ADOPTION OF RISK MANAGEMENT BY COMMERCIAL BANKS IN KENYA

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DECLARATION

This management research project is my original v	work and has not been presented for a
degree in any other university.	
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DEDICATION

To my dear parents, siblings, spouse and son. Thank you for your support and encouragement through out the study period.

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This research project has been brought to its state through the efforts and inspirations of many people. Thanks to almighty God for making it all happen.

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TABLE OF CONTENT

DECLARATION	i
DEDICATION	ii
ACKNOWGEMENT	iii
LIST OF TABLES	vii
LIST OF FIGURES	viii
LIST OF ABBREVIATIONS	ix
ABSTRACT	X
CHAPTER ONE	
1.0 Introduction	
1.1 Background information	1
1.2 Statement of the Research problem	5
1.3 Objectives of the study	6
1.4 Significance of the study	6
CHAPTER TWO	7
2.0 LITERATURE REVIEW	7
2.1 Introduction	7
2.2 Types of risk	7
2.2.1 Market or Systemic risk	7
2.2.2 Credit risk	8
2.2.3 Liquidity risk	9
2.2.4 Operation risk	9
2.2.5 Counterparty Risk	10
2.2.6 Performance risk	10
2.2.7 Compliance Risk	10
2.2.8 Reputational risk	11
2 2 0 944	
2.2.9 Strategic risk	11

2.3 Risk management practices	
2.4 Theories of Risk management	16
2.5 Empirical Studies	
2.6 Conclusion	21
CHAPTER THREE	22
3.0 RESEARCH METHODOLOGY	22
3.1 Introduction	22
3.2 Research design	22
3.3 Population and Sampling	22
3.4 Data collection	22
3.5 Data analysis	22
3.6 Data validity and reliability	23
CHAPTER FOUR	24
4.0 DATA ANALYSIS AND PRESENTATION	24
4.1 Introduction	24
4.2 Research Findings	24
4.2.1 Bank turnover	24
4.2.2 Level of Capital	25
4.2.3 Risk Management department	27
4.2.4 Types of Risk Management Committees	28
4.2.5 Staff in risk management departments	29
4.2.6 Staff training	30
4.2.7 Risk Management Policy and guidelines	31
4.2.8 Risk management policy formulation	32
management policies/guidelines	33
4.2.9 Annual Budget for Risk Management Function	34
4.2.10 Management structures	35
4.2.11 Risks encountered	36
4.2.12 critically prioritized risks	39

4.2.13 Types of risk measurement techniques	43
4.2.14 Techniques used in risk measurement	44
4.2.15 Statutory ratios	45
4.2.16 Main challenges in implementing successful risk management	46
4.3 Summary of findings and interpretation	48
CHAPTER FIVE	50
5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	50
5.1 Introduction	50
5.2 Summary	50
5.3 Conclusions	50
5.4 Policy Recommendations	51
5.5 Limitations of the study	52
5.6 Areas of further study	52
REFERENCES	54
APPENDIX 1: INTRODUCTION LETTER	57
APPENDIX 2: QUESTIONNAIRE	58
APPENDIX 3: LIST OF COMMERCIAL BANKS IN KENYA	61

LIST OF TABLES

Table 1: Percentage distribution of commercial banks by level of capital and annual
turnover Kshs. billion
Table 2: Existence of risk management department by level of capitalization
Table 3: Level of Reporting for person responsible for risk management (%)
Table 4: Distribution of staff size and training
Table 5: Distribution of banks with defined and documented risk
Table 6: Involvement in formulation of Risk Management Policies/Guidelines 32
Table 7: Frequency of review of risk management policies/guidelines and existence of
policies
Table 8 : Distribution of banks by annual budget allocation to risk management function
Table 9: Distribution of commercial banks by existence of risk management structures
and department
Table 10: Distribution of Commercial Banks by Types of Risks Encountered
Table 11: Distribution of risk ranking by criticality
Table 12: Distribution of Commercial Banks by State of Risk Management Structures . 42
Table 13: Independent Review of Risk Management Activities by Risk Management
Structures
Table 14: Level of use of Risk Management Technique
Table 15: Minimum Statutory Ratios by level of capitalization
Table 16: Challenges in implementation of risk management
Table 17: Distribution of budget size against budget challenges
Table 18: Distribution of staff training against staff training challenge

