

MIDLANDS STATE UNIVERSITY



FACULTY OF COMMERCE

DEPARTMENT OF BANKING AND FINANCE

**AN INVESTIGATION OF HOW FINANCIAL INSTITUTIONS
INTERGRATE RISK INDICATORS INTO CORPORATE
PERFORMANCE MANAGEMENT.**

BY

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*This dissertation is submitted in partial fulfilment of the requirements of the Bachelor Of
Commerce Honours in Banking and Finance Degree in the Department of Banking and
Finance at Midlands State University*

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DEDICATION

This is for you Mum and Dad for your unconditional love and support.

I love you

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Firstly I thank the Almighty Lord for giving me the strength, knowledge and chance to do the study. For his grace is sufficient to us. My warm gratitude then goes to my supervisor, Ms T Santu for her advice and support during the time of the study. Special thanks goes to my father and mother, Mr and Mrs D Dhliwayo for their financial and moral support. Not forgetting my special friends Marvellous, Cosum, Caroline, Petronella, Trevor, Comfort, Afareishe and Tariro who were always my backup team in prayer. My sincere gratitude also goes to all the respondents for being a source of data. I love you all appropriately. God bless you

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ABSTRACT

This study was carried out to investigate on how financial institutions integrate risk indicators into their corporate performance management. The major objective of the study was to find out how financial institutions go about in identifying risk indicators for the various risks they are exposed to, who is responsible for the process of measuring and monitoring risks and how they report risk profiles and performance at the same time. The other objectives were to identify the various key risk indicators that banks are currently using and how they identify and select the most appropriate indicators. Other authors who have previously explored this area mainly looked at KRIs as an operational risk management tool, while others looked at how banks can use to KRIs to recover from the effects of financial turmoils like the subprime mortgage crisis of 2004 and the 2008 global financial crisis. A descriptive research design was followed with data gathered from primary sources using a questionnaire that was designed for both senior and junior management. The research also made use of secondary data sources like financial statements of various banks that were consulted as well as RBZ publications. Seven out of the eighteen banks that operate in Zimbabwe were used in the study. The findings of the study showed that most banks use KRIs for managing operational risk, they have not explored other risks yet. It was also discovered that senior management and the board of directors were responsible for policy formulations and most banks are still at preparatory stages interms of the incorporation of KRIs into a formally approved policy. The RBZ seem to be making strides in ensuring rigorous risk management systems and by so doing provide a basis that banks can use to develop sets of KRIs. Through its regular onsite risk-based supervisions provide a risk assessment system that provide each bank's risk profile in relation to inherent risks. The RBZ also uses the CAMELS regulatory to assess the performance and risk exposure of banks. The study concluded that for any bank to benefit from using Key risk indicators there has to be an understanding of the risk factor in question. The reporting of KRIs is done mainly on a quarterly basis of which it is insufficient. It was also concluded that key risk indicators are closely related to key performance indicators and if a financial institution can properly monitor the two then it is possible to monitor risk and performance at the same time.

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CHAPTER ONE: INTRODUCTION

1.1 Introduction

Risk management issues have grown in importance in both financial and non-financial institutions, mainly as a result of rapid changes of the business environment. Risk emanates from any angle of the organization and affects performance of an institution in a negative manner. Thus it is important for an institution to be always abreast with its risk profile. This requires the use of certain matrices that provide insights into a bank's risk profile, these are called key risk indicators. Financial institutions have widely accepted the concept of risk management. Many banks have since adapted to the qualitative and quantitative measure put forward by the Basel committee on Banking supervision (2003). Though these measure have been accepted it seems that there are still challenges in terms of implementation, monitoring and proper integration into corporate performance management.

1.2 Background to the Study

BCBS, (2003) defined risk Indicators as statistics and/or metrics which can provide insight into a bank's risk position. They are typically used to give 'red flag' warnings to senior management. Scarlet et al (2013) propounded that risk indicators provide a forward direction and information on risk which may or may not exist and is a warning for future action. These indicators tend to be reviewed periodically on a monthly or quarterly basis to alert banks of changes that may be indicative of risk concerns, (Coleman, 2009). Such indicators may include the number of failed trades, staff turnover rates and the frequency and/or severity of errors and omissions.

A study by larker et al (1999) indicated that even non-financial measures can be used as indicators of financial performance. They used customer satisfaction as their case study and it indeed showed that any indicator can be applicable as long we know what we want to achieve.

It is usually problematic to identify metrics that can be used to monitor key risks. CBE, (2014) found that while establishing Key Risk Indicators, (KRIs) is important for risk management's success, even risk managers struggle with developing effective KRIs. The process of developing key risk indicators start by identifying the strategic risk we need to manage so as to achieve our goals and objectives.

It is also important to note that every type of risk has different indicators that can be used. Standard and Poor's rating services looked at Credit risk indicators, they mentioned market signals like credit default swaps spreads as an indicator of credit risk. An article on the Finance and Debt Consolidation also indicated that the global financial crisis of 2007-2008 was to some extent based on the poor evaluation of Credit risk indicators. This turmoil compelled the major financial institutions to move towards foreclosures because they did not put much attention over the fundamental evaluation of credit risk. They indicated that credit card holders were rapidly defaulting over their debts due to economic slowdown and their weak financial capability, this phenomenon pressurized the financial institutions to safeguard themselves as much as possible by adopting the efficient Credit risk indicators in order to ascertain the probability of default or repayments. It is without doubt that if a financial institution keeps itself away from the accurate evaluation of these indicators, then most likely it is moving towards foreclosure because it has neglected the fundamentals which are very vital to survive in today's highly fluctuating economy. These indicators provide you with the latest and accurate information regarding debtors and enable you to avoid possibilities of their defaults.

Looking at the banking industry in Zimbabwe, it was relatively closed from 1980 to 1999. Signs of some disturbances began to be visible in 1998 with the fall of United Merchant bank due to bad loans, mismanagement and high exposure to CSC bills among other causes. What followed that was a series of banks failing with others placed under curatorship like Zimbabwe building society, and others eventually closing down like Genesis investment bank. Some if not all of these banks had uniform causes of failure. One is then left wondering if there were completely no signal of danger beforehand or it is just that management chose to ignore them.

Rodriguez and Chadha, (2016) noted that even though risk indicators are a useful tool in the management and monitoring of risk, they have not lived up to their maximum potential simply because financial institutions do not have a comprehensive risk culture. Some disasters have occurred within financial institutions because management chose to ignore the signals given by risk indicators. For example, in the credit risk management of a bank the quality of assets is always important. The quality is usually determined in terms of the extent of insider lending and lending to related parties. When insider lending grows beyond certain levels then it should be a sign to the bank's management that they are heading for disaster.

When Interfin bank failed in 2011, it reported an approximate level of insider loans of US\$2.9million, yet in actual fact they were US\$63.3million, which was far much beyond the acceptable level. The figures did not just sky rocket overnight but they accumulated over time. This means that management ignored a red flag signaling risk ahead and as a result the bank could not survive.

Some failures have also risen as a result of senior managers who just pay 'lip service' to regulators in terms of risk management yet in actual fact they do not even care of what happens on the actual ground. RBZ monetary policy, (2014) indicated that Interfin collapsed because of violation of prudential lending limits by three top managers of the bank. It is a known fact that when lending limits are exceeded then it is an indication that the bank could be exposing itself to liquidity risk. In this instance management avoided reporting alerts, regarding some important risk information, and acting upon them and as a result the performance of the bank dwindled. That could be reason why they reported insider loans that were less by US\$60.4million.

The Basell committee on Bank supervision (2003), put forth some qualitative and quantitative criteria to operational risk which require specific tools to adhere to them. Key Risk indicators (KRIs) can be regarded as such tools. However there is little guidance in the use of KRIs and thus making it so challenging to implement them, Institute Of Operational Risk (2010). Thus financial institutions must be able to aggregate key risk indicators and present their causal relationships and further link them to organization's strategy, objectives and performance indicators.

The relationship between risk and performance is surrounded by a variety of elements that may inhibit or conversely facilitate the integration of risk and performance management processes. It is also key to note that risk is often inversely related to performance management and as such performance tools can give information on risk easily. CIMA (2010), noted that incorporating risk into performance management processes can foster a better understanding of the overall organizational risk exposure and improve business report

1.3 Problem Statement

The collapse of banks in Zimbabwe have similar characteristics. Their causes are more or less the same. The most common issues are risk related issues, especially the failure to detect risk and take corrective action before it blows out of hand. A comprehensive risk culture usually works hand in hand with the financial performance and soundness of a bank. Thus bank failures witnessed in the Zimbabwean banking sector were a result of banks' complacency to act upon early signals of risk. Regionally and internationally owned banks in Zimbabwe seem to be sound and stable yet they operate within the same economic and regulatory environment with indigenous banks. This could only mean that there are disparities in terms of risk culture and the bank's alertness to its risk indicators.

1.4 Research Objectives

The main research objective of the study is to determine how financial institutions in Zimbabwe integrate risk indicators into corporate performance management.

- To establish various risk indicators that are used by financial institutions in Zimbabwe
- To identify basic fundamentals in identifying, specifying, selecting and implementation of quality indicators
- To determine how to monitor and report on KRIs so as to create a powerful management reporting
- To differentiate between the risk cultures of international banks versus locally owned banks in Zimbabwe

1.4 Research Questions

- How do financial institutions integrate risk indicators into corporate performance management?
- What are the various key risk indicators that are being used by financial institutions in Zimbabwe?
- What basic fundamentals do firms use to identify, specify, select and implement quality indicators
- How are KRIs being implemented and monitored in Zimbabwean financial institutions?
- What difference exist between risk cultures of international banks and local banks in Zimbabwe?

