the household credit to GDP ratio expanded by about 2 percentage points each year after the 2001 recession. The UK had a similar experience to the US. Household credit to GDP

increased by 6 percentage points, whereas business credit stayed almost the same prior to crisis. According to Szyszka (2011) when the interest rates started growing and reached their highest level in 2006, many households faced problems with debt servicing. At first, the problem affected Americans with the lowest credit worthiness, who had nevertheless been granted risky mortgages. Financial institutions were even willing to lend to people who could not demonstrate permanent employment, regular income, or any material assets. Such persons were referred to as NINJA (No Income No Job or Assets). This situation was based on securing the loans on properties the prices of which had continued to grow during the previous years.

An inquiry was made by Reinhart and Rogoff (2009) immediately after the signs of the US subprime market collapse in late 2007. They found that post-war advanced economy banking crises share striking similarities in the run-up of GDP growth, asset prices, public debt and capital flows. Other analyses followed as the subprime crisis deepened in 2008 and similar systemic crises appeared in other countries (Roubini and Mihm, 2010). In a systemic banking crisis a country's corporate and financial sectors experience a large number of defaults and financial institutions and corporations face great difficulties repaying debts on time. As a result, non-performing loans increase sharply and all or most of the aggregate banking system capital is exhausted.

2.7.3.1 The Role of Risk Management in the Latest Global Financial Crisis

Szyszka (2011) notes that the crisis started in July 2007 with the collapse of two Bear Stearns hedge funds. With this collapse, as explained by Szyszka (2011), the so-called subprime mortgage crisis became apparent with a substantial increase in mortgage delinquencies and foreclosures in the United States. In the end, the property values began to fall, which also meant that the value of securities accepted by banks upon granting the loans was also decreasing. In case of a borrower's insolvency, banks could not fully recover the extended loans and had to write off reserves for bad or uncollectible debt.

To obtain the capital required to increase the lending, Kowalski and Shachmurove (2011) observe that banks very often borrowed money from other institutions or issued special securities based on the portfolio of the previously extended mortgages. At that point, they too were in danger of insolvency because borrowers found it difficult to repay their current installments and interest. Banks suddenly had trouble with servicing their own indebtedness which, to a large extent, was to be synchronized with the payments received from customers. Hence, a massive accelerator to the crisis came from the derivatives market. This was the beginning of the mortgage market crisis, which gave rise to much turbulence in the financial markets. The direct source of the problem was the overheating of the property market boom, which in turn resulted, among others, from the excessive supply of cheap money in the economy.

Kowalski and Shachmurove (2011) observe that hundreds of billions of dollars in losses from mortgages and mortgage-related securities shook both the real and the financial markets. They further observe that financial institutions that had overexposed themselves to those mortgages and borrowed significantly against them were facing bankruptcies. Global losses were magnified by derivatives, particularly synthetic securities. The collapse of Lehman Brothers and the precarious situation of American International Group (AIG) brought the crisis to its peak.

According to Kowalski and Shachmurove (2011) the crisis was avoidable and stemmed from poor risk management and failures in regulation and supervision. The union of rampant borrowing, risky investments, and a stark lack of transparency throughout the financial system caused the implosion. Kowalski and Shachmurove (2011) place the blame for the crisis squarely on human action and inaction rather than computer error or random act of nature.

Szyszkka (2011) observes that the leaders of the financial sector, whose power grew exponentially from the 1980s to 2007, ignored warning signs and mismanaged risks intricately tied to the wellbeing of their average citizens. The

surge of subprime lending and securitization, rise in housing prices, predatory lending, household mortgage debt, and short-term “repo” lending markets are all red flags that went largely unnoticed. Kowalski and Shachmurove (2011) further blame the Federal Reserve for having failed to stop the growth of toxic mortgages. The deregulation trend severely destabilized the financial markets. The Securities and Exchange Commission (SEC) failed to require additional capital for risky investment by the poorly regulated investment banks. Policy makers made no attempt to slow the ever increasing mortgage securitization.

Furthermore, according to Kowalski and Shachmurove (2011), financial institutions adopted flawed systems of corporate governance and risk management. In the absence of federal regulation, financial institutions failed to self-police and instead assumed higher risk backed by too little capital. These firms chased large profits without giving proper consideration to the large risks accompanying the profits. Employees of financial firms and credit rating agencies replaced human judgment with risk assessing mathematical models. The employee compensation structure exacerbated these risks, rewarding short-term gains with total disregard for long-term consequences.

In an article on Switzerland and the global financial crisis, Schubert (2011) also attributes poor risk assessment as the reason why the Swiss giant financial institution Union Bank of Switzerland almost collapsed and had to be bailed out by the state. He pointed out that \$24 billion of the bank’s money had been invested in the US mortgage market. Risk managers, rather belatedly, cautioned that the bank’s stakes in the US mortgage market were illiquid, that is, not easily sold off if times got tough. The problem was, times did get tough; there was a financial crisis. Other banks in Switzerland, not as tied to US mortgage problems, were not as severely affected by the financial crisis.

2.7.4 Risk Management in African Markets

With the exception of Nigeria, which experienced an indigenous banking boom in the early 1950s (Nwankwo, 1980, p45–53), Brownbridge (2010) opines that the

entry of the local private sector into banking markets was a relatively recent occurrence in Anglophone Sub-Saharan Africa (excluding South Africa). Brownbridge (2010) further explains that local banks were set up in Nigeria and Kenya in the mid-1970s and early 1980s, with new entry accelerating in the second half of the 1980s and the early 1990s. In Uganda and Zambia, Brownbridge (2010) goes on, local banks were first set up in the mid to late 1980s, but new entry also accelerated in the early 1990s. By the mid-1990s, according to Brownbridge (2010), local banks had captured a quarter of the commercial bank market in both Nigeria and Kenya, a fifth in Zambia and about 15% in Uganda.

However, financial distress kicked in from the late eighties through to the nineties in the above markets, according to Brownbridge (2010). He states that in Kenya 2 local banks and 10 Non-Bank Financial Institutions (NBFIs) were closed or taken over between 1984 and 1989. A further 5 local banks and 10 NBFIs were taken over by the Central Bank of Kenya (CBK) in 1993/4, with 2 more local banks in 1996. In Nigeria, 4 local banks were put into liquidation in 1994 and another had its licence suspended, while in 1995 a further 13 were taken over by the Central Bank of Nigeria (CBN). Many more local banks were distressed and subject to some form of 'holding action' imposed by the CBN and the Nigeria Deposit Insurance Corporation (NDIC) in 1995. The Bank of Zambia (BoZ) closed 3 local banks in 1995. Another Zambian local bank had been closed in 1991 but was subsequently restructured and re-opened. The Bank of Uganda (BoU) closed down a small local bank in 1994 and took over 2 more for restructuring in 1995.

The same article by Brownbridge further reports that the available information on the causes of these bank failures indicates that in the majority of cases failure was the result of poor risk management leading to non-performing loans. Arrears affecting more than half the loan portfolio were typical of the failed banks. Many of the bad debts were attributable to moral hazard: the adverse incentives for

bank owners to adopt imprudent lending strategies, in particular insider lending and lending at high interest rates to borrowers in the most risky segments of the credit markets.

Akendele (2012) supports Brownbridge's findings by further observing that the single biggest contributor to the bad debts of many of the failed local African banks was insider lending. In at least half of the bank failures referred to above which were also studied by Akendele, insider loans accounted for a substantial proportion of the bad debts. He notes that most of the larger local bank failures in Kenya, such as the Continental Bank, Trade Bank, and Pan African Bank, involved extensive insider lending, often to politicians. Insider loans accounted for 65% of the total loans of the four local banks liquidated in Nigeria in 1995, virtually all of which has been unrecoverable (NDIC, 1994, para.4). Almost half of the loan portfolio of one of the Ugandan local banks taken over by the Bank of Uganda in 1995 had been extended to its directors and employees. The threat posed to the soundness of the banks was exacerbated because many of the insider loans were invested in speculative projects such as real estate development, breached the large loan exposure limits, and were extended to projects which could not generate short-term returns (such as hotels and shopping centres), with the result that the maturities of the assets and liabilities were imprudently mismatched.

The study by Brownbridge also highlights the poor credit risk management strategies characterised by lending, at high interest rates, to borrowers in high-risk segments of the credit market. This was in part motivated by the high cost of mobilising funds. Because they were perceived by depositors as being less safe than the established banks, local banks had to offer depositors higher deposit rates. The high cost of funds meant that the local banks had to generate high earnings from their assets; for example by charging high lending rates, with serious consequences for the quality of their loan portfolios. The local banks almost inevitably suffered from the adverse selection of their borrowers, many of

whom had been rejected by the foreign banks (or would have been had they applied for a loan) because they did not meet the strict creditworthiness criteria demanded. As a result credit markets were segmented, with the local banks operating in the most risky segment, serving borrowers prepared to pay high lending rates because they did not have access to alternative sources of credit.

2.7.5 Risk Management in the Zimbabwean Financial Sector

According to Dr. Kupakuwana (2010), the first report of a collapsed bank in Zimbabwe was that of Roger Boka's United Merchant Bank in 1998 with Unibank following in year 2000. From then on, the financial system began to suffer serious tremors. The RBZ Monetary Policy Supplement (2006) notes that a number of banking institutions faced operational difficulties from the end of 2003 through to the first quarter of 2004. The challenges were widespread from chronic liquidity, entrenched risk management deficiencies and poor corporate governance practices. Consequently, ten banking institutions were placed under curatorship, two were under liquidation and one discount house had been closed by the year end of 2004. Incredible psychological, emotional, social and financial ruin was suffered by the banking public. Those institutions with deep-seated structural weaknesses, poor risk management systems, poor corporate governance practices, liquidity and solvency issues were found wanting in the difficult macroeconomic environment of 2003 and 2004.

According to the RBZ Monetary Policy Supplement (2006), some of the banks faced the following liquidity and solvency challenges;

- *Inadequate Risk Management Systems*

The affected financial institutions had inadequate risk management and information systems. Consequently they could not identify measure, monitor and control material risks in time. Hence the banks failed because their controls were too weak to mitigate the risks they were exposed to. According to the RBZ (2006) a case in point was Century Discount House Limited (CDH). On 2 January 2004 the discount house was closed following a determination by the regulators that the institution was insolvent and facing serious liquidity problems. To blame was

the irresponsible decision by management of CDH to lend to ENG Asset Management (Pvt) Ltd, whose holding company had acquired CDH Limited without the necessary regulatory approvals. This meant that at the time, ENG Asset Management (Private) Limited had no regulatory supervision. Eventually the discount house was placed under liquidation, and the liquidator actually sued the directors of CDH limited in their personal capacities for gross negligence in running the affairs of the institution.

- *Poor Corporate Governance*

The RBZ (2006) further notes that during the period of 2003 to 2004, the financial sector was characterized by poor corporate governance structures which consisted of improperly constituted boards of directors, poor board oversight, inexperienced management, and excessive influence or dominance by a few shareholders. A study by Akendele (2012) in Nigeria's financial sector concluded that poor corporate governance leads to poor risk management. The RBZ (2006) concurs with this observation and cites Barbican Bank as an example of a bank that struggled with poor corporate governance practices. It was evident that there were no separate and independent boards for each subsidiary and the holding company. Furthermore, the Chief Executive Officer had an over domineering presence since he was also one of the major shareholders.

- *Rapid Expansion*

The RBZ (2006) observes that some of the institutions embarked on rapid and hastily planned expansion offensives that were not harmonized with their overall strategic objectives, thereby exposing the institutions to greater risk of loss. As a result, the capital bases of these institutions were unable to keep up with the excessive expansion programme. An example, as cited by the RBZ (2006), was Trust Bank Corporation which began operations in 1996 as a merchant bank and by 2000 it had changed its license to a commercial bank. The bank ended up facing grave liquidity and solvency problems whose origins could be traced back to the rapid expansion of the institution without a corresponding increase in capital.

- *High Levels of Non-performing Insider Loans*

The RBZ (2006) points out that the excessive levels of non-performing insider loans of the crisis years of 2003 to 2004, were partly attributable to weak corporate governance practices, poor underwriting and monitoring standards, as well as ill-planned growth. It also observes that some of the institutions ignored the set prudential lending limits when it came to insiders and related parties. Interest was not being charged on such loans and these ended up being written off even with no board approval. Inevitably, owing to the illegal dealings with insiders and related parties leading to operational losses, the banks failed to meet the prescribed capital adequacy ratios. An example was CFX Bank which was adversely affected by poor risk management and corporate governance practices, as reflected by several unauthorized excesses and reckless write-offs of interest on insider loans.

- *Chronic Liquidity Challenges*

In a number of cases, the RBZ monetary Policy (2006) observes that a number of financial institutions lacked comprehensive liquidity and funds management strategies and policies. Further, there was poor board supervision and inadequate liquidity risk management systems thereby aggravating the liquidity challenges. Hence one would find long-term non-performing assets being irresponsibly being funded through short-term liabilities, in an environment where interest rates were rising.