LIST OF FIGURES

Figure 1: Distribution of banks by annual turnover in Kshs. Billion	25
Figure 2: Percentage distribution of Commercial Banks by level of Capital	26
Figure 3: Kind of Risk Management Committee in Commercial Banks	29
Figure 4: Distribution of Banks by employment size in risk management Department 3	30
Figure 5: Percentage distribution of banks by frequency of review of risk	33
Figure 6: Percentage Distribution banks by kind of training	35
Figure 7: Percentage distribution by state of risk management structure	36
Figure 8: Types of Risks encountered by Commercial Banks	38
Figure 9: Distribution of Commercial Banks by least risks encountered	39
Figure 10: Percentage distribution of Banks by State of Risk Management Structure 4	41
Figure 11: Percentage distribution of methods used in risk measurements	43
Figure 12: Risk Measurement Techniques	44
Figure 13: Commercial Banks Meeting statutory ratios	46

LIST OF ABBREVIATIONS

Basel Global regulatory framework

BOD Board of Directors

CBK Central Bank of Kenya

CEO Chief Executive Officer

CFO Chief Finance Officer

CRO Chief Risk Officer

Risk Possibility that the outcome of an action or event could bring up adverse

impacts

ABSTRACT

The banking sector plays are very important role in the economy and the stability of the sector can not be over emphasized. Central bank of Kenya is mandated to regulate the industry. By the end of 2009 there were 44 licensed commercial banks operating in the country. Since 2005 CBK adopted risk based supervision. Global trends such as Basel framework requires bank to establish risk management systems to measure and mitigate risks. Several theories on risk management have been put across among them financial theory, agency theory, stakeholder theory and new institutional economics. Several studies have being conducted with bias towards tools and techniques adopted by various institutions on credit risk management. Study on the various risk encountered by commercial banks has not been conducted.

This study sought to identify the risks encountered by commercial banks and the risk management practices adopted by commercial banks to mitigate against these risks. Further the study wanted to establish the challenges faced by commercial banks in successful implementation of risk management. A census survey was conducted for all the licensed banks operating in Kenya. Questionnaires were administered to risk management staff through drop and pick approach. A 56.8 percent response rate was realized. The data was analyzed using SPSS.

The study revealed that credit, operation, reputation and compliance risks as critical and commonly encountered. Majority of the banks have risk management structures in place. However the quality of the same could not be ascertained. Majority of the banks were found to use both qualitative and quantitative methods to measure risk. Scenario analysis was found to be the most common used technique to measure risk. Budget constraint, complexity of risk management process and high training costs were identified as the main challenges facing implementation of risk management.

Progress has been made in risk management by commercial banks in Kenya as revealed by the study as most of the banks have risk management structures in place. This can partly be attributed by enhanced regulation and also realization of the banks on the importance of risk management. Despite the progress achieved so far there need to enhance risk management in the banking sector in order to comply with international standards so as to remain competitive. The challenges identified also need to be addressed through stakeholders' concerted efforts.

CHAPTER ONE

1.0 Introduction

This chapter gives the background of the study in terms of overview of the Kenyan Banking sector and risk management in banks. Further, the chapter gives the statement of the research problem, highlights the research objectives and the benefits of the study.

1.1 Background information

The Kenyan Banking Sector is composed of the Central Bank of Kenya, as the regulatory authority and the regulated; Commercial Banks, Non-Bank Financial Institutions and Forex Bureaus. As at 31st December 2009, the banking sector comprised of 44 commercial banks, 1 Mortgage Finance Company, 1 Deposit Taking Microfinance Institution and 129 Foreign Exchange Bureaus. Commercial banks and mortgage finance company are licensed and regulated under the Banking Act, Cap 488 and Prudential Regulations issued there under. Foreign Exchange Bureaus are licensed and regulated under the Central Bank of Kenya Act, Cap 491 and Foreign Exchange Bureaus Guidelines issued there under. Out of these institutions, locally; 3 banks have significant government shareholding, 28 banks are privately owned, one is a Mortgage Financial Institution and one is a Deposit Taking Micro-Finance Institution.13 banks are foreign owned. All 129 Foreign Exchange Bureaus are 100% private and majority are locally owned. (Central bank of Kenya, 2009)