1.5 Significance of the Study

The study will assist in highlighting grey areas where the implementation of KRIs is lagging behind, and why banks are continuing to fall due to certain risks when there are measures that signal risk. The information thereof will be significant to risk control officers as well as senior management of various financial institutions in Zimbabwe. The study will also cover the gap that has been left out by many studies. A lot has been said about what can be done to maintain a sound banking sector in Zimbabwe but little mention has been made to the issue of risk indicators. The study shall also help the researcher in having a comprehensive understanding in the area of risk assessment and monitoring. It will also help the researcher to improve on research skills.

1.7 Scope of the Study

The study looks at risk indicators as important aspects of risk management, focusing on their integration into corporate performance management. The study is mainly looking at banks head offices and selected branches in Gweru. The study will cover the period from 2005-2015.

1.8 Assumptions of the study

- Information given is correct
- The institutions' policies remained constant during the time that the study was conducted.

1.9 limitations of the study

1.10 Definition of terms

1.11 Organisation of the Study

In this chapter the researcher was basically introducing the study mainly focusing on the background to the study, objectives of the study, research question, and importance of the study, limitations and de-limitations of the study, assumptions of the study and definition of terms. The next chapter will give a review of literature of some work that were done by other

researchers in this regard. The chapter that follows thereafter will look at the research methodologies employed by the researcher. Chapter four will look at data presentation and analysis the lastly the fifth chapter would look at conclusions, suggestions and recommendations that can be drawn from the study.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The chapter will focus on the review of literature regarding the study. It focuses on the theoretical ideas that relate to risk and performance management. The theoretical ideas of corporate performance management as well as key risk indicators are explored in this chapter. Some empirical studies by different researchers are also explored. The chapter ends with a summary of the views put forward by different authors.

2.2 Theoretical literature

2.2.1 Corporate Performance Management Defined

Gartner, (2001) defined corporate performance management as an umbrella term that describes the methodologies, metrics, processes and systems used to monitor and manage a business performance. It can also be defined as a framework that integrates strategy with business operations. It gives management a prospective and real time picture of what is actually going on across the value chain and provides a robust platform to support future growth, (PCW, 2009).

2.2.2 Key Risk indicators defined

Coleman, (2009) defined Key Risk Indicators, (KRI) as statistical measures that can provide a perspective into a company's risk position, they tend to be revised periodically (monthly or quarterly) to alert the company about the changes that may indicate risks. Alexander (2003) also defined KRIs as statistics and/or metrics, often financial, which can provide insight into a bank's risk position. Key risk indicators are metrics that are used by management to show how risky an activity or investment project is. An indicator is a key indicator if it serves a very important statement, (McLenaghan, 2006).

2.2.3 Risks in Banking

Risk refers to the degree of uncertainty and/or potential financial loss inherent in an investment decision.

Koch and Macdinald, (2014) have identified six types of commercial bank risks as credit risk, liquidity risk, market risk, operational risk, reputation risk and legal risk. Each of these risks might harmfully influence the financial institution's performance.

Oldfield and Santomero, (1997) mentioned eight risks that can bring any financial institution to a halt if not properly managed and these are systematic risk, interest rate risk, commodity

price risk, industry concentration risk, credit risk, counterparty risk, operational risk and legal risk.

RBZ report, (2014) went on to identify six types of risk that are mainly associated with poor corporate governance as Credit risk, compliance risk, reputational risk, settlement risk and business continuity risk.

PWC (2009) state that there are different types of risk: financial risk and, operational risk, reputation-related risk, and strategic risk. Interestingly enough, this is very close to the perspectives of Kaplan and Norton's balanced scorecard of 1992. Financial risk and financial performance are related in that operational risk matches the process perspective and strategic risk can be linked to the growth and learning perspective.

To manage the complexity of the banking world, it has become essential to ensure that risk and performance are well managed.

2.2.4 The changing face of risk

Crockford, (2005) noted that risk has always been part of us. But in today's world, it is coming in strange new shapes that the risk management practitioners of 15 years ago would hardly have recognised. Many changes in the role and operation of financial institutions over the past years have brought about a new way of regarding risk. According to MetricStream, (2016) the changes can be attributed to globalization, explosion of new businesses, growth in technology and gains in efficiency. These changes have not only brought tremendous economic growth but also a growing multitude of risk causing an important change in the approach to risk management. Some of the key changes include the introduction of standardized risk management principles to ensure basic safeguards for customers and investors. For example, BASEL II sets standards for risk management that need to be followed by all banks and financial institutions. (Basel committee on bank supervision, 2003).

Globalization and outsourcing of business process brought about change, in developing markets, which brought up a host of political, economic external risks and operating risks for banks and financial institutions. This requires a different approach to risk management. Operating efficiencies that necessitate just-in-time treasury and cash management is yet another key change that bank need to copy with. An increased focus on data and customer privacy has brought new risks to banks and financial services organizations. The advent of

electronic banking and introduction of legislation like Know Your Customer (KYC), Data Privacy Act, Data Retention, etc. has magnified the privacy risks.

RIMS, (2005) identified that another cause of these shifts emanates from various third parties from outside the organization that monitor the performance of an organisation day by day. These third parties include investors, rating agencies and regulators.

These changing trends in risk management mean that executive decision makers and risk managers within financial institutions have to deal with some basic issues. These issues may include, the top exposures of a financial institutions, both in terms of measured risks and unmeasured uncertainties, adequate understanding of the profile and mitigation of the potential losses from the top exposures and how much the financial institution is prepared to lose from all sources of risk over a given horizon (often a reporting period, but also over a shorter horizons) to achieve its overall long-term financial objectives.

2.2.5 Developing Key Risk Indicators

Key risk indicators are matrices or statistics that are forward looking that provide an insight on the risk position of an organisation, (McLenaghan, 2006). Young (2012) regard KRIs as matrices that can be used to monitor identified risk over time. He also noted that a KRI becomes a key when it tracks a risk exposure that could have a major influence open the organisation. These are used to monitor specific risk within an organisation, for example there are Credit risk indicator, liquidity risk indicators, and management capacity indicators.

Scarlet (2010) indicated that building a set of indicators requires skill and expertise. It involves identifying the matrices that are enough to cover a risk. They should not be too many because they will make it difficult to make a decision, also they should not be too little because they may be insufficient. It is important as well to note the events with low probability of occurrence but can be extremely risky if not attended to. Bostrom et al (2008) also added that when developing risk indicators managers should not only focus on the probability of occurrence without considering the consequences.

Davis (2007) stated that though the concept of KRIs may seem straight forward, it goes beyond just identifying the areas that could be of concern within an organisation. A lot of question would have to be answered like, is the right thing being measured? Are the measures being used accurate? Are the definitions clear? Can they be used to determine current exposure?

Scarlet, (2010) posted that KRIs independently or in conjunction with other risk environment related data, such as, loss events. Assessment outcomes, and issues offer considerable insights into the weakness within the risk and control environments. They act as metrics of changes in an organization's risk profile, but given the changing risk landscape, simply establishing them within a corporate protocol may not be enough.

2.2.6 Uses of KRIs

KRIs can be used in managing risk in a number of ways, for example:

Early warning.

KRIs can serve as an early warning mechanism for forthcoming risks. This allows management to take preventative actions. According to the Institute of Operational Risk (2010), when KRIs are selected appropriately they can provide a means of identifying emerging risk trends, current exposure levels and events that may have materialised in the past and which could re-occur.

Support risk assessments.

Indicators can also be used to support risk assessments by indicating whether pre-assigned thresholds or limits have been breached, and require the development and implementation of control measures.

Determine a realistic risk appetite.

KRIs can be used as an input to determine a realistic risk appetite. The Institute of Operational Risk (2010) states that an organisation is able to see whether its risk exposures remain within its appetite for risk or exceed it. Hence, the monitoring of KRIs is an important mechanism by which an organisation's management can assure that it remains within its stated appetite for risk.

Capital allocation.

KRIs can be used as a supporting tool to calculate an accurate capital allocation for risk. It is generally accepted that every organisation has a mechanism to measure and monitor its current levels of risk exposure, a process that KRIs can support. (Institute of Operational Risk, 2010).

The Institute of Operational Risk (2010) concludes that the KRIs are the most appropriate mechanism to satisfy the regulatory requirements, implying that there is an indirect regulatory requirement to implement and maintain an active KRI programme.

2.2.7 Characteristics of key risk indicators.

KRIs are measurable, they can be quantified in percentage form or numbers. They should also be able to measure specific risk at specific times as well as the readily understood and communicated on time. The figure below gives a summary of characteristics of KRIs.

Figure 1: characteristics of KRIs

Effectiveness	Comparability	Ease of use
<p>Indicators should</p> <ul style="list-style-type: none"> - Apply to at least one specific risk and one business function or activity. - Be measurable at specific point in time - Reflect objective measurement rather than subjective judgement - Track at least one aspect of the loss profile or event history, such as frequency, average severity, cumulative loss or near-miss rates; and - Provide useful management information 	<p>Indicators should</p> <ul style="list-style-type: none"> - Be quantified as an amount, a percentage, or a ratio - Be a reasonable precise and definite quantity - Have values that are comparable over time - Be comparable internally across businesses - Be reported with primary values and be meaningful without interpretation to some more subjective measure - Be auditable, and - Be identified as comparable across organisations (if infect they are) 	<p>Indicators should</p> <ul style="list-style-type: none"> - Be available reliably on a timely basis - Be cost effective to collect; and - Be readily understood and communicate

Source, Buhringer, 2011

2.2.8 Process of managing KRIs

According to Davis (2007), the risk appetite and tolerance of the organization are embedded into the risk management process via the KRIs. The level of KRI thresholds or tolerance is an indication and quantification of the organisation’s risk appetite. In this sense, what is required to determine the threshold in the design of the KRIs, is the initial collation and aggregation of the required data based on an appropriate data model.