For instance, The National Discount House (NDH) experienced relentless liquidity challenges in December 2003 because of its exposures to financial and non-financial institutions. It resulted in deposit flight to banks largely perceived as less risky thereby worsening the liquidity crisis for the smaller banks like NDH leading to the placement under curatorship.

2.8 Risk Management in Banking Supervision

Katchova and Barry (2005) state that in 1988 the Basel Committee on Banking Supervision completed the first Basel Capital Accord after years of deliberations that followed the Latin American sovereign defaults in 1982. Rodriguez (2003) posits that the Basel Capital Accord was established with two fundamental objectives; to strengthen the soundness and stability of the international banking system and to obtain a higher degree of consistency in its application to banks in different countries with a view to diminishing the existing sources of competition among international banks. Alternatively, as Katchova and Barry (2005) postulate, to achieve greater uniformity in capital standards across countries, and to provide equitable standards promoting bank competition. To that end, Rodriguez (2003) notes that the Accord sets the minimum regulatory capital for banks at 8% of the risk-weighted value of their assets. The guidelines proposed in Basel I were accepted by more than 100 countries (Rodriguez, 2003).

According to Kapstein (2008), the Basel Committee on Banking Supervision concentrated on capital standards for two reasons: first because the US Congress instructed their banking regulators to work with regulators from other countries; second because capital serves as a buffer that protects bank deposits – or the deposit insurance fund – in the case of losses on the asset side. However, in the eyes of Oatley and Nabors (2009), Basel I turned out to be too simplistic to address the needs of the banking system in a changing environment of new technology and increased globalization and competition.

Since the 1970s, there have been more than 100 episodes of systemic bank crises in 93 countries, with the frequency and severity of the crises increasing in the last 15 years (World Bank 2001, p.75). Among the shortcomings of Basel I, the following were identified by Rodriguez (2003) as the most prominent;

- (i) The use of arbitrary risk categories and arbitrary weights that bear no relation to default rates, which incorrectly assumes that all assets within

one category are equally risky or that one type of asset is, for instance, 100% riskier than another

- (ii) The risk assessment method is flawed in that it assumes that a portfolio's total risk is equal to the sum of the risks of the individual assets in the portfolio. No account is taken of portfolio effects that can greatly reduce the overall risk of a portfolio or the size of the portfolio which can greatly influence its total risk profile.
- (iii) The Accord gives preferential treatment to government securities. That means that banks need not hold any capital against those securities if issued by OECD countries, or less capital than against loans to corporate borrowers if issued by non-OECD countries. But, Katchova and Barry (2005) cite the sovereign defaults of Russia in the summer of 1998 and Argentina in early 2002 to show that government debt is not a risk-free investment. Nor is a loan to many developing countries safer than a loan to a "blue chip" company.
- (iv) Finally, the existence of risk categories that create a divergence between economic risks and measures of regulatory capital has led to widespread regulatory capital arbitrage i.e. the assumption of greater economic risks without an increase in regulatory capital requirements.

In sum, Katchova and Barry (2005) conclude that, Basel I, already adopted by more than 100 countries, failed to achieve its main goal and may have made the international financial system less, not more, stable. Meanwhile Rodriguez (2003) acknowledges that assigning a 20% weight to short-term bank lending (as opposed to the 100% that lending to most private non-banking institutions carries) led to the Asian crises of 1997-98. Sixty per cent of the \$380 billion in international bank lending to Asia at the end of 1997 had a maturity of one year or less (Mintin-Beddoes, 2009, p.11). Subsequently, the Basel Committee on Banking Supervision then developed a new accord, Basel II, to address the shortcomings of Basel I and to reflect the new developments in the assessment and management of risk.

2.8.1. Overview of Basel II

According to the Federal Reserve Bulletin (2003), the Basel II was developed to achieve the following specific objectives;

- To improve risk measurement and management
- To link, to the extent possible, the amount of required capital to the amount of risk taken
- To further focus the supervisor-bank dialogue on the measurement and management of risk and the connection between risk and capital
- To increase the transparency of bank risk-taking to the customers and counter-parties that will ultimately fund- and hence share- these risk positions.

Meanwhile, Katchova and Barry (2005) explain that Basel II rests on three mutually reinforcing pillars: minimum capital requirements, supervisory review, and market discipline. They elaborate further as follows;

Pillar 1 - outlines the calculation procedures of the capital requirements for banking organizations. Under Basel I, the minimum required capital ratio (set at 8%) is calculated as the regulatory capital divided by the risk exposure (measured by the risk-weighted assets). The difference under Basel II is that the risk exposure is evaluated as the total of the credit risk, market risk, and operational risk exposure of the bank, where more refined measures will be incorporated to calculate credit and operational risk.

Pillar 2 - addresses the supervisory review process in ensuring sound capital management and comprehensive assessment of the risks and the capital adequacy of the banking institutions. This pillar seeks to increase the transparency and accountability of the banking system.

Pillar 3 - aims at improving market discipline by requiring banks to publicly disclose key information regarding their risk exposures and capital positions.

Because Basel II gives banking institutions greater discretion in calculating their own capital requirements, it was anticipated that the disclosure statements would allow market participants to better assess the safety and soundness of the banking environment and thus exert stronger market discipline.

Katchova and Barry (2005) give further insights, stating that Basel II includes three options for measuring credit risk and another three options for measuring operational risk. The options for calculating credit risk are the *standardized approach* and two internal ratings-based (IRB) approaches—the *foundation approach* and the *advanced approach to determine capital costs*. Under the internal ratings-based approaches, banks will evaluate key elements of credit risk: the probability of default, the loss given default, the exposure at default, and the remaining maturity of the exposure. Rodriguez (2003) argues that this option for measuring credit risk has the following shortcomings:

- Although banks are in a better position than regulators to estimate their risk exposures, giving them that option presents them with obvious conflicts of interest when the government acts as the final guarantor of deposits. Will bank managers knowingly or unknowingly under-estimate the riskiness of their assets to lower their regulatory capital charges?
- Or will banks use one of the IRB approaches, only to discover that their capital charges are significantly higher under that approach than under the standardised approach, as one of the quantitative studies conducted by the Basel Committee on Bank Supervision revealed, and then switch to the latter because doing so will lower capital charges? They would certainly have an incentive to do so?
- How expensive is it to implement the systems necessary to use the IRB approaches, not just for banks, but also for the regulators that will have to determine whether those systems are appropriate or not? And will the benefits in terms of lower capital charges from the bank's perspective and a more stable financial system from the regulator's perspective justify the cost?

Likewise, Katchova and Barry (2005) present the three options for calculating operational risk: the *basic indicator approach*, the *standardized approach*, and the *advanced measurement approach*, with varying degrees of bank-provided versus regulator-provided inputs in the calculations of operational risk. As incentives for adopting the more advanced approaches for credit and operational risks, banks are anticipated to experience lower capital requirements.

Again, Rodriguez (2003) proffers some criticism to this approach. According to Rodriguez (2003), it makes more sense to treat operational risk under Pillar II – the Supervisory Review, than under Pillar I- Capital Adequacy Standards. In support of the criticism, Oatley and Nabors (2009) argue that the type of events for which a separate capital charge for operational risk would be necessary (e.g. an out of control rogue trader) are events that have a very low probability of occurring, but a high cost when they do occur. Consequently, a capital charge, no matter how high, may not be enough to cover losses resulting from those events. Furthermore, coming up with a reasonable estimate of the probability of such an event occurring and the expected losses if it does occur is very difficult if not impossible. Higher probability, lower cost events tend to be provided against with general reserves because these losses are usually small. In this case, setting up a separate capital for operational risk could create some distortions, goes their argument.

Meanwhile, other authors like Grind (2006), also criticise the Basel II Accord as being a very vague treaty that gives national regulators a lot of discretion, particularly with regards to the validation of banks' internal systems and the disclosures necessary to use those systems for the determination of capital charges. That vagueness creates uncertainty among market participants and regulators alike which most certainly does not contribute to providing financial stability. Grind (2006) concludes that it will make it easier, however, for regulators to engage in regulatory forbearance and be subject to corruption.

2.8.2. Overview of Basel III

According to an analysis by Jorda (2011), “the recent financial crisis showed that a financial institution’s equity may be sufficient to absorb losses during normal times, but insufficient during periods of systemic distress” (FRBSF Economic Letter, 2011, para.3). He further argues that it was in with this risk in mind that the Basel III agreement of 2010 introduced a new element of macroprudential regulation called countercyclical buffers which are variable capital requirements that shift based on credit growth. However, Schularick and Taylor (2011) warn that “these buffers raise the classic regulatory dilemma of safety versus economic growth, though they may provide protection against financial calamity at an acceptable cost” (p.1875).

They go on to define equity as the cushion that protects a bank from a deluge of non-performing assets (ibid). Therefore, the Basel Committee on Bank Supervision of 2010 concluded that the best defence against another financial crisis is “to increase the quantity and quality of capital banks are required to hold” (www.frbsf.org, para.11). This new regulatory framework is now known as the *microprudential* component of Basel III (ibid). it should be noted that Basel III also introduces a novel piece of *macroprudential* regulation called countercyclical buffers. Through this mechanism, banks would be expected to accumulate capital in periods of unusually high credit growth, thus slowing the formation of credit bubbles, strengthening bank balance sheets, and preventing draw-down spirals. According to Jorda (2011), “these can occur when a bank responds to a series of write-downs by slowing loan growth to protect its capital position, thereby triggering a domino effect on credit availability” (FRBSF Economic Letter, 2011, para.6).

Jorda (2011) further notes that Basel III stipulates that:

Countercyclical buffers be capital ratios of 0 to 2.5% on top of a 7% core capital requirement. It leaves implementation to national regulators. In

June 2011, in a move to further buttress the macroprudential edifice, a requirement was added that international systemically important financial institutions (SIFIs) hold an extra 1–2.5% in equity (FRBSF Economic Letter, 2011, para.9).

The United States has gone as far as enacting a law known as the Dodd-Frank Wall Street Reform and Consumer Protection Act which requires that the Federal Reserve establish special prudential standards for domestic SIFIs (ibid). Governor Tarullo of the United States Federal Reserve, as quoted by Jorda (2011), suggested that “SIFI capital requirements could be as high as 14%. That would mean 2% above the 7% core capital requirement, the 2.5% upper limit of the countercyclical buffer, and the 2.5% Basel III requirement for global SIFIs” (para.19).

According to Jorda (2011), buffer design depends on the perception of regulators about when credit formation becomes excessive. The Basel Committee (2010) favours monitoring deviations from trend of credit as a proportion of GDP to determine the level of excess credit formation (ibid). Studies by Drehmann et al. (2010) support this choice. Once again Schularick and Taylor (2011) caution that such increases in capital buffers could be a death knell for economic growth. They argue that stringent regulation can stifle access to credit, extinguish entrepreneurial initiative, and disturb the channels by which risk is shared. However, Jorda (2011) concludes that, “in the meantime, countercyclical buffers linked to credit growth offer an easily understood and communicated way to fend off financial trouble at what appears to be a reasonable cost to economic growth” (para.4).

2.9 Chapter Summary

The chapter gives an overview of the discussions by different authors on the subject of risk management in banks. The first part looks at the theory behind risk management starting with the definitions and moving on to the origins and categorization of risk. The second part looks at the current state of risk management in modern banks and then moving on to the practical cases of several global, African and local bank failures as a result of poor risk management. The chapter then tails off with the supervision aspect of risk management with specific emphasis on the initiatives from the Bank for International Settlement.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter gives an overview of how the research was carried out. By its nature, research methodology refers to the systematic procedures of inquiry and includes the research design and philosophy, the sampling of units of the study, data collection instruments, procedures and data analysis. The various types of research methods are discussed and the rationale for choosing the case study approach is articulated in the chapter. The chapter then describes in detail the data collection techniques employed to test the proposition and subsequently the data analysis techniques adopted.

3.2 The Research Philosophy

According to Angell (2004), research philosophies are meant to bring up a body of knowledge that can be used in future to solve problems and usher in new knowledge that can be used to develop the societies that we live in. Saunders et al (2000) argue that the research philosophy depends on the way that one thinks about the development of knowledge. They go on to state that the way one thinks about the development of knowledge affects the way they go about doing research. There are two main research philosophies or paradigms, which are Positivist and Phenomenological.

Table 3.1: Alternate terms for the two main research paradigms

Positivist Paradigm	Phenomenological Paradigm
- Quantitative	- Qualitative
- Objectivist	- Subjectivist
- Scientific	- Humanistic
- Experimentalist	- Interpretivist

Source: Adapted from Hussey (1997)

The extreme ends of the two paradigms in terms of core ontological /nature of reality are as follows:

Positivistic Philosophy

There are those assuming that the social world is the same as the physical world. The ontological assumption is that reality is an external concrete structure which affects everyone. As the social world is external and real, the researcher can attempt to measure and analyze it using methods such as laboratory experiments

Phenomenological Philosophy

Reality is seen as a projection of human imagination. Under this assumption, there may be no social world apart from that which is inside the individual's mind.