The mandate of CBK includes protecting the interest of depositors by promoting prudent business behavior and risk management on the part of banking institutions. Best practice in banking supervision as spelt out in Basel core principles for effective banking supervision requires that supervisors to satisfy themselves that financial institutions have in place a comprehensive risk management process to identify, measure, monitor and control all material risk. (Central Bank of Kenya, 2005)

In view of stronger risk management regime among financial institutions in Kenya, in 2005 CBK changed its supervisory approach from traditional methods to risk based

supervision which places more emphasis on understanding and assessing the adequacy of each bank's risk management system in place to identify, measure, monitor, control risk in an appropriate and timely manner (Central Bank of Kenya,2005). Further in 2008, CBK carried out Basel II implementation survey to assess the status of Kenya banks vis a vis the requirements of Basel II. The survey results indicated a mixed level of preparedness of the Kenyan banking sector as far as Basel II implementation is concerned. The international banks, drawing on the support of their parent groups were found to be in better state of preparedness compared to local institutions. (Central bank of Kenya, 2008)

In the last decade banking institutions have enjoyed strong growth in business volumes, high asset quality and record profitability and they have proven their resilience in the face of episodic market and other shocks. The period has also been characterized by intensifying competition in banking, which has put margins under sustained downward pressure, and continued innovation, which has altered the complexity of banking activities. The increasing power and sophistication of technology, the growth of electronic commerce and greater use of outsourcing arrangements have led to fundamental changes in the manner in which banking institutions produce and deliver their services and manage their risks. One of the positive developments is that the risk management function in banking institutions is now more clearly identified and resourced; more integrated into their overall operations and generally commands more authority. Global regulatory initiatives such as the new Basel II Capital Framework have been a major catalyst for improvement but the greater sensitivity of boards and senior management to risk issues has also provided critical impetus. (Laker, 2007)

Risk management is the process by which managers identify key risks, obtain consistent, understandable operational risk measures, choose which risks to reduce and which to increase and by what means, and establish procedures to monitor the resulting risk position. Financial risk in a banking organization is possibility that the outcome of an action or event could bring up adverse impacts. Such outcomes could either result in a direct loss of earnings /capital or may result in imposition of constraints on bank's ability to meet its business objectives .Such constraints pose a risk as these could hinder bank's

ability to conduct it's on going business or take benefit of opportunities to enhance it's business. Generally, risk is possibility of reduction in firm value due to changes in the business environment. Risks are usually defined by the adverse impact on profitability of several distinct sources of uncertainty. There has been a dramatic change in the role of risk management in corporations. In the past, risk management often denoted the tasks associated with the purchase of insurance. Treasurers also performed risk management tasks, but they focused mostly on hedging interest rate and foreign exchange risks. Over the last ten years, corporations have taken into account additional types of risk. In particular, they started to pay much attention to operational risk and reputation risk. Most recently, strategic risks have been added to the panoply of risks considered. More and more, the risk management functions are directed by a senior executive with the title of chief risk officer (CRO) and the role of the board in monitoring risk measures and setting limits for these measures has increased at many corporations. (Nocco and Stulz, 2006)

Risk management involves identification, measurement, monitoring and controlling risk to ensure that the individual who take or manage risks clearly understands it; the organization's exposure is within the limits established by management; risk taking decisions are in line with business strategy and objectives set by management; the expected payoffs compensate for the risk taken; risk taking decision is explicit and clear; sufficient capital as a buffer is available to take risk. The goal of risk management is to optimize risk-reward trade-off. Financial institutions should have in place risk management framework that encompasses the scope of risks to be managed, the processes/systems and procedures to manage risk, the roles and responsibilities of individuals involved in risk management. The framework should be comprehensive enough to capture all risks a bank is exposed to and have flexibility to accommodate any change in business activities. This requires having a structure in place to look at risk interrelatiship across the organization. One of the most important aspects in risk management philosophy is to make sure that those who take or accept risk on behalf of the institution are not the ones who measure, monitor and evaluate the risks. Again the managerial structure and hierarchy of risk review function may vary across banks depending upon their size and nature of the business, the key is independence. To be

effective the review functions should have sufficient authority, expertise and corporate stature so that the identification and reporting of their findings could be accomplished without any hindrance. (State Bank of Pakistan, 2003)