Young, (2012) noted that the process of managing KRIs can be divided into two parts. The first part is to identify the KRIs and the governance issues. This can be done by means of the following steps:

Table 1: steps in the process of managing KRIs, part 1

Step 1	Identify and analyse a business process (process flow analysis)
Step 2	Perform a risk and control self-assessment of the business process to identify the inherent risk, control measures and residual risks of the business process.
Step 3	Prioritise the residual risks in terms of high, medium and low risks.
Step 4	Identify the indicators according to the characteristics of a KRI: that is the risk must be a high priority (high risk), the KRI must be quantifiable; and the data must be available.
Step 5	All stakeholders agree to a threshold for the KRIs.
Step 6	Register the indicator as a KRI.
Step 7	Determine the roles and responsibilities in managing the KRIs.
Step 8	Determine the reporting frequency and method, including escalation and reaction procedures should the report indicate a breach in the predetermined threshold.
Step 9	Determine the application of the KRIs as an input to calculate a capital charge for operational risk.

The second part is the actual managing of the KRIs according to the approved governance procedures, which could include the following steps:

Step 1	Collate the data required at the approved times.
Step 2	Draft the report according to the approved format.
Step 3	Submit the report according to the approved timeframes and to the approved role players.
Step 4	Develop and implement control measures if there is a breach in the approved threshold.

Step 5	Monitor the various business influences, which could lead to a change in the approved threshold, for example an increase in business, external influences on business processes.
Step 6	Submit KRI information to serve as an input for risk modelling.
Step 7	Submit KRI information as an input to determine the risk profile and the risk appetite of the organisation.
Step 8	Submit KRI information to test the risk and control self-assessment results.

In order to embed a process to manage KRIs, it is necessary that a financial institution must have an approved policy for managing KRIs. This policy should include the above mentioned steps and specifically the governance issues that will indicate the various roles and responsibilities of all stakeholders. Patterson, (2015) concluded by saying that the process of managing KRIs involves defining, monitoring and reviewing of the risk is being monitored according to set standards.

2.2.9 Role of technology in effective Measuring and Managing of KRIs

Given the advances measured by technology today, it is imperative to leverage it to look at different indicators in context of the risk data being collated for an organisation. If the organization is already using a risk management system, then it has its risk and control assessment data,. Issue data, and can combine existing KRIs effectively. KPMG, (2014) highlighted that technology is a key driver in enabling business, so it is imperative for management to consider technology in its definition of risk.

Technology enables the measurement of different risks categories, metrics , and even occurrences. The system is not only for risks, it be used for asset classes, objectives, controls, processes and business entities, (MainStream, 2016). Once these are established one can define thresholds (such as green. Amber and red)- which represent rising and dropping indicators, both critical and non-critical. Reporting and dashboards makes it easy to see critical areas for analyses, thresholds- breached or otherwise.

Technology can be used to create a comprehensive story when KRI thresholds escalate. Automating KRIs to give them longer lives, track remedial action when KRIs are escalated, track follow ups-are some the options available when technology is harnessed. An Enerst and young report also added on to say that harnessing technology to support risk management is the greatest weakness or opportunity for most organisations. Using technology also makes it

easier to explain to regulators the actions performed, and the situations that mandated them, since it leaves an audit trail which reveals these details clearly, (Patterson, 2015).

Risk management strategies can also be realised for specific, measurable, relevant and timely actions and responsibilities. Towards this objective, it is essential to understand KRI standards and measurement specifications. Furthermore, it is essential to determine the organization's analytics providers and the metrics consumers through various tools and resources.

One of the biggest of leveraging technology to manage KRIs is that it do away with manual efforts, which can be time consuming and cumbersome. Brodeur and Pegler, (2010) suggested the use of KRI dashboards as an alternative means that can be used to monitor the movement of KRIs on a single screen. Technology supports manual and automated data collation methods, enables easy definition of thresholds, and tracks issues and actions for breaches, (Estonia, 2010). It provides a single interface to define KRIs, KPIs, KCIs (Key Control Indicators) and risk appetites.

2.2.10 KRIs vs KPIs

One of the most commonly used indicators in performance management are the KPIs or Key Performance Indicators. Behringer, (2011) noted that while KRIs are used to indicate potential risks, KPIs measure performance. While many organizations use these interchangeably, it is necessary to distinguish between the two. KPIs are typically designed to offer a high-level overview of organizational performance. So while these metrics may not adequately offer early warning signals of a developing risk, they are important to analyse trends and monitor performance. KRIs highlights just the opposite.

A Key Risk Indicators differs from a Key Performance Indicator (KPI) in that the latter is meant as a measure of how well something is being done while the former is an indicator of the possibility of a future adverse impact, (Estonia, 2010). KRI gives an early warning to identify potential event that may harm continuity of the activity or project.

According to Scarlet, (2010) KRIs also the management understand increasing risk exposures in various areas of the enterprise. At times, they represent key ratios that the management can track as indicators of evolving risks, and potential opportunities, which signal the need for action. Others maybe more elaborate and involves the aggregation of several individual risk

indicators into a multi-dimensional score about emerging events that may lead to new risks or opportunities.

For example, in the banking sector, a bank may develop a KPI that will include data about defaulters. This KPI may highlight an event that has already occurred- a case where a client defaulted on his payment to the bank as per his loan contract. However, developing a KRI will be a more proactive way to indicate loan repayment trends before risk events occur.

Scarlet, (2010) noted that to balance risks and opportunities appropriately and to obtain the best possible alignment of performance management and risk management, each KRI should be linked to a KPI. KPIs have since been playing an essential role in performance management. And one the most effective ways to link performance and risk management is to integrate risk factors into the company's performance management tool of choice. By integrating these, a company can measure and monitor performance and risk at the same time, as part of the same process.

2.2.11 Measuring and Monitoring Risk using KRIs

Haneef, et al, (2012) stated that risk management in today's business world is regarded as a fundamental part of good management practice. In its broadest sense, it entails the systematic application of management policies, procedures and practices to the tasks of identifying, analysing, assessing, treating and monitoring risk.

According to Bessis, (2002) risk management in banking involves the entire set of risk management process and models that allow banks to implement risk-based policies and practices. It involves all techniques and management tools that required for measuring, monitoring and controlling risks. The range of models and processes encompasses to all types of risks: credit risk, market risk, interest rate risk, liquidity risk and operational risk, to mention a few.

Risk indicators are used to monitor the exposure, as early warning systems. They perform actions to minimize possible losses. Scarlet, (2010) suggested that monitoring risk in a financial institution can be done through a Dashboard interface. The dashboard is used to display all the require information on a single screen, clearly and logically so that it is easily understood by every user. Using dashboards for risk management assumes that it is clear what is being measured, especially the key risks indicators.

Beasley et al, (2010) noted that risk is generated by uncertainty and as such must be monitored using key risk indicators that do this while running the strategy chosen. Thresholds are set for KRIs in order to trigger actions to adjust the chosen strategies to combat the risk. When strategies are reviewed, there are established new risk indicators and new trigger points. This procedure increases the chance of achieving the objectives and strategies chosen by management.

KRIs reflects what is accepted or not and the preference to risk of the enterprise. Since KRIs can be measured, they help to communicate expectations to risk.

An important factor to note when using KRIs is the frequency of measurement. Usually the more frequent an indicator is reviewed, the more representative information it will give. At times frequent measurement of an indicator will show relatively small changes in risk profile. In these circumstances it is important to consider the trend before drawing conclusion. The trend indicates if the exposure to a risk is decreasing or increasing.

If a threshold was exceeded, the risk manager automatically receives a message, through which is ordered to undertake urgent remedial actions. The exceeding of thresholds is indicated by the yellow light of the monitoring risk semaphore. The threshold is the limit or the boundary that once it is passed it gives a signal to the enterprise about the possibility of a significant change in the risk exposure, (Scarlet, 2010). The risk management need attention when establishing the thresholds.

2.3 Empirical review

2.3.1 The use of key risk indicators by banks as an operational risk management tool: A South African perspective.

Young, (2012) carried out a study on South African banks on the use KRIs as an operational risk management tool. The research provided an insight into the use of key risk indicators as an operational risk management tool by South African banks and indicated their level of preparedness to comply with the criteria. There seems to be a general lack of understanding of the underlying theory and concept of the criteria to use key risk indicators and the advantages of using key indicators are not fully exploited.

He used a questionnaire to collect information and the aim of the questionnaire was to determine whether the banking industry in South Africa is using the concept of KRIs as an operational risk management tool and to determine the level of implementation and

knowledge of employees who are involved in this process. He used junior and middle managers from the banking industry of South Africa as his target group.