Table 3.2: Assumptions of the two main Paradigms

Assumption	Question	Positivist	Phenomenological
Ontological	What is the nature of reality?	Reality is objective and singular, external to the researcher	Reality is subjective and multiple as seen by participants in a study
Epistemological	What is the relationship of the researcher to that being researched?	Researcher is independent from that being researched	Researcher interacts with that being researched
Axiological	What is the role of values?	Value-free and unbiased	Value-laden and biased
Rhetorical	What is the language of research?	Formal	Informal
		Based on set definitions	Evolving decisions
		Impersonal voice	Personal voice

		Use of accepted quantitative words	Use of accepted qualitative words
Methodological	What is the process of research?	Deductive process	Inductive process
		Cause and effect	Mutual simultaneous shaping of factors
		Static design. Categories isolated before study	Emerging design Categories identified during research process
		Context free	Context bound
		Generalization leading to prediction, explanation and understanding	Patterns, theories developed for understanding
		Accurate and reliable through validity and reliability	Accurate and reliable through verification

Source: *Adapted from Wallace and O'Farrel (2003, p.320)*

The study in this project borrowed both characteristics of the positivistic as well as the phenomenological philosophies in the sense that it had a problem statement, clearly defined questions, clearly stated objectives, produced both qualitative and quantitative data, both imprecise and highly specific data, generalized from sample to population and consequently its reliability is high.

3.2. Research Strategy

A research strategy as defined by Ramsey (2011) is a plan of action that gives direction to the researcher's efforts, enabling one to conduct research systematically rather than haphazardly. Robson (1993) lists three traditional research strategies as experiments, case studies and surveys.

This particular research was in the form of a case study on ZB Bank. A case study is a fairly intensive examination of a single unit, a group of people or a single company (Hyndman, 2008). Questionnaires were administered to randomly selected stakeholders within ZB Bank. A stratified random sampling method was used where the stakeholders were grouped according to their different roles in risk management. The selection of the population was based on the limitations arising due to cost considerations, and limited time to study the population, hence the researcher had to limit the sample to Harare residents and just one area in the strata mentioned above. As the aim was to draw conclusions about the population, it was necessary to take care that the sample was fully representative of that population. The researcher ensured that the sample size was large enough to allow meaningful conclusions and feasible to execute in the given time frame. To ensure that the sample size is representative of the population, respondents were selected among women and men as well as in different age groups.

Personal interviews were conducted with senior risk managers of ZB Bank. Questionnaires were administered in person and through e-mail. Both open and close-ended questions were used to obtain qualitative and quantitative output.

3.3 Research Design

Carroll (2009, para.1) postulates that "the best statistics cannot save an inferior design! This is the foundation of a good dissertation". She goes on to state that research design and dissertation methodology are plans that promote systematic management of data collection. Similarly, Saunders et al (2000) define research design as the methodology according to which data is collected and analyzed by the researcher. It is a set of logical steps to be followed by the researcher in answering research questions. Meanwhile, Panacek and Thomason (1995) warn that a common misconception is that for every research project there is one single "best design" to answer that research question. In reality, there are usually many different research designs that can be used to approach a given research question, and each one of the designs has advantages and disadvantages.

To best understand how the various designs interrelate, a classification system is needed. There are a number of different classification systems in existence. The research design classification system that is favored by Panacek and Thomason (1995) is “classification by scientific rigor”. This system organizes the research designs based on lines of overall scientific integrity. True experimental designs are those that have a structure that generally result in highly valid results. Quasi-experimental designs are one step down and have a moderate level of scientific validity. Non-experimental are those research designs that, by virtue of their overall structure, give results that do not have strong scientific validity. The ability to draw firm conclusions from the study results is directly proportional to the level of scientific validity of the design.

Decisions regarding which research design to use generally represent a compromise between the goal of rigorous scientific integrity versus limited resources and clinical reality. This study was a true experimental design based on a single case study in order to answer the cause and effect research questions on risk management as it affects corporate performance. Both quantitative and qualitative data were collected using the survey approach with both questionnaires and personal interviews as the research instruments.

3.3.1 Case Studies

Best and Kahn (1993) state that a case study is a way of organizing social data for the purpose of viewing reality. It examines a social unit as whole. The unit may be a person or community. The purpose is to understand the life cycle or an important part of the life cycle of the unit. Robson (1998) goes further to define a case study as the development of detailed, intensive knowledge about a single case or small number of related cases. According to Morris and Wood (1991), this strategy is of particular importance to the researcher if he wishes to gain a rich understanding of the context of the research and the processes being enacted. Case studies try to pull together a wide variety of issues about the defined case, then present the information as a unified whole. Case studies fall under descriptive research because they seek to describe in depth, relationships

among specific behaviors, thoughts and attitudes (Ary, Jacobs and Razaviah, 1985).

3.3.1.1 Advantages of case studies

- Anderson (1990) and Wimmer and Dominick (1994) state that case studies incorporate multiple data sources and looks for converging lines on inquiry
- They use triangulation to interpret converging evidence, pointing to clear conclusion, thus enhancing reliability
- The other advantage is that a case study endeavors to satisfy internal validity and strives to understand the real issues affecting a situation being studied. It usually comes up with multiple evidence, thereby allowing those not involved in data collection to vividly understand and follow the analysis.

3.3.1.2 Disadvantages of case studies

- According to Best and Kahn (1993), case studies threaten external validity because it is difficult to generalize on the basis of one case, which is in this project will only be applicable to one particular bank.
- The other limitation of case studies is that objective data gathering and analysis may be threatened by subjective bias. There is a danger of selecting variable relationships based upon preconceived convictions, which may thus lead the researcher to have certain feeling about the validity of his /her conclusions. However, the bias can be eliminated through random sampling (Best and Kahn, 1993, Anderson, 1990 and Angell, 2004).

3.3.1.3 Justification of using a case study

A case study was used in this research to analyze the problem and answer the research questions. According to Anderson (1990), case studies are concerned with how events happen and why. The case study was chosen as the most appropriate method because there was a cause and effect relationship to be investigated.

3.3.2 Experimentation

Experimentation is an approach used in the causal research design. It is defined as a concept where the researcher has direct control over at least one independent variable and manipulates at least one independent variable. The objective of controlling and manipulating independent variables is to determine the causal relationship with the dependent variable.

3.3.2.1 Advantages of experimentation

- Experimentation method is the ideal method to establish cause-effect relationships
- Can be used for control purposes
- Low relative costs in carrying out the research
- They have the ability to be replicated

3.3.2.2 Disadvantages of experimentation

- The subject area of risk management has people as its subjects and as such, experimentation is difficult.
- Experiments are artificial since they are carried outside the scope of natural environments and usually have researcher bias, which in most cases can foretell findings ahead of the experiment.

3.3.3 Population

A population is a group of individuals that have one or more characteristics in common that are of interest to the researcher (Best and Khan, 1993). According to Cooper and Schindler (2003), a population is a universe of objects whose attributes are to be investigated. It is therefore an aggregation of elements from which a sample is selected. The population may be all the individuals of a particular type or a more restricted part of that group. According to Kothari (2004), the population or universes can be finite or infinite. The population is said to be finite if it consists of fixed number of elements so that it is possible to enumerate it in its totality. The population in this study was finite since it was made up of employees in ZB Bank.

3.3.4 Sampling Frame

Saunders et al (2000) define sampling as a procedure whereby a sufficient number of elements are selected from a given population. A sample is selected from a population in order to get a representative and unbiased data and information about a population. Saunders et al (2000) go on to state that the sampling frame for any probability sample is a complete list of all the cases in the population from which the sample will be drawn. In the study, a stratified random sampling method was used to come up with the sampling frame. The sampling frame was made up of the various lenders in the Credit Services and Consumer Banking departments, personnel in the Business Risk, Audit as well as the Economics & Strategy departments and the Treasury personnel. These strata were deemed to have a greater bearing on the overall risk management of ZB Bank. The following table 3.3 shows in detail how the sampling was carried out with emphasis afforded to managerial level of staff;

Table 3.3: Sampling Frame

Stratum	Population	Sampling Pool	Sample Size
Credit Services	Relationship Managers	30	12
Consumer Banking	Branch Managers	40	19
Business Risk	Risk Managers	5	5
Audit & Compliance	Audit Managers	12	5
Economics & Strategy	Economic Analysts	5	2
Treasury	Treasury Managers	10	4
Total		102	47

3.3.5 Sample Size

According to Bell (1987), a sample is a group of subjects chosen from a larger population with the aim of collecting information about the entire population.

Leedy (1985) argues that the sample must be representative of the entire population from which it is drawn because the results will be generalized to the entire population. Leedy argues further that the absolute size of the sample is the crucial factor rather than the relative size or the proportion of the population sampled. Following on this argument, then the larger the sample size, the smaller the error but also the more it will cost to administer a survey and analyze the data.

Meanwhile, Somekh and Lewin (2005) state that the sample size will depend on the accuracy required and the likely variation of the population characteristics being investigated, as well as the kind of analysis to be conducted on the data. In this study, a sample of 47 respondents was drawn from the six departments directly involved in the risk management activities of the bank.

3.3.6 Sampling Methods

Saunders et al (2000) broadly classified sampling methods into two types as discussed below:

3.3.6.1 Probability sampling

This sampling method ushers in probability or chance where the chance of each case being selected from the population is known and is usually equal in all cases. This means that it is possible to answer research questions and to achieve objectives that require estimating statistically the characteristics of the population from the sample obtained. As a result, probability sampling is associated with surveys and experiments. Saunders *et al* (2000) discuss the following probability sampling methods:

Simple random sampling which involves selecting a sample at random from the sampling frame using either random numbers or a computer. The selected number is not put back into the sampling frame to avoid sampling the same number again.

Systematic sampling involves selecting the sample at a regular interval from the sampling frame. It involves calculating the sample fraction and then selecting subsequent cases systematically using the sampling fraction.

Stratified random sampling, which is a modification of random sampling in which the population is divided into relevant and significant strata based on one or more attributes. A random sample (simple or systematic) is then drawn from each strata or subset.

Cluster sampling is similar to systematic sampling, as there is need to divide the population into discrete groups prior to sampling. The group can be based on any natural occurring grouping. Clusters can be selected using simple random sampling while data is collected from every case within selected clusters usually randomly. *Multi-stage sampling* is a modification of cluster sampling. It is usually associated with geographically dispersed population. The technique involves a series of cluster samples, each involving some form of random sampling.

3.3.6.2 Non-probability sampling

Under this method, the probability of each case being selected from the total population is not known and it is not possible to answer research questions or to address objectives that require making statistical inferences about characteristics of the population. It is still possible therefore to generalize from non-probability sample hence their frequent use in case studies. Somekh and Lewin (2005) discuss the various non-probability sampling techniques as follows:

Convenience Sampling is the least reliable design, but normally the cheapest and easiest to conduct. Interviewers have the freedom to choose whoever they find, hence the name convenience.

Purposive sampling is a design where the sample conforms to certain criteria. The two major types that fall within this type of sampling are *judgment* and *quota* sampling. Judgment sampling is appropriate at the initial stage of research. On the other hand, quota sampling is often used to improve representativeness of the study. The logic behind quota sampling is that certain relevant characteristics e.g. gender, describe the dimensions of the population.

Snowball Sampling also known as *network* or *chain* is a special type of non-probability sampling where respondents are difficult to identify and is best carried out through referral networks. A small number of the samples initially selected by the researcher are then asked to nominate a group who would be prepared to be interviewed for the research; these in turn nominate others, and so forth. Bell (1987) highlights that this technique is subject to bias because a person who is known to someone has a higher probability of being similar to the first person.

Both probability and non-probability were used in association since the study is both a survey and case study. A stratified random sampling technique was used to group the bank's departments. Judgment sampling was then used to determine the level of seniority of the employees of ZB Bank to be interviewed and the researcher opted for management level. A simple random sampling method was then applied to each stratum. By using a case study, the research sought to draw a general conclusion about the industry yet basing the arguments on the findings from one company, ZB Bank.

3.3.7 Sampling Procedure

The stratified random sampling technique was chosen because the different groups have different characteristics. The method also allows elements of different strata to be analyzed separately and thus allow the researcher to design questions relevant to each group. Sampling was as follows:

- ✓ For the Credit Services and Consumer Banking departments, random samples of 12 and 19 managers respectively were chosen as samples. The sample size was 40% of the population.
- ✓ For the Business Risk and Strategy departments, the sample was the same as the population using the principle of universal sampling.
- ✓ For Audit and Treasury, the 40% sample size principle was opted for again
- ✓ Systematic random samples were obtained from each stratum where universal sampling was not applied. From each stratum, every second manager in the order of numbering was picked and the name put in a box and

from the box, a sample per distributor box was obtained and these were picked and approached with a questionnaire. This was a move to avoid bias in the selection of respondents. The sampling procedure therefore yielded 47 respondents.