Institutions should have a mechanism to identify stress situations ahead of time and plans to deal with such unusual situations in a timely and effective manner. Stress situations to which this principle applies include all risks of all types. Contingency planning activities include disaster recovery planning, public relations damage control, litigation strategy, responding to regulatory criticism etc. Contingency plans should be reviewed regularly to ensure they encompass reasonably probable events that could impact the organization. Plans should be tested as to the appropriateness of responses, escalation and communication channels. (State Bank of Pakistan, 2003)

Until and unless risks are assessed and measured it will not be possible to control risks. Further a true assessment of risk gives management a clear view of institution's standing and helps in deciding future action plan. To adequately capture institutions risk exposure, risk measurement should represent aggregate exposure of institution both risk type and business line and encompass short run as well as long run impact on institution. To the maximum possible extent institutions should establish systems / models that quantify their risk profile, however, in some risk categories such as operational risk, quantification is quite difficult and complex. Wherever it is not possible to quantify risks, qualitative measures should be adopted to capture those risks. Whilst quantitative measurement systems support effective decision-making, better measurement does not obviate the need for well-informed, qualitative judgment. Consequently the importance of staff having relevant knowledge and expertise cannot be undermined. Finally any risk measurement framework, especially those which employ quantitative techniques/model, is only as good as its underlying assumptions, the rigor and robustness of its analytical methodologies, the controls surrounding data inputs and its appropriate application. (State Bank of Pakistan, 2003)

1.2 Statement of the Research problem

Past financial crisis and volatility in financial sector point to the need for risk management. A stable financial sector is critical for the economy. Pyle (1997) indicates that banks and similar financial institutions need to meet regulatory requirements for risk measurement and capital. Meeting regulatory requirement is not the sole or the most important reason for establishing sound, scientific risk management system. Managers need reliable risk measures to direct capital to activities with best risk/reward ratios. They need estimates of the size of potential losses to stay within limits imposed by readily available liquidity by creditors, customers and regulators. They need mechanisms to monitor positions and create incentives for prudent risk taking. (Pyle, 1997)

Locally Simiyu (2004) established that that majority of institutions used credit metrics to measure credit migration and default risk. Yusuf (2005) indicated that quantification of risks into various categories was not widely practiced by Kenyan commercial banks. Mwirigi (2006) in his study on assessment of credit risk management techniques adopted by Micro Finance Institutions in Kenya, he found out that majority of institutions used swaps followed by forwards, futures and lastly options in risk management. Mutic (2006) found out that there is a negative relationship between asset quality and use of credit scoring model. Mathara (2007),in her study response of National bank of Kenya to challenge of non-performing loans, identified the factors that led to high levels of non-performing loans in the bank namely lack of adequate credit policy guidelines, poor credit risk management practices, use of qualitative methods of loan assessment & poor monitoring and evaluation systems. Ngare (2008) in his survey of credit risk management practices by commercial banks concluded consistent, accurate and reliable data is required in order to achieve best practice in credit risk management.

While the above research outcome provides insights in risk management, they only provide partial insight as they mainly focused on credit risk management by Micro Finance Institutions and commercial banks in Kenya. This study focused on all types of risks encountered by commercial banks and captured the current progress made in risk management.

1.3 Objectives of the study

The objectives of the study were:

- (i) To identity the risks faced by commercial banks in Kenya
- (ii) To determine the risk management practices adopted by commercial banks in Kenya
- (iii) To establish the main challenges facing commercial banks in risk management

1.4 Significance of the study

The results and findings of this study will help various stakeholders to better understand risk management and in what ways the banks can implement good risk management practice that aligns with bank performance. This study is will benefit the following parties:-

- (i) **Academic-**This study is expected to add to the body of knowledge on risk management and identify areas for further research.
- (ii) **Commercial banks** The findings of this research project will contribute to improving understanding about risk management practices in Kenyan banking industry, and in what ways the banks can enhance risk management.
- (iii) **Regulatory authority** The empirical results will also provide general indicators of risk management useful for both regulator and business people in making policies and decisions as well as in rewarding or punishing the banks that have great or little intention to improve their risk management.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter seeks to identify the types of risks faced by commercial banks and the risk management practices adopted by commercial banks to mitigate against such risk. Further empirical studies done on this area and their findings will be highlighted. Conclusion on this chapter will cover the knowledge gap in the area under study and how this research intends to fill the identified gap.