From his findings, 51% of the respondents indicated that they understand the concept of risk indicators as a risk management tool to a full degree, while 49% understood it to a lesser degree. As such, he concluded that all the respondents understood the concept of KRIs as a risk management tool. More than 70% of the respondents deemed KRIs to be moderately to fully define as a risk management tool by their organization. 55% of the respondents indicated that KRIs serve as early warning indicators to a moderate degree, clearly showing a lack of effective use of the methodology as the risk management tool. From that he concluded that the use of KRIs was still at grass-roots level in the banking environment and being exploited to the maximum as a risk management tool.

From his findings it is evident that KRIs were being used to some degree (50%) as a decision making tool yet another indication that KRIs were not used to their fullest extent when it comes to assisting management in making decisions. Of the respondents, 8% and 20% indicated that the KRIs were being used to full degree and to a degree of decision-making respectively. Therefore, it was clear that there was a definite movement in the right direction to use KRIs for decision-making; however, the large percentage (50%) that indicated the use only to some degree, illustrating that there was still much room for improvement. In addition, the responses also indicated that changes to KRIs scores are monitored from a moderate (35%) to some (28%) degree, which imply that the use of KRIs was still at an average implementation level. 20% Of the respondents indicated that KRIs were being used to moderate degree and 50% indicated to some degree. The majority of the respondents (75%) who indicated to some degree, to no degree and do not know, believed that the KRIs were not being used as a management tool to determine the organization's risk appetite.

His overall conclusion was that the KRIs were still being managed at a level where it does not provide adequate information for management to make corrective or preventative decisions. As such, it seems that KRIs are mostly still in a developmental phase and not being used adequately as a risk management tool.

2.3.2 The Risk Management Association

The risk management association (RMA), (2005) conducted a survey in the U.S of 38 financial institutions on the subject of KRI programmes. They found out that, while most

(one third to one half of respondents) are still in the planning stages, they have intentions to pursue almost all the specified objectives for such programmes. The RMA survey also asked respondents to indicate how they expected KRIs to help them achieve specific business-related objectives. Again, most financial institutions were still in the preparatory stages, but expressed their intent for virtually all of the specified objectives. In addition to those planning for these objectives, a further one-sixth to two-fifths were already rolling out plans to achieve these same objectives, or they had completed their implementation. The most popular objectives are to aggregate, analyse and report risk profile changes at the corporate level and to report control performance at the business unit level. Also, most organizations already use KRIs with specific thresholds that trigger intervention or escalation. The only objective that received notably lower focus was that of estimating capital, where the majority of respondents indicated that they have not started to think about this potential application of KRIs.

2.3.3 Using KRIs to recover, improve and maintain institutional performance.

Behringer, (2011) carried out a study which focused on community banks in the U.S. His study was mainly motivated by the closure of 369 insured financial institutions between late 2008 to June 2011. The failures were mainly precipitated by the meltdown in the subprime mortgage lending industry. The primary causes for the continued stress on the industry were concentrated exposures to commercial real estate, amplified enforcement action by examiners, less stringent risk management monitoring activities. He noted that community banks exposed themselves to excessive commercial real estate, which was increased from 168% in the 1966- 2000 to 289% in the 2005-2010. As a result of these high exposures the regulatory requirements were thus increased. From his study he concluded that in this changing environment, it is critical that financial institutions identify and develop forward looking in KRIs that are tied to key business, regulatory and reputational risk. For performing institutions, these KRIs would help in improving their enterprise risk management as well as maintain performance and mitigate risk. In his finding he also highlighted that it is important for a financial institution to assess its current position and determine its performance relevant to its peers or industry. The next thing would be to benchmark the institution against industry data for items that are the substance of CAMELS regulatory structure. He provided an example of how a financial institution can go about identifying a metric as a leading indicator of risk.

Figure 2: leading indicators using CAMELS

	Potential KRI	Critical linkage to emerging risk	Risk mitigation activity
Capital adequacy	Asset growth outpacing capital growth	Organic capital growth is insufficient to support current level of asset growth. High levels of growth not supported by earnings suggest high risk growth may be occurring, which increases the risk of loss in the future periods. Furthermore, the lack of capital growth makes the institution vulnerable to adverse regulatory and operational risk in the event of losses resulting from increase in asset size without corresponding increase in capital levels.	<ul style="list-style-type: none"> Analyse root cause of growth changes to determine if it is consistent with the institution's tactical and strategic goals. Identify and eliminate or modify any activities that are inconsistent with agreed-upon strategies.
Asset quality	Increase in commercial vacancies in the institution's geographic lending area.	Leading indicator of declining business activity within lending area which has a direct impact on commercial real estate segment of loan portfolio and an indirect impact on all other aspects of the portfolio.	<ul style="list-style-type: none"> Proactively identify marginal credits susceptible to e contraction and take prudent actions to mitigate losses within the loan portfolio.
management	Increase in approvals of policy exceptions.	Increases in the frequency and volume of policy exceptions are indicative of an increasing appetite for risk or out dated policies.	<ul style="list-style-type: none"> Determine if any trends exist related to the exceptions and if the exceptions are due to acceptance of un due risk or are the reflection of an out dated policy governing the applicable transactions. The outcome of the analysis will determine the appropriate next steps to mitigate risks associated with KRI.
Earnings	Increase in percentage of interest-only loans to total loans.	Root causes may include increase in modifications to borrowers experiencing liquidity issues resulting in abatement of principal; loosening of credit	<ul style="list-style-type: none"> The increase in interest-only loans as a percentage of total loans results in near-term earning preservation at the expense of long-term asset quality and earnings performance.

		underwriting standards; or increase in higher risk lending activities (e.g. acquisition and development/ construction loans).	Management should assess the appropriateness of the increase relative to established tactical and strategic goals and the impact on the overall risk profile of the institution. Based on this analysis, next steps to reduce the ratio and to manage existing exposure to mitigate future losses can be implemented.
Liquidity	Significant changes in funding mix period to period.	Changing rate environment or other internal and external factors maybe straining existing liquidity sources, resulting in reliance on higher-priced deposit products or, if available, wholesale funding sources.	<ul style="list-style-type: none"> • Review of funding sources and available liquidity should be compared to existing policies and to existing strategies to determine if adjustments are necessary. • The Cash Flow Projection stress test model should also be updated to reflect these changing assumptions and to assess the overall liquidity risk profile of the organization, given the changes identified. • If necessary, remediation plans-including identification and establishment of alternative liquidity sources-should be executed as a result of CFP stress test results.
Sensitivity	Increase in duration of investment portfolio.	Given the current interest rate environment, an increase in the duration of the investment portfolio may reflect investment activities that are creating long-term rate risk issues in the pursuit of short-term earnings gains.	<ul style="list-style-type: none"> • Review of the magnitude of the change in duration should be completed to understand the overall impact on ALM and liquidity model. • Given current rate environment, as duration increases, the institution's exposure to reprising risk and reduced future earnings and tighter net interest margins increases. • Compare the actual duration to agreed-upon policy and strategy parameters and undertake any necessary rebalancing transactions appropriate to return to established parameters.

Source, Behringer 2011

2.4 Summary

This chapter looked at the several propositions that were put forth by various authors. Corporate performance management and key risk indicators were defined in this chapter. Theoretical literature was explored, covering the changing face of risk, developing KRIs, uses and characteristics of KRIs, process of managing KRIs and the role of technology and KRIs and KPIs were compared. Empirical literature review covered some studies that were done in U.S, South Africa and Europe. From the literature that was reviewed, most studies revealed that the implementation of KRIs on African countries. The next chapter will focus on the research methodologies.

CHAPTER 3 RESEARCH METHODOLOGY

3.1 Introduction

The main focus of this chapter is on different techniques that were employed in gathering information from respondents. This chapter gives defines the research design as well as the research method that was used in carrying out the study. The research population of the bank was identified as the banks that operate in the Zimbabwean banking industry. Out of this population the research sample was thus defined.

3.2 Research design

This research followed a descriptive research design. This research design was used basing on the ultimate objective of this study to try and find out how financial institutions are integrating risk indicators into corporate performance management. The research also sought to find out what is going on in financial institutions in terms adoption, implementation and reporting of risk indicators in financial institutions. Thus a descriptive approach was deemed appropriate.

This research is predominantly a quantitative research relying primarily on financial data obtained from annual reports and audited financial statements of the sample banks under study. Questionnaires are also used to compliment the secondary data obtained from annual reports and financial statements. Qualitative research is not appropriate for this study since it emphasizes the words rather than quantification of data.

3.3 Research Population

The study targeted the 18 of the 19 banks that operate in the Zimbabwe banking industry. The last one was left out since it is currently under judiciary management. Senior and junior managers who are involved in risk management, within the banking industry were identified as the target population

Table 3.1 Operating Bank Institutions

Type of Institution	Number
Commercial Banks	13
Merchant Banks	1*
Building Societies	4
Savings Bank	1
Total Banking Institutions	19

**Tetrad under provisional judicial management of the Deposit Protection Corporation*

Source: RBZ Monetary Policy, January 2016

3.4 Research Sample

The researcher made use of the stratified random sampling technique. Banks were first grouped into domestic and international. With the domestic stratum banks were further categorized into commercial banks, building societies and savings banks. Simple random sampling was then conducted in each stratum to pick out specific banks.

Lucy (2006) stated that 10 % of the target population is sampled when the population is above 200 and 40 % of the population is sampled when the population is below 200. In this research the researcher's targeted population is 18 banks, thus the sample size is (40% of 18). In this research the sample size which the researcher used is 7 banks. Senior and middle managers were identified as the target group. A total of 16 questionnaires were thus issued.