3.4 Data Collection Methods

According to Hakim (1987), data collection is the process of soliciting data from the targeted respondents. It entails the use of primary and secondary tools such as questionnaires, interviews and documents to gain access to the views of respondents. Saunders et al (2000) examined and discussed some methods involved in *primary data* collection as follows:

3.4.1 Participant Observation

This is a qualitative method derived from the work of social anthropology. Its emphasis is on discovering the meanings that people attach to their actions. Under this method, the researcher attempts to participate fully in the lives and activities of the subjects that are being studied. That enables the researcher to share their experiences by not merely observing what is happening but also feel it. Observations involve watching people and situation, recognizing and noting what is going on rather than asking for information.

Advantages

- ◆ Participant observation heightens the researcher's awareness of significant social processes.
- ◆ Some participant observation affords the opportunity for the researcher to experience 'for real' the emotions of those who are being observed.
- ◆ Virtually, by its nature, all data collected are useful in helping to try and explain behaviors.

Disadvantages

- ◆ It can be time consuming since all human behavior is not exhibited one time
- ◆ It can cause difficulty by posing ethical dilemma for the researcher

- ◆ There can be high level of role conflict for the researcher
- ◆ The closeness of researcher to the situation being observed can lead to significant bias
- ◆ Some organizations may not be accessible for observation

3.4.2 Structured Observation

According to McNeill (2005), the researcher who uses this technique takes on the role of a detached onlooker who carries out detailed analyses of social activity. The observation is focused on particular types of behavior or activity; activity that does not fit the coded observation schedule is ignored.

Advantages

- ◆ By virtue of its replicability, it usually yields reliable results
- ◆ After suitable training on measuring criteria, it can be used by anyone, therefore leaving room for delegation since it is time consuming.
- ◆ It does not only record frequency of events but also relationship between events
- ◆ Data is collected at the time of occurrence in their natural setting therefore eliminating dependency on 'second hand' accounts.

Disadvantages

- ◆ The observer must be in the research setting when phenomena under study are taking place. There is no remote control measurement
- ◆ Research results are limited to superficial indicators from which the observer must make inferences
- ◆ The method makes data collection time consuming and expensive

3.4.3 Interviews

According to Patton (2002), an interview should provide a framework within which respondents can express their own understandings in their own terms. He goes further to distinguish the following types of interviews:

- The *informal conversational interview* where questions are generated spontaneously and are usually used in participant observation

- The *interview guide* which involves a list of questions or issues generated prior to the interview. These issues are to be explored during the interview and do not prescribe precise questions. The list allows the same topics to be covered across interviews and ensures wide coverage of issues under study.
- The *standardized open-ended interview* which consists of carefully worded questions that are asked to all interviewees in the order given in the list. This allows easier comparison and can be very useful when multiple interviewers are employed
- The *face to face interviews employing an interview schedule* which is a standardized schedule used for each respondent in which the questions have the same wording and are asked in the same order.

Advantages of interviews

- ◆ Semi-structured and in-depth interviews are explanatory in their nature and therefore addresses issues beyond the horizon
- ◆ Their explanatory nature allows information exchange to be discussed beyond just giving statistical data

Disadvantages of interviews

- ◆ Interviews are expensive, time consuming or may intimidate or annoy respondents
- ◆ They are also open to interviewer bias and personality conflict
- ◆ Findings may be difficult to analyze
- ◆ There is lack of anonymity and also lack of reliability
- ◆ They generally involve small groups and require training of interviewers
- ◆ The responses given by a person may be biased and affected by his or her reaction to the interviewer positively or negatively.

3.4.4 Questionnaires

Saunders et al (2000) described a questionnaire as a general term to include all techniques of data collection in which each person is asked to respond to the

same set of questions in a predetermined fashion. It therefore includes structured interviews and telephone questionnaires as well as those in which questions are answered without an interviewer being present. Questionnaires can be self-administered on line, through the post or can be delivered or they can be administered by interviewer through the phone or face to face.

Advantages

- ◆ Questionnaires will enable in identifying and describing the variability in different phenomena.
- ◆ Responses are usually sincere since there is no interviewer to please

Disadvantages

- ◆ If not designed to standard, the questionnaires may fail to answer questions about the subject being researched
- ◆ Response rate and reliability is directly affected by how the questionnaire is designed, no more or no less
- ◆ It is not easy to produce what is called a good questionnaire, which precisely collect data
- ◆ Questionnaires are usually not particularly good for explanatory or other research that requires large numbers of open-ended question

3.4.5 Focus Groups

Focus groups are described by Kotler (2001) as group discussions involving about six to twelve people, who spend time with a focus group moderator discussing specific subject. It aims at understanding audience/consumer attitude and behavior.

Advantages of Focus Groups

- Focus groups allow for collection of preliminary information about a topic. They can be used in pilot studies to detect ideas that will be further investigated using other research methods.

- Focus groups can be conducted quickly because of flexibility in question design and follow up. Responses from focus groups are often more complete and less inhibited than those of individual interviews since they tend to stimulate others to pursue thinking that might not have been brought out in situations involving one individual.

Disadvantages of Focus Groups

- Self-appointed group leaders who monopolize the discussions and impose their opinions on other participants dominate some groups
- Focus groups are not an appropriate method for collecting quantitative data. They are however intended for gathering qualitative information since most of the debates answer 'why' and 'how' questions.
- The skills of the moderator also have gravity because if they are questionable especially in probing and timing of questioning, all invited guests may not participate.

3.5 Secondary Data

According to Kelvin (1999), secondary data relates to information that already exists in some form or the other. To enrich the study, the researcher made use of secondary data in order to get more background information about ZB Bank and also to establish trends and make comparisons. Secondary data sources included the ZB Financial Holdings annual reports which incorporated their financial statements. The ZB Bank website also provided a source of useful secondary data. Secondary data was further accessed from other relevant bodies such as the Reserve Bank of Zimbabwe through their website.

3.6 Instrumentation

The study used secondary data, semi-structured interviews and the questionnaires as the methods of data collection. However, the study relied on the questionnaire as the key method because first it identified and captured questions about a subject, then it also described the variability about the phenomena. The questionnaire was designed, with both close-ended and open-

ended questions aimed at the different ZB Bank units. The questionnaire design was such that certain key questions about the risk management strategy were asked by capturing a known number of respondents. The responses to known questions were quantified and described.

The self-administering nature of the questionnaire aided in getting swift responses without an interviewer being physically present. The absence of an interviewer ensures that respondents respond sincerely to the questions instead of responding to please the interviewer. The questionnaire method presented questions as a guide and enabled the respondents to only give back to the researcher what he wanted to hear and understand.

In terms of resources, the questionnaire was cheaper to administer than a situation where field workers were sent out to assist. As a result of their structured nature, virtually all data collected was analyzed. To augment questionnaires, interviews were conducted and these sought to get a deep insight of the industry, especially addressing those issues that were not captured in the questionnaires.

3.7 Reliability and Validity of the Instrument

3.7.1 Reliability

Adams et al (2007) highlight that reliability estimates the consistency of the measurement or the degree to which an instrument measures the same way each time it is used under the same conditions with the same subjects. They further contribute that reliability is essentially about consistency i.e. if we measure something many times and the result is always the same, then we can say that the measurement instrument is reliable. In other words, when the outcome of the measuring process is reproducible, the measuring instrument is reliable. However, this does not mean that it is valid but simply means that the measurement instrument does not produce erratic and unpredictable results.

Inevitably, a pre-test study was carried out within ZB Bank in order to test the reliability of the instrument. Pre-testing indicated points of improvement on the research tool. Care was taken to ensure that those who participated in the pre-test were not part of the main research survey. Data collection commenced after all the concerns regarding reliability and validity had been addressed.

3.7.2 Validity

Adams et al (2007) note that validity is the strength of our conclusions, inferences or propositions. They further postulate that validity involves the degree to which you are measuring what you are supposed to, or more simply, the accuracy of your measurement. It is believed that validity is more important than reliability because if an instrument does not accurately measure what it is supposed to, there is no reason to use it even if it measures consistently or reliably.

Three kinds of validity of measurement were discussed by Polit and Hungler (1983); namely *empirical*, *content* and *construct* validity. With construct validity, Babbie (1973) states that the designer is concerned with the way questions are constructed. Questions have construct validity when they mean exactly what they are meant to mean. To this end, the researcher widely consulted experts in the field of finance in order come up with well-constructed questions.

The researcher made sure that all questions asked covered the major aspects of the research topic as a way of ensuring content validity. Questions regarding corporate performance, risk management models and possible links between the two issues were incorporated in the research instrument.

Nachmias and Nachmias (1981) point out that empirical validity deals with the relationship between the measuring instrument and the measurement results. To this end the researcher had a significant sample size that justified the use of questionnaires.

3.8 Data Analysis and Presentation

Data was presented in tables and graphs. The quantitative component of data collected was analyzed using a computer based Statistical Package for Social Science (SPSS) to measure the population parameters while construction of graphs was with the aid of Microsoft Excel. According to Saunders et al (2000), responses greater than 30 have to be statistically analyzed using a method of one's choice. For that reason, the end user responses were analyzed using SPSS.

3.9 Research Procedure

The survey research method was used to collect primary data. This method is mainly associated with questionnaires and interviews. Questionnaires were hand delivered to the various departments of the bank. The questionnaires had both open ended and closed questions. The researcher also made use of some internal documents such as annual reports to validate the research findings. The researcher also carried out some in-depth interviews with key personnel from various departments within the targeted sample.

3.10. Research Limitation

The research was limited by financial and time constraints; and as such respondents were drawn mostly from Harare. Use of e-mail brought in some bias as only those on functional e-mail would respond. However, the targeted sample population was ordinarily on email for their day to day business transactions. Lack of co-operation was a key hurdle to the researcher since some of the employees feared to divulge confidential information. The researcher's networks within the bank were critical to secure appointments with usually busy senior management of the bank.

3.11 Ethical Considerations

As part of ethical considerations, the researcher had to seek the indulgence of senior management of ZB Bank to carry out his research within the bank. An undertaking by the researcher was needed that all data availed to him would be treated in confidence and the research findings were strictly for academic purposes. The researcher also sought consent from the respondents before disseminating questionnaires. Further, a release letter from the Director of the Graduate School of Management was availed to the researcher which assured ZB Bank that he was a bona fide student and that the research was purely for academic purposes.

3.12 Chapter Summary

This chapter described the methodology employed in carrying out this study. Foremost, the justification of the study to adopt a case study approach was discussed. The data collection method employed was explained and the criteria used to select the research population delineated. The required sample was described and characterized, and the choices of measuring instruments and data analysis techniques applied were justified. Finally, the limitations of the study were discussed. The following chapter will present the results of the empirical analysis.

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents a description of the findings and analysis of the research. Findings are analysed in relation to the proposition set out at the beginning of the study. As explained in chapter three, data was drawn from questionnaires, personal interviews with key informants and a case study of the organisation. SPSS version 12.0 was used to produce meaningful information from the raw data gathered from questionnaires. The quantitative data are presented in the form of tables and graphs with detailed narratives employed to interpret the results. Qualitative data from open-ended questionnaires are thematically analysed. Detailed descriptions of the research findings are discussed in relation to other sources of established literature and knowledge on the subject. The findings are categorised into four main discussion concepts namely;

- Demographic information
- The current risk management strategies at ZB Bank
- The competence of the current risk management strategies at ZB Bank
- The effectiveness of the risk management strategies at ZB Bank

The chapter then concludes with a discussion on the research proposition put forward in chapter 1 to determine whether to accept or reject it.

4.2 Response rate

A total of 47 questionnaires were distributed in the data collection stage of the research. The overall response rate achieved was 80.85% as tabulated below;

Table 4.1 Survey Response Rate

Department	Sent out Questionnaires	Completed Questionnaires
Credit Services	12	10
Consumer Banking	19	15
Business Risk	5	4
Audit & Compliance	5	3
Economics & Strategy	2	2
Treasury	4	4
Overall	47	38

According to Nachmias and Nachmias (1981), a measurement instrument satisfies the empirical validity condition if the results obtained can make statistical inferences to the total population. Saunders et al (2000) comment further that a response rate above 50% is regarded as the minimum for results to be obtained to be considered accurate and from where inferences on the sample can be made on the characteristics of the population. In the study the overall response rate was 80.85% and is considered valid for the purposes of the research.

It should be noted that the researcher also conducted personal interviews with individual heads of each of the above departments. This was very useful in providing further details especially in sections where the questionnaire responses deviated from the expected and required further probing.

4.3 Demographic Information

Table 4.2 Gender of Respondents

Sex	Frequency	Percentage
Male	23	60%
Female	15	40%
Total	38	100%

The males represented 60% of the respondents whilst the females were at 40%. This represents the overall gender distribution in the key risk management positions of the organisation.