2.2 Types of risk

The risks associated with the provision of banking services differ by the type of service rendered

The type and degree of risks an organization may be exposed to depend upon a number of factors such as it's size, complexity of business activities, volume etc, it is believed that generally that banks face market or systemic, credit, counter party, liquidity, operational, performance, agency, strategy, compliance/legal/regulatory & reputation risks. (State Bank of Pakistan, 2003)

2.2.1 Market or Systemic risk

Santomero in Commercial Bank Risk Management: an Analysis of the Process, describes market or systemic risk as the risk of change in net asset value due to changes associated with systematic factors, that is, the underlying economic factors such as interest rates, exchange rates, and equity and commodity prices. However, banks carry only small net exposures to market risk from trading activities. The market risk capital charge for the major banks using their internal models has been around one per cent of capital over recent years. In the context of the Basel II Capital Framework, regulators will require banks accredited to use the more advanced Basel II approaches to hold specific regulatory capital against interest rate risk in the banking book, based on their internal risk measurement models. Regulators 's decision reflects the fact that this risk can be a

substantial one, it is quantifiable, there is substantial homogeneity in how it is managed among the larger banks and there is evidence of active hedging, if not actual trading, of this risk on banking books. In view of the significance of this risk, continuing margin pressures and the ease with which the risk can be hedged or traded, interest rate risk on the banking book is likely to be the subject of increasing supervisory focus globally. Financial institutions may be exposed to market risk in a variety of ways. Market risk exposure may be explicit in portfolios of securities/equities & instruments that are actively traded. Conversely it may be implicit such as interest rate risk due to mismatch of loans & deposits. Besides, market risk may also arise from activities categorized as off balance sheet item. Market risk is therefore potential for loss resulting from adverse movement in market risk factors such as interest rates, forex rates, and equity and commodity prices. (State Bank of Pakistan, 2003)

2.2.2 Credit risk

Is the change in net asset value due to changes in the perceived ability of counter parties to meet their contractual obligations. Is defined as changes in portfolio vales due to failure of counter-parties to meet their obligations or due to changes in the market's perception of their ability to continue to do so. Ideally, a bank risk management system should integrate this source of risk with market risk to produce overall measure of the bank's potential loss. Credit risk arises from the potential that an obligor is either unwilling to perform on an obligation or its ability to perform such obligation is impaired resulting in economic loss to the bank. In a bank's portfolio, losses stem from outright default due to inability or unwillingness of a customer or counter party to meet commitments in relation to lending, trading, settlement and other financial transactions. Alternatively losses may result from reduction in portfolio value due to actual or perceived deterioration in credit quality. Credit risk emanates from a bank's dealing with individuals, corporate, financial institutions or a sovereign. For most banks, loans are the largest and most obvious source of credit risk; however, credit risk could stem from activities both on and off balance sheet. In addition to direct accounting loss, credit risk should be viewed in the context of economic exposures. This encompasses opportunity costs, transaction costs and expenses associated with a non-performing asset over and

above the accounting loss. Credit risk can be further sub-categorized on the basis of reasons of default. For instance the default could be due to country in which there is exposure or problems in settlement of a transaction. Credit risk not necessarily occurs in isolation. The same source that endangers credit risk for the institution may also expose it to other risk. For instance a bad portfolio may attract liquidity problem. (State Bank of Pakistan, 2003)

2.2.3 Liquidity risk

Liquidity risk is the potential for loss to an institution arising from either its inability to meet its obligations or to fund increases in assets as they fall due without incurring unacceptable cost or losses. It arises when the cushion provided by the liquid assets are not sufficient enough to meet its obligation. In such a situation banks often meet their liquidity requirements from market. However conditions of funding through market depend upon liquidity in the market and borrowing institution's liquidity. Accordingly an institution short of liquidity may have to undertake transaction at heavy cost resulting in a loss of earning or in worst case scenario the liquidity risk could result in bankruptcy of the institution if it is unable to undertake transaction even at current market prices. Banks with large off-balance sheet exposures or the banks, which rely heavily on large corporate deposit, have relatively high level of liquidity risk. Further the banks experiencing a rapid growth in assets should have major concern for liquidity. Best be described as the risk of a funding crisis. While some would include the need to plan for growth and unexpected expansion of credit, the risk here is seen more correctly as the potential for a funding crisis. Such a situation would inevitably be associated with an unexpected event, such as a large charge off, loss of confidence, or a crisis of national proportion such as a currency crisis. Recognizing liquidity risk leads the bank to recognize liquidity itself as an asset, and portfolio design in the face of illiquidity concerns as a challenge (Santomero, 1997)