Table 3.2: Sample size

Elements	Sample size	Senior managers	Junior managers
Commercial banks	3	3	3
Building Societies	1	2	2
Savings Bank	1	2	2
International Banks	2	1	1
Total	7	8	8

3.5 Data Collection sources and instruments

The researcher made use of both Primary and Secondary sources of data in coming up with the data needed to fulfil the research objectives.

3.5.1 Secondary data

The researcher made use of some articles that were published by the reserve bank of Zimbabwe (RBZ) pertaining to the issue under discussion. Published financial Statements of the various financial institutions provided insights on issues regarding the risk culture and appetite of the institutions. They also give a reflection of how the institution manages its assets and liabilities, and other potential areas of risk.

3.5.2 Primary data

Primary data is original and raw data that is gathered from the field of interest of the research, with the intention to satisfy the research objectives and question. Data obtained would be first hand for the sole purpose of that study. Questionnaires were administered to collect information from respective respondents.

3.6 Research instruments

3.6.1 Questionnaires

The researcher utilized both closed-ended and open-ended questions in designing the questionnaire. A structured questionnaire helped to reduce the respondent's time, thinking

and effort. Open ended questions required respondents to answer in with their own words and thus widening their scope of response .Unstructured question offer the respondent the opportunity to give more information other than that which is confined within the structure parameters. Closed-ended questions required respondents to choose from the given responses.

3.7 Data Validity and reliability

In this research to ensure validity of the instrument, the researcher worked closely with the supervisor to ensure that all the data gathered through questionnaires and document analysis must be directed at addressing the research question for the research problem under study. The questionnaire was designed in a simple manner using simple language. A pre-test of the questionnaire was conducted and information gathered was treated with confidentiality. Triangulation was also used in confirming results and to demonstrate reliability and validity of the gathered data since various sources of data were consulted.

3.8 Data presentation and analysis plan.

Graphs, tables and pie charts were used to present, interpret and analyze the quantitative data collected from the respondents. Some descriptive narrations were given to interpret secondary data. Percentages were used as a basis for formulating the graphs. On some issues a likert scale was used to present the data gathered from the questionnaire.

3.9 Summary

The chapter focused on the items that relate to research methodology, research design and instruments used for the research. A descriptive research design was used in the study using mainly quantitative data. Eighteen banks were used as the research population. The research sample was made up of sixteen respondents from seven banks. A questionnaire was used to gather data. Some secondary data sources like financial statements and RBZ publications were also consulted in gathering data. A pilot test as well as triangulation were done so as to validate the data. The following chapter focuses on data presentation and analysis and discussion of results.

CHAPTER 4: DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter focuses on the presentation and analysis of data that was collected from different sources. Various instruments were used to present the data, these include tables, charts, graphs and statistical descriptions. Interpretation to these tools were given and an analysis of the results also done.

4.2 Analysis of response rate

Questionnaires were issued to respondents in seven banks. The number of questionnaires issued as well as the responses are indicated in the table 4.1 below.

Table 4.1 Questionnaires Response rate

Number of questionnaires issued	16
Questionnaires returned	14
Questionnaires fully completed	10
Response rate	87.5%

Source: Raw Data

The response rate of 87.5% was considered to be sufficient and a true representation of the target population.

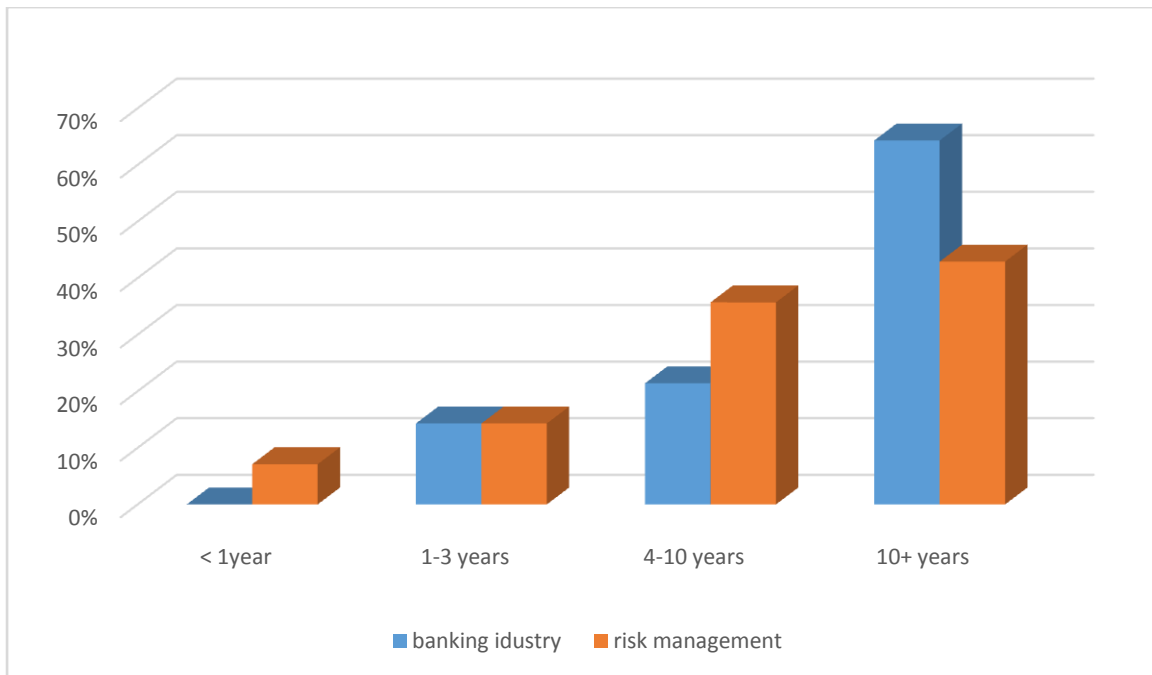
4.3 Analysis of primary data.

Questionnaires and interviews were used to gather primary data and the findings are discussed below.

4.3.1 Work experience both in banking industry and risk management department.

The questionnaire required respondents to indicate their years of working experience in the banking industry and in the risk management department respectively. The responses are presented in the graph below.

Figure 4.1 work experience



Source: Raw Data

All respondents have a working experience of more than one year in the banking industry and 7.1% only in the risk management department. 64.30% have more than 10years experience in the banking industry but only 42.9% have been working in the risk department. 21.4% have been working in the in the banking industry for 4-10 years and 35.70% have been working in the risk department for 4-10years.

From the findings above it shows that the people who are involved in the risk management have a working experience of more than a year. This is in line with the proposition by Scarlet, (2010)that developing KRIs requires experience and expertise because of its complexity

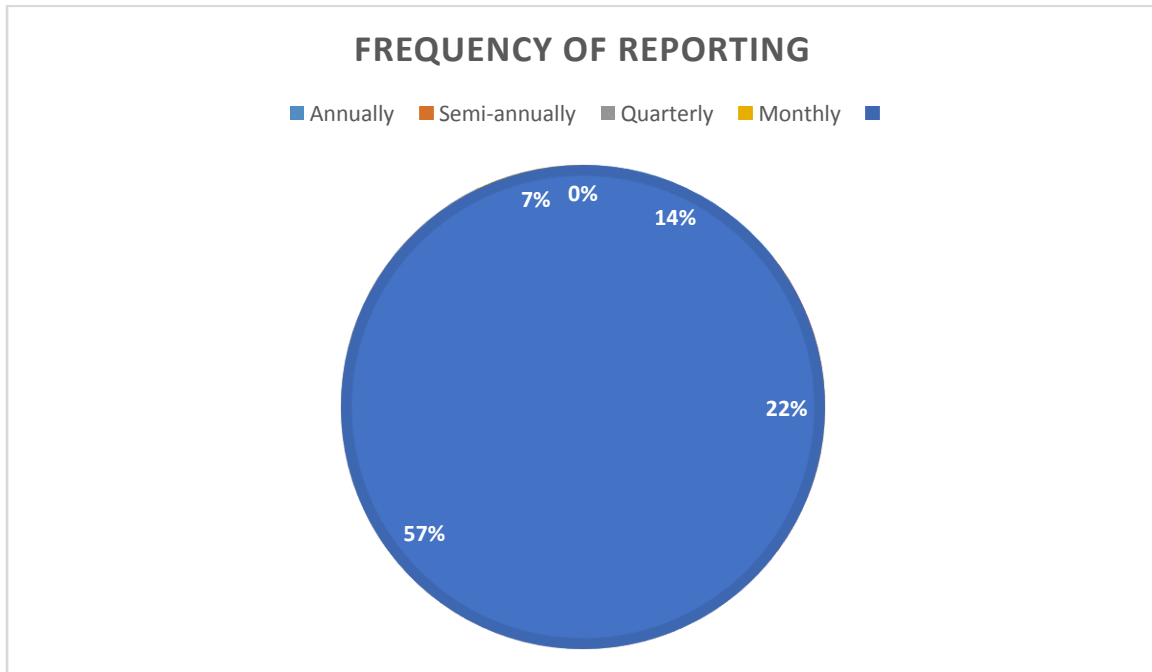
4.3.2 Understanding of KRIs as a risk management tool

Respondents were asked to indicate their understanding about the use of KRIs as a risk management tool. The use of KRIs as a risk management tool is moderately understood, (50%), by banks while 28.60% only fully understand and 21.40% somewhat understand. Respondents indicated that the understanding that they have regarding KRIs is only limited to operational risk indicators since they are the ones that they mainly use. It is almost impossible to use something that you don't understand how it is used. The level at which institutions integrate KRIs into corporate performance management is influenced by the understanding that the management has regarding the aspect.