Table 4.3 Academic Qualifications of the Respondents

Qualification	Frequency	Percentage
Certificate Level	0	0
Diploma Level	3	7.89%
Undergraduate Level	26	68.43%
Masters Level	9	23.68%
Doctorate Level	0	0
Total	38	100%

The above table shows that the minimum entry level into a key risk management position of the bank is an undergraduate degree. The few respondents who were at diploma levels are exceptions with compensating years in experience. A sizeable chunk at 23.68% even had post-graduate qualifications. This meant that the researcher managed to extract data from a well-educated sample that was competent enough to give revealing information with regards to the area of study.

Table 4.4 Length of service

Work Experience	Frequency	Percentage
1 – 5 years	6	15.79%
5 - 10 years	7	18.42%
10 – 15 years	9	23.68%
15 or more years	16	42.11%
Total	38	100%

The above table shows that up to 85% of the respondents have served the organisation for at least 5 years. Again this works to the advantage of the quality of information extracted from them as they are quite well versed with the operations of the organisation.

Table 4.5 Current Job Position

Position	Frequency	Percentage
Senior Relationship Manager	2	5.26%
Relationship Manager	8	21.05%
District Manager	2	5.26%
Branch Manager	13	26.32%
Operational Risk Manager	1	2.63%
Credit Risk Manager	2	5.26%
Recoveries Manager	1	2.63%
Audit Manager	5	13.16%
Treasury Front Office Manager	2	5.26%
Economic Analyst	2	5.26%
Total	38	100%

As shown by the responses gathered in the above table, it turned out that all respondents were deliberately sampled at managerial grades. Also, there are a number of extended positions in the various departments selected. For instance, in the Credit Services unit there are “*senior*” and “*junior*” relationship managers. In the Consumer Banking unit there are “*district*” and “*branch*” managers. In the Business Risk unit there are “*operational*”; “*credit*” as well as “*recoveries*” managers. In the Treasury there are “*front office*” and “*back office*” managers. The most important common characteristic of these particular jobs is that they are the implementers of the risk management strategies of the bank, hence their relevance to the study.

4.4. The Current Risk Management Strategies at ZB Bank

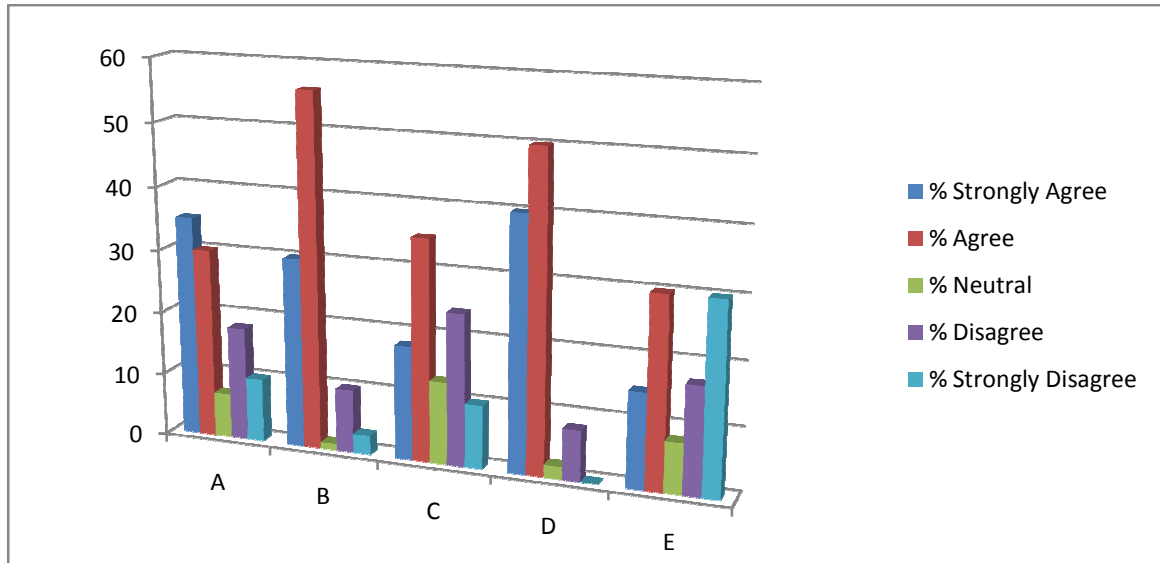


Figure 4.1 The current strategies as perceived by management of ZB Bank

Key Fig 4.1: A - Integration of risk management into business strategy
 B - Match of risk management with international best practices
 C - Risk Management as competitive strategy
 D - Clarity of risk management objectives
 E - Regular evaluation of risk management

The above figure is a summary of results on the current risk management strategies employed by the bank in an effort to address the first objective, which is to determine the status of the current strategies. It can be observed that up to 65% of the respondents agreed that the risk management function is integrated into the bank's business strategy whilst on the other extreme there were 28% who disagreed. A further 7% were non-committal and comprised the neutral responses. This set of statistics prove that the bank's strategies are modeled along Tongson's (2008) recommendation that business owners incorporate risk management into the core values of the company in implementing an enterprise wide risk management program.

Meanwhile, a staggering 86% of the respondents believed that the bank's risk management strategy matches the international best practices, whilst 1% was neutral. On further probing through follow-up personal interviews, it came to the researcher's attention that the Reserve Bank's decision to impose the Basel II

Accord on risk management on all commercial banks led to this perception. However, the 13% who disagreed were of the view that elsewhere in the international financial market there were those that are already implementing Basel III and as such the bank was still lagging behind.

Up to 53% of the respondents were of the view that risk management serves the bank as means for competitive edge. This was because the respondents regard the bank as a safe institution especially in the wake of recent and past local bank failures that Kupakuwana (2010) attributed to deep-rooted risk management deficiencies. On the other hand, the 34% that disagreed believed that the risk management strategy actually works against competitiveness because it introduces some rigidity in decision making. The 13% who were neutral believed that there is no relationship between competitive strategy and risk management.

An overwhelming 90% of the respondents were of the view that each unit of the bank has clearly laid out risk management objectives. Upon further inquiry, it came to the researcher's attention that the bank actually organised a training workshop for all risk taking units where the rationale behind the Basel II Accord was explained. Incidentally, the target group for the workshop also constituted the sample taken for this study. As a result the majority of the respondents thought they had clarity on the objectives of the bank's risk management strategy. The 8% who disagreed felt that the guidelines from Basel II were more of a regulatory imposition and as such the bank units could not claim clarity on the objectives.

Almost par percentages of 45% and 47% respectively were recorded for those who agreed and those that disagreed that the bank carried regular evaluation of its risk management strategy. These mixed feelings may point to lack of effective communication resulting in some departments accessing feedback on the evaluation activities whilst others did not.

4.5. The Suitability of the Current Risk Management Strategies

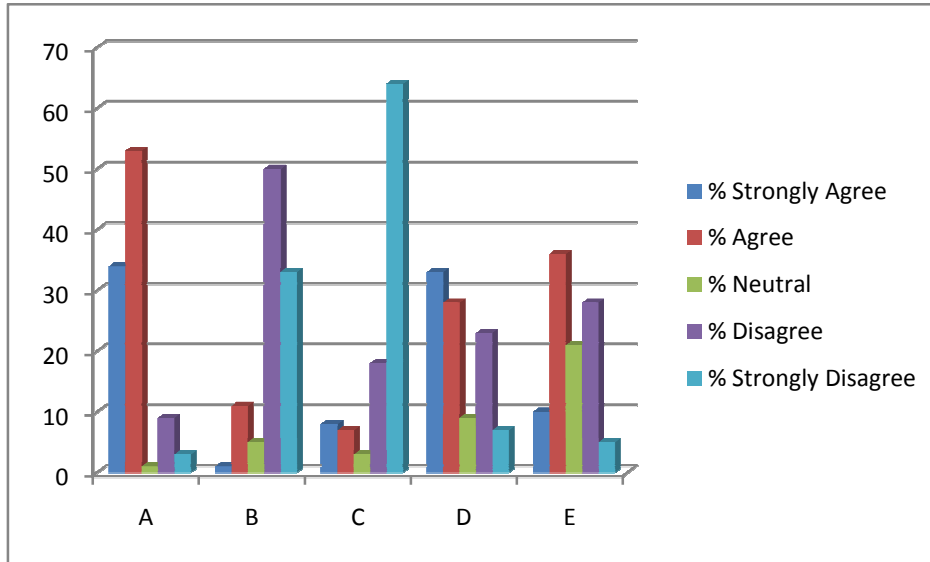


Figure 4.2 Fitness of the risk management strategy into the organisation

Key Fig 4.2: A - Understanding of risk management by staff

B - Adaptability of risk management strategies

C - Resource allocation to risk assessment

D - Information dissemination to risk officers

E - Risk strategy as growth enabler

The above figure is part of the evaluation process on the competence of the current risk management strategies as required in objective number 4. There appears to be confirmation of earlier assertions that there is clarity of the risk management objectives in all units of the bank. This time around, up to 87% of the respondents agreed that there is a high level of conceptual understanding of risk management by staff. This confirmation satisfies the reliability condition of the research instrument used. Adams et al (2007) highlight that reliability estimates the consistency of the measurement. They further argue that reliability is essentially about consistency i.e. if we measure something many times and the result is always the same, then we can say that the measurement instrument is reliable.

On the other hand, 83% of the respondents did not believe that the bank's risk management strategy is flexible enough to adapt to the constantly changing operating environment. The 12% that thought the bank's risk strategy is flexible justified their assertion by the fact that the bank managed to steer through the turbulent financial crisis of 2004 as well as the hyperinflation period up to 2008 and finally through the current dollarized environment.

The majority of the respondents, at 82%, were of the view that the bank was not allocating sufficient resources to the risk management functions. Their argument was that the risk officers should be sufficiently resourced for them to carry out their duties diligently. For instance, respondents in the Credit Services unit cited that they did not have reliable vehicles to enable them to carry out regular onsite inspections of clients' operations as part of interim reviews for loans granted thereby exposing the bank to moral hazard.

Whilst the majority (61%) of the risk officers thought that there was sufficient information dissemination from the specialised business risk department regarding the modern risk management frameworks, it should be noted that there was a significant 30% that felt otherwise. Those that disagreed felt that information should be continuously flowing and noting that just the one workshop that was conducted was not sufficient to ensure that everyone is well versed.

Interestingly, less than half (46%) of the respondents viewed the bank's risk strategy as a growth enabler. An unusually high number at 21% were neutral whilst the balance of 33% was in disagreement with the proposition. The general feeling was that the bank's strategy was more on the conservative side.

4.6. The Effectiveness of the Current Risk Management Strategies

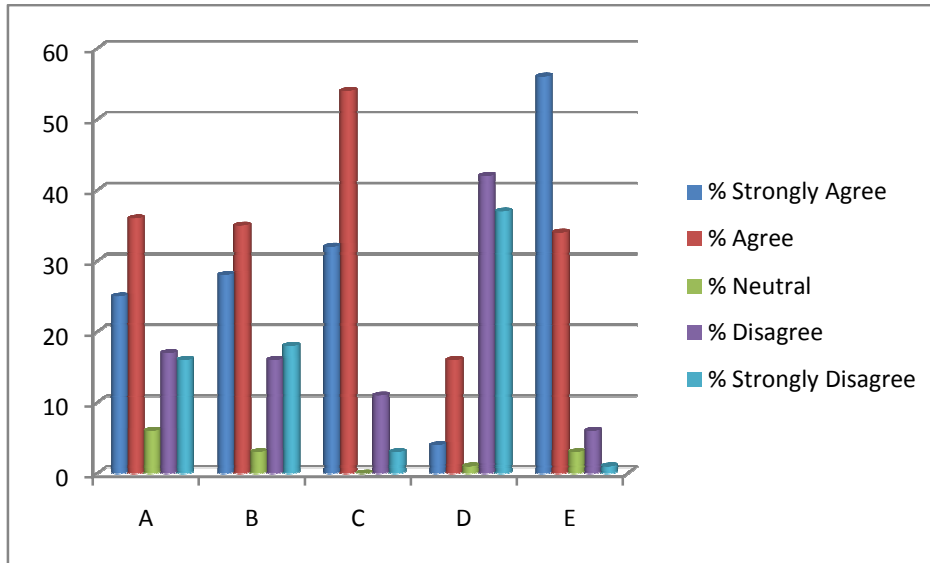


Figure 4.3. The evaluation of the risk management strategy

Key Fig 4.3: A - Existence of periodic reviews of risk strategies against performance
 B - Existence of feedback to staff on risk strategy reviews
 C - Continuous adoption of new risk management frameworks
 D - Profitability enhancement through the bank's attitude to risk
 E - Conformity of the bank's strategies with the RBZ regulations

The above figure further addresses objective number 4 of the study, which seeks to evaluate the current risk management strategies of the bank. There were 61% of the respondents who agreed that the bank does carry out periodic reviews of the risk strategies against performance. This is consistent with Tongson's (2008) recommendation that business owners should perform regular reviews when implementing an enterprise wide risk management program. The 33% that disagreed with the proposition are the same as those that constituted the 34% who felt that there is no feedback to staff on the risk strategy reviews. Hence the bank might not be communicating its review processes to all internal stakeholders.