2.2.4 Operation risk

Results from costs incurred through mistakes made in carrying out transactions such as settlement failures & untimely collections. Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and system or from external events. It is defined in the Basel II Capital Framework as the risk of loss resulting from

inadequate or failed internal processes, people and systems, or from external events, operational risk is one of the largest risks now facing banking institutions, an obvious consequence of the greater complexity of banking activity and its increasing dependence on technology and specialist skills. From a prudential perspective, the recurrence of small operational problems would not be an issue in a large, complex banking institution; the concern is the unusual individual problem or event that carries potentially large exposure to financial losses, or loss of reputation. (Laker, 2007)

2.2.5 Counterparty Risk

Counterparty risk comes from non-performance of a trading partner. The non-performance may arise from counterparty's refusal to perform due to an adverse price movement caused by systematic factors, or from some other political or legal constraint that was not anticipated by the principals. Diversification is the major tool for controlling nonsystematic counterparty risk. Counterparty risk is like credit risk, but it is generally viewed as a more transient financial risk associated with trading than standard creditor default risk. In addition, counterparty's failure to settle a trade can arise from other factors beyond a credit problem. (Santomero, 1997)

2.2.6 Performance risk

Encompasses losses resulting from failure to properly monitor employees or to use appropriate methods. (Pyle, 1997)

2.2.7 Compliance Risk

Also known as legal or regulatory risk. Occurs due to failure of a bank to comply with regulatory requirements. Legal risks are endemic in financial contracting and are separate from the legal ramifications of credit, counterparty, and operational risks. New statutes, tax legislation, court opinions and regulations can put formerly well-established transactions into contention even when all parties have previously performed adequately and are fully able to perform in the future. For example, environmental regulations have radically affected real estate values for older properties and imposed serious risks to lending institutions in this area. A second type of legal risk arises from the activities of an institution's management or employees. Fraud, violations of regulations or laws, and

other actions can lead to catastrophic loss, as recent examples in the thrift industry have demonstrated. All financial institutions face all these risks to some extent. Non-principal or agency activity involves operational risk primarily. Since institutions in this case do not own the underlying assets in which they trade, systematic, credit and counterparty risk accrues directly to the asset holder. If the latter experiences a financial loss, however, legal recourse against an agent is often attempted. Only agency transactions bear some legal risk, if only indirectly. (Santomero, 1997)

2.2.8 Reputational risk

Reputational risk may arise by way of group contagion or from the institution's own actions; in the latter case, reputational loss may well be the consequence of another risk event than a risk event in its own right. Either way, the potential impact needs to be taken into account in estimating potential overall unexpected loss. In quantifying the impact of a serious operational failure, for example, the cost of the resulting damage to the institution's brand and franchise may far exceed the direct cost of the operational risk event itself. Quantification of potential reputational damage is difficult given the limited historical data available, but the risk is potentially too important to ignore. As with strategic risk, some combination of subjective stress testing with statistical techniques where sufficient data exist would seem to offer most promise.

2.2.9 Strategic risk

Is defined as external risks to the viability of a banking institution arising from unexpected adverse changes in the business environment with respect to the economy, the political landscape, regulation, technology, social mores and the actions of competitors. These risks can manifest themselves in the form of lower revenues due to reduced demand for products and services and higher costs or cost inflexibility due to inability to reduce fixed costs quickly in line with lower-than-anticipated business volumes. Banks have been taking a cautious approach to regional expansion as they seek to identify sources of competitive advantage in other markets.

There is general acceptance that strategic risk should be included in any comprehensive economic capital model. Capital is needed to enable a banking institution to ride out

temporary changes in market conditions and to allow it sufficient time to adapt its business model to more permanent changes in the competitive environment. However, the absence of sufficient meaningful historical data makes measurement a problem, particularly with regard to the low probability, high potential impact strategic loss events that are a major concern to banking institutions. Some blend of subjective stress testing with statistical methods where available data permit might be the best that can be achieved. (State Bank of Pakistan, 2003)