4.3.3 Frequency of reporting and reviewing KRIs

Respondents also provided their responses on how often they report and review their risk indicators.

Figure 4.2 Frequency of reporting



Source: Raw Data

57% of respondents indicated that they report risk indicators on a quarterly basis. 22% reported on a semi-annually basis, only 7% report on a monthly basis. Considering the nature of risk indicators this frequency of reporting is insufficient. Scarlet, (2010) considers frequency of measurement as an important factor when using KRIs. Usually the more frequent they are reviewed the more representative information they will give.

4.3.4 KRIs and KPIs being used by financial institutions

Respondents indicated the KRIs and KPIs that they use in their organizations. They mainly use operational risk indicators. The findings are summarized in the table below.

Table 4.2 KPIs and KRIs

Key risk indicators	Key performance indicators
Operational risk indicators	Cost to income ratio
<ul style="list-style-type: none"> Exceeding teller limits 	Loan to deposit ratio
<ul style="list-style-type: none"> Policy exceptions 	Liquidity ratio

• Employee turnover rate	Total Capital adequacy ratio
	Loan loss ratio
	Impairment stock/gross advances
	Classified debt/gross advances

Source: Raw Data

Almost all the banks use key risk indicators to measure and monitor operational risk exposures only. The Basell II framework provided some guidelines on the measurement and monitoring operational risk and stipulated the use of KRIs by financial institutions. This is the major reason why banks are using risk indicators for operational risk only. KRIs provides insights into the risk profile of a bank not just operational risk, (Alexander, (2003) and the BCBS, (2003)). This means there is still a lot to be done in terms of the usage of KRIs since only one out of so many risks is being considered at the moment. Concentrating on a single risk on pose potential problems in that adverse effects may emanate from other areas other than the one we are focusing on.

4.3.5 Relationship between Key risk indicators and Key performance

Respondents also indicated how they relate KRIs and KPIs within their organizations. 71.40% of the respondents indicated that there is a relationship that exist between KPIs and KRIs. 14.30% indicated that there is no difference between the two, they are just two sides of the same coin. The other 14.30% did not respond to this question. Whilst other financial institutions may view these two as the same thing, they measure two things that are different. While KPIs are used to give information on events that have already occurred, KRIs are proactive and can be used to give information before the event occurs, (Behringer, 2011)

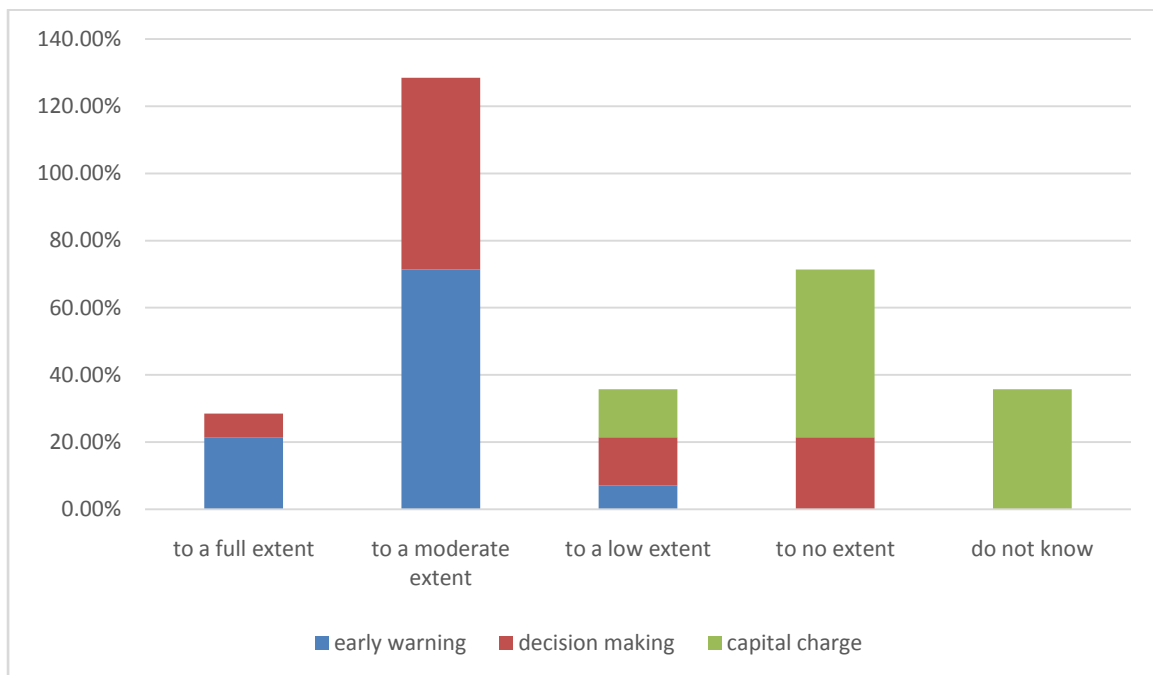
4.3.6 Criterion for Identification and Selection of appropriate KRIs

Risk indicators have to be properly picked so that they achieve their desired results. 85.7% of the respondents indicated that the KRIs that they use depend on the on the risk factor that is in question. Various risk classes fall under operational risk and as such the specific class under review determine the KRI to be used. 14.30% indicated that on top of first identifying the risk factor. They indicated that they select KRIs that are easily understood in common business language and that are tied to the risk tolerance or appetite of the bank. This is in line with Behringer’s proposition that KRIs should be effective, comparable and easy to use.

4.3.7Use of KRIs.

Respondents provided their responses on the three uses of KRIs that were provided. The responses are presented on the graph below.

Figure 4.3 Uses of KRIs



Source: Raw Data

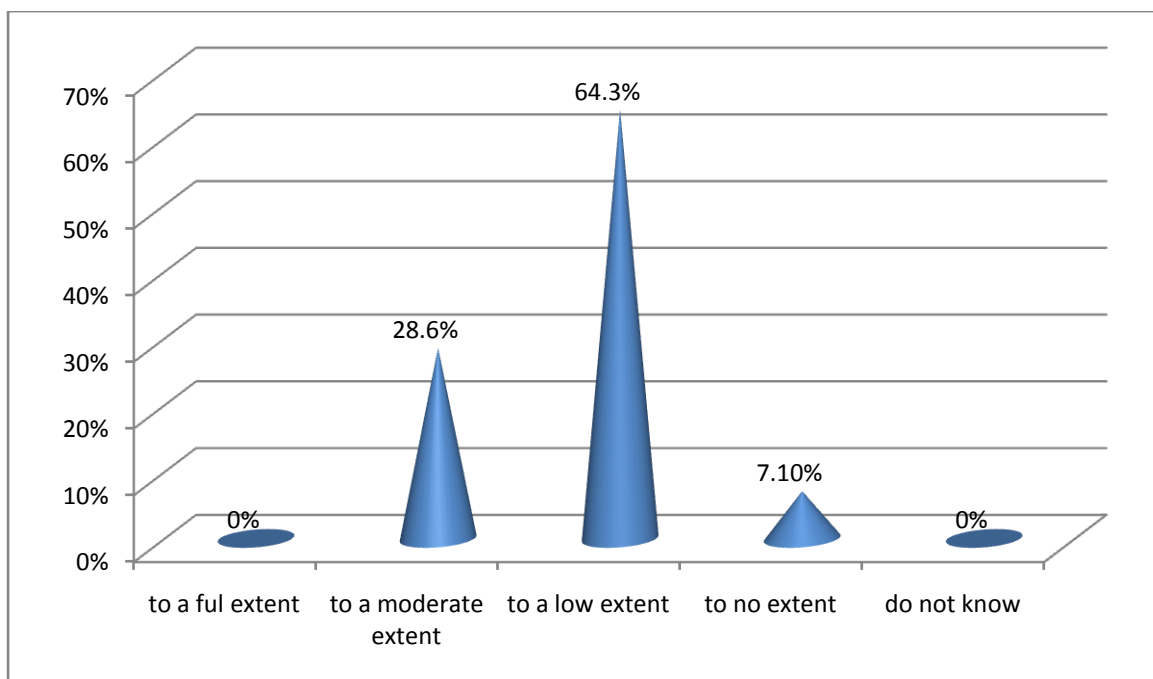
71.4% use KRIs as a warning signal to a moderate extent, 7.1% to a full extent, 21.4% to a low degree. 7.1% use them to a full extent as a decision making tool, 57.10% to a moderate extent, 14.3% to a low extent and 21.4% to a low extent. Majority of the respondents, 50.00% use KRIs to no extent as a capital charge. Only 14.3% use it to a low extent and around 35.75% did not state if KRIs are being used as a capital charge.

The use of KRIs is still at preparatory stages in Zimbabwe as well as other regional countries. Young, (2012) concluded that South African banks are still at preparatory stages in terms of the uses of KRIs.

4.3.8 Incorporation into formal approved policy

Respondents indicated the extent to which their institutions have incorporated KRIs methodologies into formally approved policies. The results are presented in the Figure 4.4 below.

Figure 4.4 Level of incorporation into formal approved policy



Source: Raw Data

No respondent indicated that their institution has incorporated KRIs into formally approved policies to a full extent. 64.3% indicated that the level of incorporation is still low and 28.6% indicated that they have moderately incorporated. From the responses above it can be noted that the majority of the banks do have a formal policy though it could be still at its early stages of formulation. Approved policies communicate what we want to achieve as an organization and if an item is not incorporated in policies then it is mostly difficult for it to be adopted.