The respondents were consistent with earlier assertions when 86% agreed that the bank continuously adopts new risk management frameworks whilst 14% disagreed and none were neutral. Again, the reasons for this pattern are to do with the general perception by the majority of respondents that the Basel II

framework was the latest model for risk management. The minority 14% comprised those that are conversant with the existence of the Basel III.

Up to 79% of the respondents were of the opinion that the bank is averse towards risk and as such its strategy limits the profitability of the organisation. Collier et al (2007) warn that the risk management process does not necessarily encourage managers to be risk averse. In fact, it is designed to provide managers with a degree of confidence to be able to manage risk to an acceptable level and to take a level of risk commensurate with the opportunity. The key element in managing risk is correctly balancing risk and reward. A culture which is risk averse will create inflexibility in the business and erect barriers to the achievement of the organization's goals.

Meanwhile, 90% of the respondents agreed that there is conformity of the bank's risk management strategy to the RBZ regulations. This gives them the confidence in the continuity of the organisation. The 7% who disagreed cited certain RBZ aspiratory guidelines such as the threshold of non-performing loans as one area that is not compliant. On further probing, they conceded that steps were being taken by the bank to rectify.

4.6.1. Knowledge of the current risk strategies

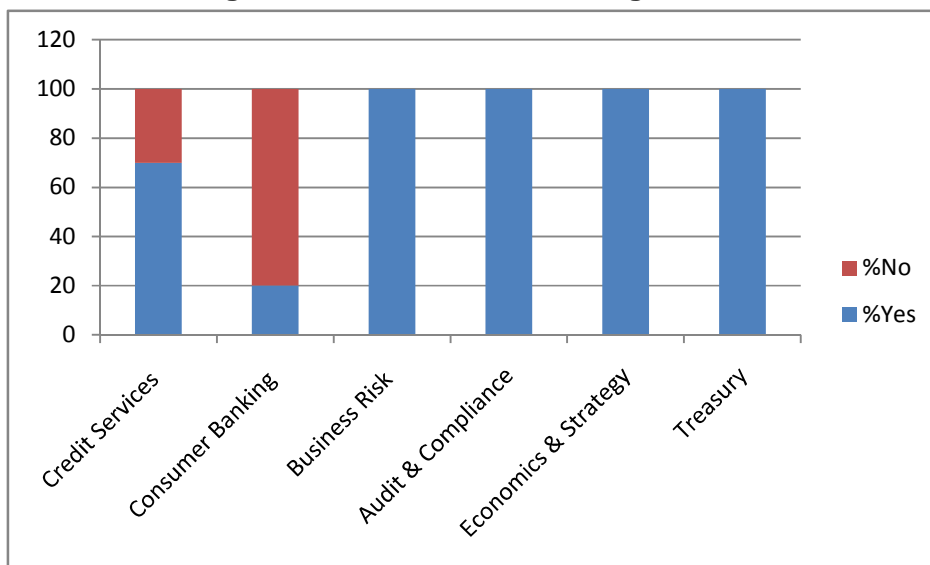


Figure 4.4. Knowledge of risk management strategy by department

The above is an illustration of the depth of risk management expertise in the various departments of the bank. Of note, is the fact that 30% of the Credit Services relationship managers and 80% of the Consumer branch managers were of the view that some of the staff in their respective units are not conversant with the bank's risk management strategies. This should be cause for concern on the bank because these are risk generating units. Upon further enquiry, it was revealed that the reason behind this statistic was that there were quite a lot of new employees especially in the branches. However, Yunfeng et al (2008) argue that modern commercial banks are nurturing risk management culture inside the banks. Bank management team and risk management staff in different levels should be involved in specific risk management and know well about basic risk measurement methods chosen by the bank, while staff in any position should have risk prevention consciousness, and take risk factors into consideration with self-consciousness in any events.

Meanwhile, in the Treasury department, all the 100% of respondents stated that all employees were aware of the bank's risk strategy. This is a major risk generating centre as it handles the bank's funding position and can be responsible for the total collapse of the bank. The head of that department advised that they made it a point that all new recruits in the department went through a comprehensive orientation programme where risk management is central.

On the other hand, the Business risk, Economics & Strategy and Audit departments were also 100% sure that staff was conversant with the bank's risk strategy. These are specialised departments who are actively involved in the overall formulation of the strategies and as such all staff in these departments have to be conversant.

4.6.2. Innovativeness of the current risk strategies

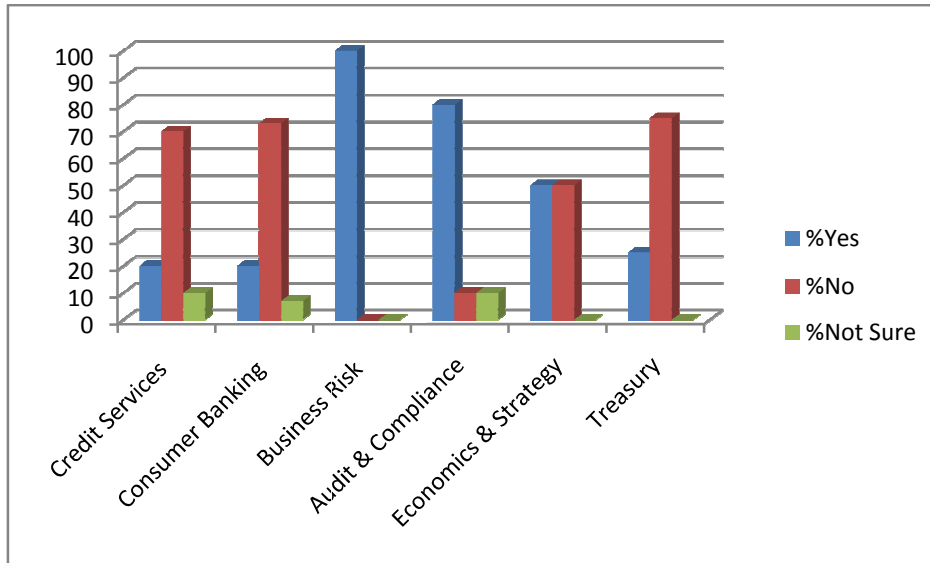


Figure 4.5. Innovativeness of risk management strategy by department

The above are the results on the question of whether the respondents view the bank as a creator of innovative risk management strategies that enhance overall performance. The most outstanding statistics came from the business risk and audit departments where 100% and 80% respectively of the respondents answered in the affirmative. These departments are made up of specialists in the area of risk management and one would have thought they would be the most critical but, surprisingly, this was not the case. Upon further probing, it was revealed to the researcher that the bank works closely with reputable international schools of banking in an effort to continuously improve the risk management strategies.

However, the risk generating units, namely the credit services, treasury and consumer banking answered negative 70%, 75% and 73% respectively. They felt that the bank was rather rigid in its conservative attitude to risk and this has slowed down overall performance of the organisation. Meanwhile, the Economics and Strategy department was indifferent, despite being the research centre of the bank. One would have expected them to give a more distinct position on the matter.

4.6.3 Contribution of the risk strategies to performance

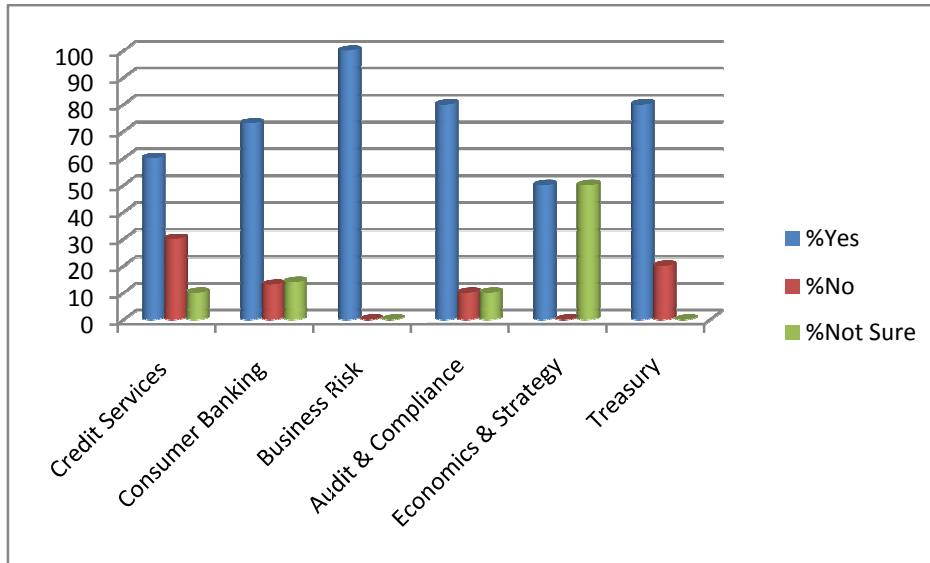


Figure 4.6 Contribution of risk strategies to performance by department

The above is an illustration of how the respondents evaluated the bank's risk strategies in relation to each unit's overall performance thereby seeking to answer research question number 2, which asks if the risk management strategies are contributing to bank performance. As in the previous case of the innovativeness of the bank's strategy, the business risk and audit departments ranked the relationship highly at 100% and 80% respectively. These two departments are custodians of the bank's risk management strategy and as such, their overall performance is closely linked to the overall effectiveness of the same.

This time around, the Credit Services, Treasury and Consumer Banking units responded in the affirmative at 60%, 80% and 73% respectively, whilst the Economics and Strategy department maintained their indifferent stance. These results reveal that there is general consensus among the units of the bank that the risk management strategies in place are sustainable and are directly related to the overall stable performance of the bank. This is in agreement with a study on the relative effect of risk management and corporate governance on bank performance in Nigeria that was conducted by Akendele in 2012. The study reveals that there is a positive relationship between risk management and bank

performance. That effective risk management enhances bank profitability and performance. Further, that bank performance depends largely on risk management. Moreover, Mr. Wriston, the former chairman of CITI Bank as quoted by Yunfeng et al (2008), considered banks as organizations that earn their profit by their risk management ability.

4.6.4 Adaptability of the risk management strategy

The researcher noted that among the different job positions, there were different views on the adaptability of the current risk management strategies as tabulated below;

Table 4.6 Perception on the adaptability of the risk strategy by job position

	Frequency		
	Yes	No	%Yes
Senior Relationship Manager	2	0	100
Relationship Manager	0	8	0
District Manager	2	0	100
Branch Manager	0	13	0
Operational Risk Manager	1	0	100
Credit Risk Manager	0	2	0
Recoveries Manager	0	1	0
Audit Manager	0	4	0
Treasury Front Office Manager	0	2	0
Economic Analyst	0	2	0
Total	6	31	83

Of interest were the apparent conflicts within the Consumer Banking and Credit Services units. It appears that the senior managers who constituted 15% of the respondents were at odds with their immediate subordinates in as far as their views on the adaptability of the bank's risk management strategies to the operating environment. The entire senior relationship and district management

were of the view that the bank's strategies were flexible in contrast to the junior managers who did not share that view. This reflects a lack of common understanding between the two groups of employees which can only be smoothened by training and better communication.

4.6.5 Allocation of resources to the risk strategy

On the question of whether sufficient resources were being allocated to the risk management functions, the researcher noted another curious pattern as tabulated below;

Table 4.7 Resource allocation to the risk strategy by job position

	Frequency		
	Yes	No	%Yes
Senior Relationship Manager	0	2	0
Relationship Manager	0	8	0
District Manager	0	2	0
Branch Manager	0	13	0
Operational Risk Manager	1	0	100
Credit Risk Manager	2	0	100
Recoveries Manager	0	1	0
Audit Manager	3	2	60
Treasury Front Office Manager	0	2	0
Economic Analyst	2	0	100
Total	7	31	

It appeared from the above results that the front office risk managers had divergent views from the back office risk managers on the issue of resource allocation. In this case, the front officers are the managers in the Treasury Front Office as well as those in the Credit Services and Consumer Banking departments. The front officers were looking at tangible resources like motor

vehicles which were now deemed unreliable for the required number of client visits and as such they responded in the negative. On the other hand, the back office managers answered in the positive because they were looking at such resources as office equipment and computer systems which were deemed adequate.

4.7. Evaluation of the Risk Management Framework of ZB Bank

The following findings were mostly derived from secondary data that was accessible to the researcher. These were mainly the published financial statements as well as some internal management reports. Where necessary, clarifications were sought from the relevant bank officials. This evaluation is aimed at objective number 1 which calls for the determination of the status of the current strategies.