2.2.10 Agency risk

A general form of agency risk arises if the interests of management are not aligned with the interests of shareholders and creditors. An obvious area of potential agency risk after sustained good economic times is executive compensation. In the developed countries banking system, executive compensation arrangements in listed institutions tend to involve a fixed annual salary and share options conditional upon performance. Typically, the option grant is zero if performance, often defined as total shareholder return relative to a benchmark group, is in the bottom half of the benchmark group; from the 50th to the 75th percentile of performance, the grant increases and a cap typically applies around the 75th percentile. The performance period is often five years. Executive compensation that helps to deliver strong risk-adjusted returns on capital over time and rewards genuine outperformance of competitors does not raise prudential issues of itself. For a prudential regulator, agency risk issues arise if compensation arrangements encourage management to focus on a shorter term horizon than the long-term approach that would also be in depositors' best interests. Incentives to drive up the share price more rapidly than competitors can tempt management to pursue aggressive growth strategies or to 'hollow out' the institution by paring back capital buffers or cutting costs, particularly in middle and back offices where risk management functions reside.

Executive compensation arrangements are matters for boards and shareholders. Nonetheless, growth strategies, the size of capital buffers and the resourcing of risk management areas are major elements of regulator's supervision of banking institutions and form crucial inputs into its risk-rating system, discussed below. Moreover, boards of

banking institutions seeking accreditation to use the more advanced Basel II approaches must sign-off that performance assessment of, and incentive compensation for, senior executives with profit centre accountability take into account the amount of risk assumed and the management of that risk (Klimczak, 2007).

2.3 Risk management practices

The objective of risk management is the same as for different types of risk that is to find out the extent of the financial institution's risk exposure; to understand what drives it, to allocate capital against it and identify trends internally and externally that would help predicting it. The concern for management of risk must start from the top management. Effective board and senior management oversight of the bank's overall market risk exposure is cornerstone of risk management process. Both the board and senior management should establish an organizational culture that places a high priority on effective operational risk management and adherence to sound operating controls. The board should establish tolerance level and set strategic direction in relation to risk. Such a strategy should be based on the requirements and obligation to the stakeholders of the institution. While the board gives a strategic direction and goals, it is the responsibility of top management to transform those directions into procedural guidelines and policy document and ensure proper implementation of those policies. The other components of financial institution risk management framework should cover organizational structure, systems and procedures for identification, acceptance, measurement, monitoring and control risks. (State Bank of Pakistan, 2003)

The first element of risk strategy is to determine the level of market risk the institution is prepared to assume. The risk appetite in relation to market risk should be assessed keeping in view the capital of the institution as well as exposure to other risks. Once the market risk appetite is determined, the institution should develop a strategy for market risk-taking in order to maximize returns while keeping exposure to market risk at or below the pre-determined level. While articulating market risk strategy the board needs to consider economic and market conditions, and the resulting effects on market risk; expertise available to profit in specific markets and their ability to identify, monitor and

control the market risk in those markets; the institution's portfolio mix and diversification. Finally the market risk strategy should be periodically reviewed and effectively communicated to the relevant staff. There should be a process to identify any shifts from the approved market risk strategy and target markets, and to evaluate the resulting impact. The Board of Directors should periodically review the financial results of the institution and, based on these results, determine if changes need to be made to the strategy. (State Bank of Pakistan, 2003)

The institutions should formulate market risk management polices which are approved by board. The policy should clearly delineate the lines of authority and the responsibilities of the Board of Directors, senior management and other personnel responsible for managing market risk; set out the risk management structure and scope of activities; and identify risk management issues, such as market risk control limits, delegation of approving authority for market risk control limit setting and limit excesses. (State Bank of Pakistan, 2003)

The very first purpose of bank's credit strategy is to determine the risk appetite of the bank. Once it is determined the bank could develop a plan to optimize return while keeping credit risk within predetermined limits. The bank's credit risk strategy should spell out the pricing strategy, target market and the institution's plan to grant credit. It is essential that banks give due consideration to their target market while devising credit risk strategy. The credit procedures should aim to obtain an in-depth understanding of the bank's clients, their credentials and their businesses in order to fully know their customers. The strategy should provide continuity in approach and take into account cyclic aspect of country's economy and the resulting shifts in composition and quality of overall credit portfolio. While the strategy would be reviewed periodically and amended, as deemed necessary, it should be viable in long term and through various economic cycles. (State Bank of Pakistan, 2003)