All respondents indicated that they use Management Information Systems for management reporting and risk management.

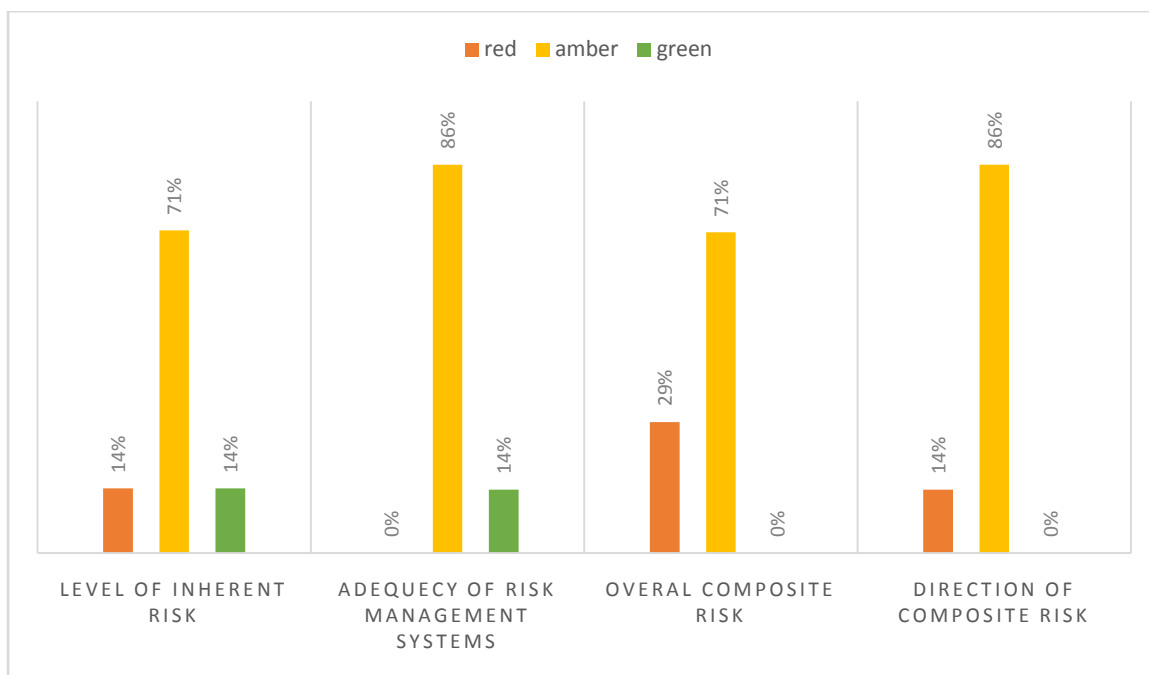
4.3.9 Risk culture and risk management

28.6% did not respond to this question. Those that respondent indicated that their risk culture is shared across all business units

4.4 Risk Assessment Systems

From the financial statements of the seven banks that were considered under the study the following summary of risk matrix was developed. The reserve bank of Zimbabwe, RBZ, carries out regular on-site examinations based on the Risk Assessment System on all banks. The results of the latest examination are presented on the graph below.

Figure 4.5 Summary of risk matrix



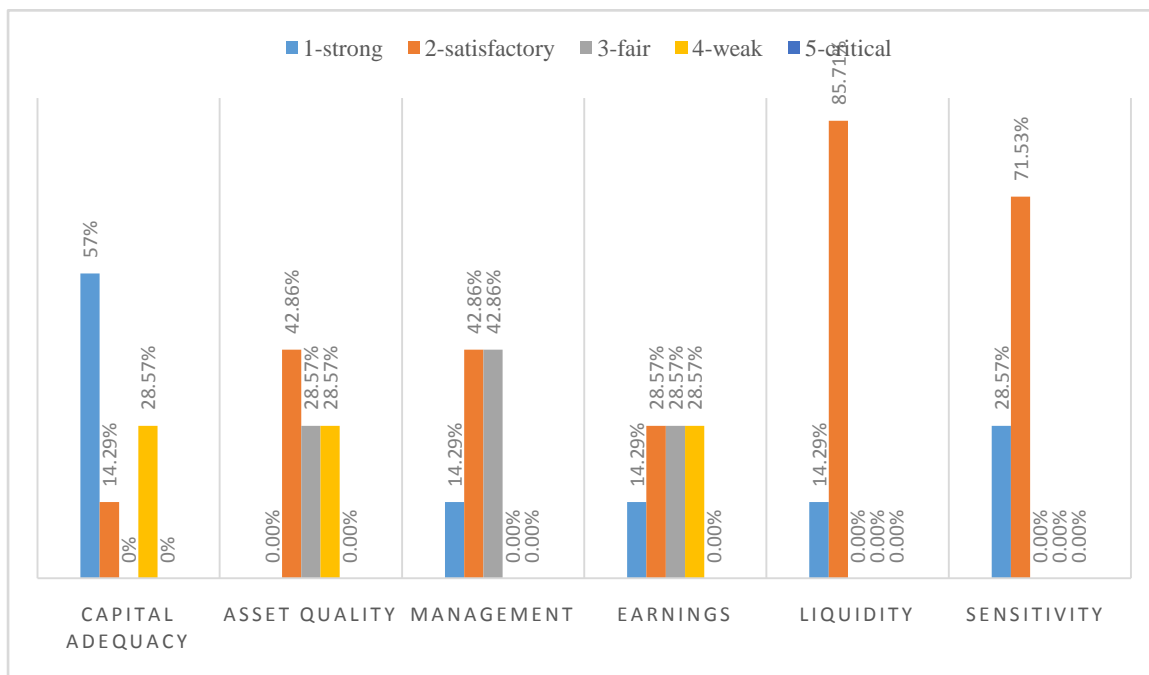
Source: Raw Data

In terms on the level of inherent risk, 71% are in the moderate/ amber zone, meaning to say that the level could reasonably be expected to result in a loss that can be absorbed by the institution in the normal course of the business. 14% are in the high/red zone and low/green zone respectively. High zone represent a level that is higher than the average probability of potential loss, and the losses could be harmful. Institutions in the green zone can be considered to be in the safe zone because the risk level is lower than the average.

86% of the financial institutions have risk management systems that are acceptable, the systems are generally adequate regardless of some minor risk management weaknesses which are being addressed. The remaining 14% effectively identifies and controls all types of risks posed by relevant functional areas.

71% of the banks are in the moderate or amber zone of the overall composite risk meaning to say that their risk management systems adequately mitigate risk. The remaining 14% lies in the high/red zone where risk systems are do not sufficiently mitigate the high inherent risk. The direction of composite risk is stable for the next 12months in most banks, (86%). The other 14% lies in the increasing/red zone meaning to say that basing on the current information, risk is likely to increase in the next 12months.

The above matrix gives a summary of risk indicators that give signals to management and regulators of financial institutions on profiles of different key risks.



4.4.2 Using CAMELS regulatory framework to identify leading risk indicators

Source: Raw Data

CAMELS is a model that is used by the regulatory board to assess the performance of financial institutions in terms of their Capital adequacy, Asset quality, Management, Earnings, Liquidity and Sensitivity to market risk. 57% of the banks have a strong capital base to act as cushion in times of shocks. 28.57% showed a weak Capital base, this could be an indication of the probability of failure when shocks arise. No institution have strong asset quality, the majority (42.86%) have a satisfactory level. The remaining 57.14% is fall in the fair and weak category equally. The performance of a bank is determined by the quality of its assets and a poor asset class may be a sign that the risk profile is on its way up.

Management capabilities seem to be commendable with the weakest falling in the fair category. This could mean that in terms of policy formulations banks are doing well. Earnings are on average. 85.71% are equally on the satisfactory, fair and weak categories. The remaining 14.29% have a strong earnings base. Banks are doing well in terms of their liquidity management. 86.71% have satisfactory liquidity to cover liquidity risk. 14.29% have a strong liquidity base. Also banks are being sensitive to market risk. 71.53% are satisfactorily sensitive to market risk while 28.57% are strongly sensitive to market risk.

Performance and risk can be managed at the same time using the CAMELS model. While all these components can measure the performance of an institution they can at the same time

provide information that is proactive regarding the risk profile of the bank. From the information a number of banks that have risk profiles that are escalating were identified. In line with the findings of Behringer, (2011), financial institutions can use the CAMELS regulatory framework to identify a leading indicator of risk that has an impact on CAMELS area and linking the matrix to the risk management framework. With the CAMELS ratings that are provided by the RBZ on financial institutions in Zimbabwe, management can leverage on these and produce effective set of KRIs that monitor the various risks that have the impact on the CAMELS regulatory framework. From the components of the CAMELS appropriate KRIs can be identified, the critical linkage to emerging risk and risk mitigation strategies can then be established.

4.5 Use of KRIs at management level.

From the financial statement consulted it was revealed that the issue of risk management is addressed at board of directors' level, policy formulations is done at this level. The risk and compliancy committees are then delegated with the duty of monitoring the various movements in risk profiles. These Committees in most banks are responsible for measuring and monitoring risk that means the use of Key risk indicators is addressed by these committees which are part of the board of directors. As far as KRIs are concerned, there is still a long way to go in terms of developing these indicators. The fact that it is an issue that is still addressed and board of director's level it could mean that it is still an issue that is still at the early stages of development.