4.7.1. Capital Risk Management

The bank's operating target is to maintain operating assets at a level that is higher than the available operating funds at all times in order to restrict recourse on shareholders' equity for operational funding. The Executive Management of ZB Bank monitors the level of capital adequacy on a continual basis, employing techniques adopted from the guidelines developed by the Basel Committee and contained in the Basel II capital accord as implemented by the supervisory authorities. The following Table 4.7.1.1 shows the bank had sufficient levels of bank capital over the years against the prescribed \$12, 5 million by the RBZ;

Table 4.8 ZB Bank Shareholders' funds

Year	Shareholders' funds
2009	\$33 756 710
2010	\$40 419 470
2011	\$51 529 788

Source: ZB Financial Holdings Annual reports

In his study for 12 European countries, Bourke (2009) concluded that there exists a positive and significant effect of the capital adequacy on bank profitability.

Further, Berger (2005), finds that the capital and bank profitability tend to be positively related for a sample of US banks. Moreover, Anghazo (2007) finds that well-capitalized banks in USA are more profitable than other less-capitalized banks. A positive relation between capital adequacy and profitability was also suggested by Kosmidou (2007).

4.7.2 Liquidity Risk

Liquidity risk is considered low for the bank based on its ability to expeditiously mobilise resources in the market. This objective was met at all times during the course of the years 2009 to 2011 as shown by the table 4.7.2.1 below where operating assets were consistently more than available operating funds;

Table 4.9 Operating assets and liabilities

Year	Operating assets	Segment liabilities
2009	\$62 194 479	\$57 484 638
2010	\$135 113 858	\$130 364 888
2011	\$200 500 183	\$188 665 804

Source: ZB Financial Holdings Annual reports

However, Ramadan et al (2011) argue that deposits and loans are the most important indicators in the bank financial statements because they reflect the bank's primary activity. They further argue, assuming other variables constant, that the higher the rate of transforming deposits into loans, the higher the profitability will be. For that, a positive relation between the loans and banks profitability are expected. On the other hand, Berger (2005) warns that if increasing loans leads to higher funding requirements, a negative impact of the loan ratio on the banks profitability may accrue. ZB Bank has access to a diverse funding base and can raise funds using a broad range of instruments including deposits, liabilities evidenced by paper and share capital. The bank has funding flexibility and this limits dependence on any one source of funding. The funding gap is monitored through a number of management reports including maturity profiles.

The bank continually assesses risk by identifying and monitoring changes in funding required to meet business objectives and targets set in terms of the overall business strategy. Other tools used are the imposition of dealer limits, reporting on facility utilizations and excesses that require management attention.

4.7.3. Interest Rate Risk

Interest rate risk is identified using the term structure of assets and liabilities. Rate sensitive assets and liabilities are analyzed and a maturity profile exhibited. The Assets and Liabilities Committee (ALCO) reviews the gap analyses and appropriate action is taken to keep risk within acceptable limits. In the main, lending is linked to the Group's prime rate and is funded through short-term borrowings thus narrowing the gap.

ALCO meets at least once a week to discuss the future direction of interest rates after the economic fundamentals have been analyzed. Decisions are then taken on rate sensitive assets and liabilities. If there are changes in the economic fundamentals that have not been forecast, an ad hoc ALCO meeting will be called to discuss the issues and chart a way forward.

4.7.4. Foreign Exchange Risk

The risk is controlled through the use of dealer limits placed on the overall foreign exchange position. The bank's main exposure to foreign currency risk arises from the commitments for licence and support fees for information technology platforms that were sourced from foreign suppliers.

4.7.5. Credit Risk

The bank has a credit risk management process which operates through a hierarchy of exposure discretions. All exposures above a certain level (currently \$1, 2 million) require the approval of the Board Credit Committee's which comprises executive and non-executive Directors. Exposures below the Board Credit Committee's discretion are approved according to a system of tiered exposure discretions consisting of Divisional (up to \$175 000) and Group Credit Committees (above \$175 000 up to \$1,200,000). Regular credit audits and

reviews are conducted and problem accounts are highlighted and management action is taken as appropriate. The table below shows the credit exposure by client quality classification:

Table 4.10 The ZB Bank Loan Classification Schedule

Classification	2009	2010	2011
Good	\$22 821 793	\$73 002 400	\$136 274 308
Substandard	\$169 180	\$649 629	\$214 907
Doubtful	\$512 400	\$112 829	\$800 863
Loss	\$21 179	\$3 293 294	\$8 000 544
Total	\$23 524 552	\$77 058 152	\$145 290 622

A deteriorating trend in the proportion of the book classified “doubtful” and “loss” is noted over the last three years. As of 2009 the “bad book” was 2.27% of total credit but deteriorated to 4.42% in 2010 and 6.05% in 2011. Management attributes this trend to weak economic growth resulting in businesses struggling to cope with the demands of the multi-currency trading regime, hence the increasing default rate. This view is supported by Ramadan et al (2011) when they point out that the environment in which the bank works affects the bank’s credit risk. There is a poor legal environment in Zimbabwe as it takes ages for the bank to be able to enforce its rights on the collateral held against borrowings, which leads to higher credit risk. In addition, lack of accurate information about borrowers due to the absence of a centralised credit bureau also exposes the bank to adverse selection leading to higher credit risk.

4.7.6. Operational Risk Management

The risk is measured through risk workshops, interviews, research and control and risk self-assessments. The bank manages the risk through staff training and development, segregation of duties, reviewing the work performed and regular internal and independent audits. Further, the Group has administration manuals to guide staff in the execution of their duties and these manuals are reviewed from time to time. Any losses incurred as a result of this risk are reported through

the management line to the Board Audit Committee and lessons learnt from each incident are used as case studies in training staff, improving the control procedures and the control environment. However, responses from the questionnaire suggest that not enough training has been conducted given that 30% of the Credit Services relationship managers and 80% of the Consumer branch managers were of the view that some of the staff in their respective units are not conversant with the bank's risk management strategies.

4.7.7 Legal, reputational and compliance risks

All agreements entered into by the bank are reviewed by the Legal and Investigations Department to make sure that they are consistent with normal market practices. The ZB Group has a Compliance Department which monitors and ensures that the bank is complying with all the rules, regulations and laws of the country in all material respects. The Group Compliance Officer reports to the Board Audit Committee on a quarterly basis on all compliance related issues. The bank manages this risk through staff training and development, regular and independent audits. Any losses incurred are reported to the Board Audit and Board Executive Committees. Lessons learnt are used in staff training to avoid recurrences.

However, the placing of the bank under US sanctions has somewhat dented the institution's reputation. Management is of the view that the bank's government ownership made them target of OFAC's financial measures as opposed to them failing to manage reputational risk.

4.7.8 Technological risk

The researcher considers this risk as low in view of the stability of the current technology platform, the in-house expertise that has been gained over the years and the strong support available from the vendor of the platform. The bank measures the risk through setting and monitoring the maximum tolerances for system downtimes, ensuring that the reports are available at the appropriate times and generally that operational efficiency is being achieved. The bank

manages this risk through staff training and development, regular and independent audits. Issues are also escalated to the vendor as appropriate and these are always resolved expeditiously. Further, the bank updates Business Continuity Plans (BCP) and Disaster Recovery Plans (DRP) regularly and also conducts business continuity and disaster recovery tests twice per year.

The deadlines for the production of all reports are monitored strictly. Any system breakdowns are attended to and reported promptly to ensure that appropriate corrective action is instituted. The bank constantly reviews new technologies and adopts them where appropriate. All computer rooms are temperature controlled and well ventilated. Access is restricted to authorized persons only. There are various levels of access to the system based on the seniority of the officers concerned.

4.7.9 Solvency risk

The loan/deposit ratio is monitored regularly and corrective action instituted where appropriate. The bank measures this risk through setting maximum levels for loan/deposit ratios and reviewing the relationship between liabilities and assets through maturity profiles and term structures. The bank manages the risks through setting limits for the loan/deposit ratio and ensuring that these limits are not exceeded.

4.8. Evaluation of the Overall Effect of Risk Strategies on Corporate Performance

The key informant interviews that were carried out revealed to the researcher that the risk strategies in ZB Bank are there to stop the acceptance of disproportionately high risk transactions, plug loopholes and reduce frauds thereby enhancing corporate performance. In order to measure this performance, Machiraju (2003) suggests a number of financial variables such as sales, profits and cashflow improvement. However, Lucey (1996) argues that ratio analysis is a more comprehensive method of appraising financial performance since it summarises both internal and external financial reports to come up with key relationships in the form of ratios. However, Sudasanam (2003) argues that a

ratio in isolation is meaningless; instead one should examine the trend of the ratio over as many years as possible. Following on this argument, ratios were computed for ZB Bank for the years 2009 to 2011 to gauge the performance of the bank since dollarization;

4.8.1 Liquidity Ratios

	<u>2009</u>		<u>2010</u>		<u>2011</u>	
Current ratio	2.43	,1:	1.04	,1:	1.06	,1:
Debtors collection	218.07	Days	171.16	Days	333.00	days
Creditors turnover	102.69	Days	115.34	Days	310.35	days

A major concern of any analyst is whether the firm will be able to meet its short-term obligations out of its short-term assets. Bessis (2002) explains that by examining the amount of cash on hand and other current assets in relation to the maturing financial obligations, ratio analysis indicates a measure of liquidity. The first ratio to consider is the current ratio which shows the aggregates of money available against the aggregate of money requirements all in the short- term. In 2009, ZB Bank had \$2.43 worth of current assets for every \$1 of current liabilities. This deteriorated to \$1.04 in 2010 and then slightly improved to \$1.06 in 2011. Although this trend shows a general decline in liquidity, the company is still able to support its short-term debt from its current assets.

Ordinarily, the quick ratio is considered a more stringent test of liquidity as it adjusts for stocks and other less liquid assets such as prepaid expenses in order to examine the ability of the business to cover its short-term obligations from its “quick” current assets only. However, in the banking business there is no stocks to talk about. Instead, the average collection periods give a very strong indication of liquidity because the quicker debtors are converted to cash, the more liquid the business becomes. The most relevant comparison here is between the debtors’ period and the creditors’ period. In the years 2009 to 2011; the business was paying creditors before receiving cash from debtors, thereby putting a strain on cash-flow. Also, over the years the gap between debtor receipts and creditor payments narrowed from

115.38 days in 2009; 55.82 days in 2010 to 22.65 days in 2011 to the detriment of the company. The bank senior management advised that the generally illiquid market conditions for the period under study meant that customer deposits (the creditors) were generally of a short-term nature whilst the borrowing clients (the debtors) needed a bit longer to repay their loans.

4.8.2 Gearing Ratios

	<u>2009</u>		<u>2010</u>		<u>2011</u>	
Equity ratio	92.32%		91.58%		95.55%	
Debt ratio	7.68%		8.42%		4.45%	
Debt / equity ratio	0.08	1:	0.09	1:	0.05	1:
Interest cover ratio	Negative	X	4.03	X	6.06	X

Dayananda et al (2010) state that the relationship of owner's equity to borrowed funds is an important indicator of financial strength. Debt requires fixed interest payments and repayment of the loan and legal action can be taken if any amounts due are not paid at the appropriate time (Lucey, 1996). Over the past three years, ZB Bank had a debt to equity ratio of less than 1, indicating a relatively high proportion of funds contributed by the owners thereby providing a cushion which shields their depositors against possible losses from default in payment. However, debt can contribute the business' profitability because it is capital injection that has tax shield benefits. As a result, the ZB Bank management bemoaned the placement of the bank under the US sanctions list as hindrance to the bank's ability to raise international capital hence the heavy reliance on shareholder support for funding.

Meanwhile, interest cover has been on an increasing trend from negative cover in 2009; to 4 times in 2010 and 6 times in 2011, thereby indicating increased capacity of the business to pay its interest bills from profits earned.

4.8.3 Profitability Ratios

	<u>2009</u>	<u>2010</u>	<u>2011</u>
Net profit margin	-23.06%	9.55%	22.01%
Return on total assets	-2.92%	1.04%	3.28%
Return on capital employed	-3.84%	5.25%	16.99%
Return on equity	-8.56%	5.73%	17.79%

The overall measure of success of a business is the profitability, which results from the effective use of its resources. Profitability is essential for long-term survival and is therefore the first and foremost purpose of a business, the reason for its existence (Lucey, 1996: p54). Since profitability is the result of a large number of policies and decisions, then it stands to reason that the profitability ratios will show the combined effect of liquidity, asset management and debt management on operating results.

For the three years under review, the net profit margin can be observed to be on an upward trend implying that turnover has been increasing at a superior rate than operating costs. Similar patterns are observed for the rest of the profitability ratios indicating a healthy profitability of the bank.

4.8.4 General Comment on the Ratios

The bank has been improving in all performance indicators over the years despite the difficult operating environment characterised by low levels of disposable income leading to no savings. The gearing ratios are indicative of a financially strong company with strong shareholder support though this could be because they have limited options owing to their OFAC listing. The main profitability indices are also quite strong confirming that the company is a going concern. Given the centrality of risk management in the business of banking, one is inclined to link the positive trend in the performance of the corporate with the effectiveness of the risk management strategies that are being employed.