4.6 Management reporting and Risk management methodologies employed by banks

Banks indicated that they use Management information systems for management reporting. From the financial statements it is indicative that financial institutions use other risk management methodologies besides KRIs. Such methods include, scenario testing. These test are done frequently to determine the level of risk exposure a bank is faced with. Records of loss events are also kept and these give insights on potential losses that can be repeated. Risk limits are set at almost every corner of the business units. Such limits include branch cash holding limits, transfer limits, teller transaction limits and write off limits.

4.7 Summary

This chapter looked at the analysis of results from the findings of the information gathered. From the findings the people who are involved in risk management have a prior working experience in the banking industry. Key risk indicators are better understood as an operational risk management tool. This could be a result of the stipulations that are provided

by the Basel II framework on the management of operational risk. It seems as if the banks are just following what is provided by the regulators and leave the rest. The frequency of reporting and reviewing risk indicators is mostly done on a quarterly basis and this is mostly insufficient considering the nature of risk indicators. A number of key risk indicators especially operational risk indicators are used in financial institutions together with key performance indicators in order to monitor the performance and risk of an institution at the same time. When selecting the appropriate risk indicator to use financial institutions first consider the risk factor in question and from there they would choose on the basis of the easy to use and other factors. The incorporation of risk indicators into formally approved policies is still at preparatory stages. The Reserve bank of Zimbabwe emphasizes on sound internal controls, adequate policies, procedures and limits as well as senior management oversight. From the RBZ's bank supervision report it highlighted that it continues to utilize risk based supervision methodologies in conducting on-site examinations. These help to maintain an understanding of the operations and risk profiles of bank institutions.

CHAPTER 5: CONCLUSIONS, SUMMARY AND RECOMMENTATIONS

5.1 Introduction

This chapter summarises the findings discussed in the previous chapter. It also gives a summary of the whole study. Conclusions drawn were mainly based on the main objective of the study which was to investigate how financial institutions integrate risk indicators into corporate performance management. Conclusions basing on other sub objectives were also discussed. This chapter also gives recommendations on what can be done in the future basing on the results from analysis of results.

5.2 Summary

The research sought to investigate how financial institutions in Zimbabwe integrate risk indicators into corporate performance management. Risk in today's business world is changing at a very fast pace that the 20th century risk practitioner could have hardly recognized. This means the way to go about in risk management is also changing every day. Issues like globalization, explosion of new business as well as growth in technology have accelerated the changing face of risk. These changes thus call for decision makers and risk managers in financial institutions to deal with their exposures in terms of measured and unmeasured risk as well as ways to mitigate the risks.

Key risk indicators have been identified as matrices that can be used to monitor the risk profile of a financial institution. They serve to give a red flag signal to management on a bank's risk position. They are reviewed periodically, to keep them up to date and relevant. KRIs are forward looking, they give information on a certain risk before it actually occurs. This means that risk personnel can maximize on these and take preventative action before things blow out of hand.

KRIs work hand in glove with KPIs in performance management since KPIs are used to measure the level overall performance of the organization. The two are different sides of the same coin, they measure the same thing in different ways. One way to effectively integrate risk and management is through integrating risk factors into the company's performance management tool.

Since risk can occur at any part of the organization it is thus important that both management and employees share a common understanding of what they want to achieve. Written risk policies are vital in any risk management process, that is why it is important to incorporate KRIs management methodologies into formally approved policies. This makes management

and monitoring more formal and thus enhance communication throughout the institution. Frequent measurement and close monitoring of the KRIs is also important so as to obtain the most representative information about changes in a risk profile. The more frequent they are measured the more informative they are and also the more decision making is enhanced.

The research followed a descriptive research design with information gathered from primary and secondary data sources. The research targeted 18 banks operating in Zimbabwe and used a sample of seven banks. The findings were presented and analyzed. The issues of risk indicators are better understood as an operational risk management methodology. From the study most respondents indicated that they try by all means to involve everyone in terms of their shared values regarding risk. The senior and middle managers play crucial roles in molding the attitude of those around them towards risk. When measurement is done frequently corrective action can be taken when thresholds have been violated. In Zimbabwe the majority of banks tend to review their KRIs on a quarterly basis. The study also revealed that only operational risk indicators are the main indicators that banks use. The reason could be because these are the only indicators that the RBZ stress on.

5.3 Conclusions

From the study a number of conclusions were drawn and they are discussed as follows. In as much as KRIs offer a lot of benefits, there are underlying issues that have to be taken into account. It is important to define the risk factors of the particular institution. The risk factors are regarded differently from institution to institution. So for a KRI to be used effectively then an institution will have to properly define the risk they want to address.

Banks in Zimbabwe seem to have the theoretical understanding of what KRIs are, how they are used and their potential benefits. The practical application is the one that is still lagging behind.

The frequency of reporting KRIs is still inadequate. Reporting is mainly done on a quarterly basis and this is a bit insufficient considering the nature of KRIs and the purpose that they serve.

KRIs are being mainly used as an early warning sign as well as a decision making tool and less for calculating capital charge. KRIs are also being used for operational risk only and other risks are being monitored using other methodologies.

In all financial institutions considered under the study, risk management policy formulations are being done at board of directors levels. These boards are responsible for the overall establishment and oversight of the banks' risk management framework. The policies are established to identify and analyze the different risks faced by the bank and setting of risk limits as well as control measures. The policies are reviewed regularly.

The RBZ conducts regular on-site examinations based on the risk assessment system. These examinations provide a framework for reporting risk and performance at the same time. They provide an interface at which a financial institution can monitor the direction in which its overall composite risk is heading towards and thus put in place respective measures before risk blows out of hand.

The use of KRIs is still confined to operational risk. Almost all the institutions that use risk indicators use them to measure and monitor operational risk. Institutions use other methods to measure and monitor other risks. This shows that the appreciation of benefits of KRIs are not being fully exploited in Zimbabwe. This could be due to lack of full understanding of the use of KRIs as risk management tool.

The Appex bank is playing a central in risk and performance management through its different supervision and surveillance programmes.

Key Risk Indicators and Key Performance Indicators are closely related. In as much as one index tell us of how well we are doing, the other shows us the possibility of a future negative impact. When a financial institution properly monitors its KPIs and KRIs, it can monitor both risk and performance at the same time.

5.4 Recommendations

From the study the following recommendations can be made.

- Management of various banks can make use of the CAMELS ratings provided by the RBZ to effectively develop a set of KRIs that to monitor any emerging risk that has an impact on the CAMELS regulatory framework.
- Banks should explore the use of KRIs to monitor other risks other than operational risk.
- For those already using KRIs, they should report them more frequently
- Senior managers should conduct training sessions and other educational campaigns aimed at educating other staff about the concepts of KRIs.

- Junior managers should also be knowledgeable so as to avoid succession crisis in case senior management changes.

5.5 Suggestions

For a future study into this area, researchers may look at the relationship between risk culture of an institution and its overall performance.

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APPENDICES



Dear Sir /Madam

Re: Request for Contribution to an Academic Research

My name is Pamela Dhliwayo a final year student studying towards a Bachelor of Commerce Honors Degree in Banking and Finance with Midlands State University. As a requirement for the fulfilment of the Honors Degree, I am undertaking a study on *how financial institutions integrate key risk indicators into cooperate performance management*. May you kindly spare a few minutes of your busy schedule to complete this questionnaire, it will take not more than 10 minutes to complete.

Please note that this research is strictly for academic purposes only and will be treated with strict confidentiality. The findings of this survey will not be used for any other purpose besides that intended for this research. For further clarifications regarding this study, please feel free to contact the researcher on **0779969729** or email, pameladhliwayo@gmail.com.

Your cooperation is essential for the results of the survey to be regarded as valid and reliable.

Yours faithfully,

Pamela Dhliwayo

Personal Information

Please kindly tick the relevant answer.

1. For how long have you been working in the banking industry?

Less than 1 year

1-3 years

4-10 years

more than 10 years

2. For how long have you been involved in risk management?

Less than 1 year

1-3 years

4-10 years

more than 10 years

Key risk indicators (KRIs) in the organization

Please kindly tick the relevant answer where appropriate and/or provide your answer in the space provided.

3. Is the use of KRIs as a risk management tool understood in your organization?

Fully understood

moderately understood

Somewhat understood

not understood

4. What are the various KRIs being implemented in your organization?

5. What key Performance indicators, (KPIs) are being used in your institution?

6. How do you relate KRIs and KPIs in your organization?

7. How does your institution integrate KRIs into corporate performance management?

8. What basic criterion do you use to identify and select the appropriate KRIs to use?

9. To what extent are KRIs being used as a/an:

i) early warning signal

To a full extent To a moderate extent To a low extent To no extent

ii) Decision making tool

To a full extent To a moderate extent To a low extent To no extent

iii) Capital Charge

To a full extent To a moderate extent To a low extent To no extent

10. To what extent is the KRI management methodology incorporated into formally approved policy?

To a full extent To a moderate extent To a low extent To no extent

11. How frequently are KRIs being reported in your institution?

Annually semi-annually Quarterly Monthly Weekly

12. Which tools do you use for management reporting and Risk management?

13. Are these tools sufficient for your institution's needs?

Yes

No

14. What risk culture do you pursue in your institution?

15. What motivates the risk culture that you pursue as an organization?

16. Does the risk culture you follow allow for the full implementation of KRIs?

17. The trend of bank failures in Zimbabwe since 1980 show that local banks fail more frequently than international banks. In your own opinion, could this be a result of differences in risk cultures?

End of Questionnaire. Your time and effort is greatly appreciated.