4.9 Discussion of the Research Proposition

The study was done to test the proposition that “Local banks are not employing adequate risk management strategies to prevent financial distress as well as to enhance shareholder value.” The results of the case study show that ZB Bank generally has adequate strategies that are enough to prevent financial distress. The bank performance is quite stable as shown by the ratio analysis and they are meeting the capital adequacy regulations. However, the widespread view by the

research participants that the bank's strategies tend towards conservatism and are not flexible to the dynamic operating environment militate against profitability thereby failing to maximise shareholder value.

4.10. Chapter Summary

This chapter has presented, interpreted and discussed the results collected through a questionnaire and interview guide. The significant findings were matched with the literature review for comparison.

CHAPTER FIVE

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the entire research project is summarised; conclusions based on the study are drawn; recommendations are proffered; and limitations experienced during the study are highlighted. The chapter ends by citing the implications of the study findings on further research. Generally, the study established that the risk management strategies that are employed by ZB bank are adequate to avert financial distress, but they are deficient when it comes to enhancing corporate performance.

5.2. Summary of the Study

The study was carried out under the proposition that local banks are employing inadequate risk management strategies, using ZB Bank as a case. Against this background, the study was meant to answer the following questions:

- What risk management strategies are ZB Bank currently implementing?
- Are these strategies contributing to the performance of the Bank?
- Are shareholders of ZB Bank benefiting from the risk management strategies being employed by the bank?
- Does the bank have competent risk management strategies?

The study method took the form of a descriptive survey. A total of 47 questionnaires were sent out to collect primary data from the respondents at ZB Bank and 38 were returned, representing a response rate of 80.85% which is acceptable for the validity of the findings. Semi-structured interviews were used to probe for further information from key informants of the bank.

5.3. Conclusions

5.3.1 Profile of the Respondents

The respondents were deemed competent enough to give good insight to the nature of information solicited judging by the level of academic qualifications. Also the fact that all respondents held managerial positions in the various departments and the majority of them have served the bank for at least 5 years was a further advantage to the study because the participants are senior in the organisational hierarchy and are involved in the formulation and implementation of the bank's risk management strategies.

5.3.2. The current risk management strategies at ZB Bank

- The majority of the respondents overwhelmingly stated that each unit of the bank has clearly laid out risk management objectives, yet they also admitted that a significant segment of employees in the Credit Services and Consumer Banking departments are not well versed with the bank's risk management strategies. These departments are key risk generators but they have quite a significant number of untrained new employees. This mainly affects the bank's operational risk.
- There is a general belief throughout the bank that the Basel II framework for risk management represents the international best practices in risk management thereby putting blinkers on the bank's focus in the area of risk management. However, the study reveals that there are other more recent models such as the Basel III which the bank could consider.
- The bank seems to have done well on the integration of risk management into the corporate strategy as expressed by the majority of the respondents. It now needs to have a matching implementation strategy.
- A dilemma exists between the bank's goals of risk management and competitive strategy as expressed by a significant number of respondents who felt that the bank's risk management strategies have an element of rigidity that take away competitiveness.

- There is lack of communication both ways in the evaluation of risk management so that the strategy has feedback and carries every stakeholder's input.

5.3.3. The Suitability of the Current Risk Management Strategies

- Flexibility to the dynamic operating environment is critical for the suitability of any strategy. The results from the study show that the implementation of risk management strategy by the bank is viewed as being rigid and as such fails the flexibility test in the eyes of the risk managers.
- The insufficient allocation of resources to risk management strategy expressed by the respondents is a paradox to the goal of enhancing profitability using risk management. This brings to question the suitability of the bank's risk management implementation strategy.
- The lack of sufficient information dissemination once again features from the respondents with regards to the modern risk management frameworks. The bank seems to concentrate on the specialised business risk department when it comes to expert courses on modern risk management frameworks. In turn, the business risk department keeps the new found knowledge to themselves with no further dissemination to other stakeholders. This will result in an uncoordinated approach to risk management in the bank.
- A suitable risk management should enhance the growth of the organisation. However, a significant number of the respondents felt the bank was on the conservative side thereby stifling potential growth.

5.3.4 The Effectiveness of the Current Risk Management Strategies

- On compliance with the regulatory authorities, the bank is generally well on target as observed by the respondents. However, there are certain guidelines such as the cited example of the target bad book that should be cause for concern as the bank has not met them and they have a bearing on performance.

- The bank has a major challenge to address the lack of depth in expertise in some key risk generating departments such as Credit Services and Consumer Banking. The problem is deeper in the branches where a greater number of respondents admitted that their staff are not well conversant with the bank's risk strategies
- The discordant views on the area of the innovativeness of strategy between the "risk generating" Credit Services and Consumer Banking units against the "risk managing" Business Risk and Audit units does not augur well for the smooth function of the bank strategy. There should be uniformity of views in order to eliminate unproductive conflicts in the bank.
- Discordant views were also noted between the different hierarchies of junior and senior managers as well as between front and back offices, even in the same units, on the aspects of resource allocation and adaptability of the risk strategy. Again this is unproductive conflict that does not benefit the bank and calls for immediate intervention.

5.3.5 Evaluation of the Risk Management Framework

The major weakness noted on the bank's risk management framework was the deterioration of the credit risk. Whilst management seeks to blame the hostile operating environment, this is an indictment on the strategies that are being employed by the bank. A well-crafted strategy should be adaptable to a changing environment and as such the bank has failed the adaptability test. This is a view that had also been expressed by the respondents earlier on.

5.3.6 Evaluation of the Overall Effect of Risk Strategies on Corporate Performance

The ratio analysis conducted gives credence to the soundness of the bank's risk management strategies. The bank's previous rating using the CAMELS model was moderate and basing on the financial performance, it appears that the bank has maintained this rating.

5.4 Recommendations

The following recommendations are proposed on the back of the conclusions stated above;

- ZB Bank needs to eliminate discordant views within their structures through more effective communication strategies that include continuous feedback through workshops and regular e-mail correspondence.
- ZB Bank needs to immediately train their inexperienced staff in the area of risk management. In need, the bank could engage the services of external consultants to deliver expert knowledge. Regularly, the bank should conduct job knowledge audits in order to identify skills gaps timeously and take immediate corrective action.
- Top management at ZB Bank needs to reconsider their conservative approach to doing business but rather strive to balance risk and commensurate reward. This will bring in the required flexibility when implementing the risk strategy. A carrot approach can be introduced whereby employees are rewarded for bringing in profitable contracts.
- The bank's risk implementation strategy should be tied to their budgeting process so that sufficient resources are allocated towards the risk management function.
- ZB Bank needs more thorough credit assessment strategies in order to tame the deteriorating credit risk. One way would be to analyse their bad book and see which sectors are the culprits with a view to taking a sectorial approach to their lending policy.
- The ZB Bank Business Risk department should work more closely with the Economics and Strategy departments with a view to ascertain the risk developments in the market which may affect the bank's operations.

5.5. Areas for further study

- Are local insurance firms employing adequate risk management strategies?
- The current status of risk management of banks in developing economies
- The suitability of the Basel III Accord for risk management in developing economies

5.6. Chapter Summary

This chapter served as the closing chapter of the study where the whole research process and findings were summarized and conclusions drawn. Action-oriented recommendations were offered to improve the performance of the bank and areas of further study were proposed.

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APPENDICES

APPENDIX 1

UNIVERSITY OF ZIMBABWE GRADUATE SCHOOL OF MANAGEMENT

For Office Use: Questionnaire No.....

Questionnaire Topic: *Are Zimbabwean Banks employing adequate risk management strategies? - The case of ZB Bank.*

Dear Respondent

Hello. My name is **Clive Kopera** and I am a finalist year student at the Graduate School of Management at the University of Zimbabwe. I am studying towards a Masters Degree in Business Administration and in partial fulfillment of the programme we are required to carry out an academic research. I am conducting a study on whether *Zimbabwean banks are employing adequate risk management strategies*; using *ZB Bank* as my point of reference.

Please feel free and comfortable in responding to this questionnaire. No one will know who you are since your name is not required and your responses will remain confidential. There is no wrong or right answer, you just need to respond to the questions to the best of your knowledge. Please also note that your participation in this study is voluntary.

Thank you in advance for taking your time to complete the questionnaire. The researcher can be contacted on Cell 0772 415 181 or email ckopera@zb.co.zw if you have any queries that need clarification.

SECTION A: Demographic Information

Please **Tick** in the appropriate Box

1. Your age

Below 25 Years	
25-35 Years	
36-45 Years	
46-55 Years	
Above 55 Years	

2. Gender of Respondent

GENDER	
Male	
Female	

3. Your highest academic qualification

Certificate Level	
Diploma Level	
Undergraduate Level	
Masters Level	
Doctorate Level	

Other (specify).....

4. Your current position in ZB Bank?

Relationship Manager	
Branch Manager	
Business Risk Manager	
Audit Manager	
Human Resources Manager	
Economic Analyst	

Other (specify)

5. Length of service with the Bank?

1 – 5 years	
5 10 years	
10 – 15 years	
15 or more years	

Section B: The current risk management strategies

This section intends to draw attention to the current risk strategies at ZB Bank. Please **tick** in the applicable box. Mark one box only.

No.	Proposition	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	The risk management function occupies an integral part of the organization's business strategy					
2.	The bank strictly applies the modern models to risk management in its operations					
3.	The bank's risk management policies are benchmarked to international best practices					
4.	The bank uses its risk management strategy as a source of competitive edge					
5.	Each unit of the bank has clearly laid out risk management objectives					
6.	The bank regularly evaluates its risk management strategies					

Are **all** staff members in your operating unit fully conversant with the bank's current risk management strategies?

YES ☐

NO ☐

Please explain your answer to the

above.....

Section C: The adequacy of the current risk management strategies

This section intends to analyse the adequacy of the current risk strategies at ZB Bank.

Please **tick** in the applicable box. Mark one box only.

No.	Proposition	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	The risk management strategies are well understood by all levels of concerned staff					
2.	The risk management strategies currently employed by the bank are highly adaptable to the operating environment					
3.	The concept of risk management features strongly in the bank's corporate vision and mission					
4.	Sufficient resources are being channeled towards the risk assessment functions of the bank					
5.	There has been sufficient information dissemination to officers in risk taking divisions on the modern risk management frameworks					
6.	The bank's risk management strategies facilitate organic growth in business					

In your view, does the bank produce innovative risk management strategies that enhance its overall performance? YES ☐ NO ☐ NOT SURE ☐

Please explain your answer to the above citing possible areas of improvement.....

.....

Section D: The effectiveness of the risk management strategies

This section intends to measure the usefulness of the current risk strategies at ZB Bank.

Please **tick** in the applicable box. Mark one box only.

No.	Proposition	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	There are regular reviews by senior management of the bank's performance against its approach to the risk management function					
2.	There is adequate communication throughout all concerned staff regarding the effectiveness of the bank's risk management strategies					
3.	The continuous adoption of new risk management frameworks would be one way of improving the overall performance of the bank					
4.	The bank's attitude towards risk has been an enabler in the goal of sustainable profitability for the bank					
5.	The bank's risk management strategies complement those from the regulatory authorities					

Would you say that the risk management strategies that are being employed have had a positive contribution to the overall performance of your unit?

YES ☐

NO ☐

Briefly state your reasons to the above answer.....

.....
.....
.....
.....

THE END (Thank you for your time)

APPENDIX 2

Interview guide on whether Zimbabwean banks are employing adequate risk management strategies; using ZB Bank as a case study

Section A: Current Risk Management Strategies at ZB Bank

1. Where does the function of risk management fit in the bank's business model?
2. What are the specific risk management strategies currently being employed?
3. What stimulates the risk management function of the bank? Are they internal or external systems? How?
4. How do you rate yourselves as a bank, among your peer group, in terms of risk management?
5. What are some of the strengths and weaknesses in your risk management strategies?

Section B: The Adequacy of the current Risk Management Strategies at ZB Bank

1. To what extent has the totality of the bank risk officers embraced the current risk management strategies? Are there discernible skills gaps?
2. How often are your risk management strategies reviewed, if at all?
3. Does the bank have a model for evaluating its risk strategies?
4. Have you ever observed changing performance trends on introducing or modifying new risk strategies?
5. What priority is given to risk management function in the bank's budgeting process?

Section C: The effectiveness of the current Risk Management Strategies at ZB Bank

1. Have you ever had to make fundamental modifications to your risk management strategies during the last decade? If so, how many times?
2. Has the increased level of competition in the financial sector ever forced you to re-design your risk management strategies? If so, in what ways?
3. How have the bank's risk management strategies related to the regulatory environment? Have you ever had to amend your risk strategies in response to regulatory proclamations? If so, how many times in the last decade?

THE END