The senior management of the bank should develop and establish credit policies and credit administration procedures as a part of overall credit risk management framework

and get those approved from board. Such policies and procedures shall provide guidance to the staff on various types of lending including corporate, SME, consumer, agriculture, etc. In order to be effective these policies must be clear and communicated down the line. Further any significant deviation/exception to these policies must be communicated to the top management/board and corrective measures should be taken. It is the responsibility of senior management to ensure effective implementation of these policies. To maintain bank's overall credit risk exposure within the parameters set by the board of directors, the importance of a sound risk management structure is second to none. While the banks may choose different structures, it is important that such structure should be commensurate with institution's size, complexity and diversification of its activities. It must facilitate effective management oversight and proper execution of credit risk management and control processes. (State Bank of Pakistan, 2003)

A liquidity risk management involves not only analyzing banks on and off-balance sheet positions to forecast future cash flows but also how the funding requirement would be met. The later involves identifying the funding market the bank has access, understanding the nature of those markets, evaluating banks current and future use of the market and monitor signs of confidence erosion. The formality and sophistication of risk management processes established to manage liquidity risk should reflect the nature, size and complexity of an institution's activities. Sound liquidity risk management employed in measuring, monitoring and controlling liquidity risk is critical to the viability of any institution. Institutions should have a thorough understanding of the factors that could give rise to liquidity risk and put in place mitigating controls. Besides the organizational structure discussed earlier, an effective liquidity risk management include systems to identify, measure, monitor and control its liquidity exposures. Management should be able to accurately identify and quantify the primary sources of a bank's liquidity risk in a timely manner. To properly identify the sources, management should understand both existing as well as future risk that the institution can be exposed to. Management should always be alert for new sources of liquidity risk at both the transaction and portfolio levels. Key elements of an effective risk management process include an efficient MIS,

systems to measure, monitor and control existing as well as future liquidity risks and reporting them to senior management. (State Bank of Pakistan, 2003)

Operational risk is associated with human error, system failures and inadequate procedures and controls. It is the risk of loss arising from the potential that inadequate information system; technology failures, breaches in internal controls, fraud, unforeseen catastrophes, or other operational problems may result in unexpected losses or reputation problems. Operational risk exists in all products and business activities. Operational risk event types that have the potential to result in substantial losses includes Internal fraud, External fraud, employment practices and workplace safety, clients, products and business practices, business disruption and system failures, damage to physical assets, and finally execution, delivery and process management. (State Bank of Pakistan, 2003)

2.4 Theories of Risk management

Klimczak (2007) identified financial theory, agency theory, stakeholder theory and new institutional economics. Financial economics approach to corporate risk management has so far been the most prolific in terms of both theoretical model extensions and empirical research. This approach builds upon classic Modigliani-Miller paradigm (Miller and Modigliani, 1958) which states conditions for irrelevance of financial structure for corporate value. This paradigm was later extended to the field of risk management. This approach stipulates also that hedging leads to lower volatility of cash flow and therefore lower volatility of firm value. Rationales for corporate risk management were deduced from the irrelevance conditions and included: higher debt capacity (Miller and Modigliani, 1963), progressive tax rates, lower expected costs of bankruptcy (Smith and Stulz, 1985), securing internal financing (Froot et al., 1993), information asymmetries (Geczy et al., 1997) and comparative advantage in information (Stulz, 1996). The ultimate result of hedging, if it indeed is beneficial to the firm, should be higher value – a hedging premium. Klimczak (2007)

The separation of ownership and control leads to an agency problem whereby management operates the firm aligning with their own interests, not those of shareholders

(Jensen and Meckling, 1976). Agency theory extends the analysis of the firm to include separation of ownership and control, and managerial motivation. In the field of corporate risk management agency issues have been shown to influence managerial attitudes toward risk taking and hedging (Smith and Stulz, 1985). Theory also explains a possible mismatch of interest between shareholders, management and debt holders due to asymmetries in earning distribution, which can result in the firm taking too much risk or not engaging in positive net value projects (Mayers and Smith, 1987). Consequently, agency theory implies that defined hedging policies can have important influence on firm value. Klimczak, (2007). Jensen (1986), argues that the role of managers as agents for stockholders is fraught with conflicts of interest which can affect asset selection, firm behavior, efficiency and performance. Managers, especially if they are risk averse, seek to maximize their own explicit and implicit compensation at the expense of shareholders. Since both managerial compensation and power are typically linked to firm growth and larger firm size, management is may be incented to maximize firm growth beyond efficient size. This, of course, decreases operational efficiency, lowers returns and works against the interests of shareholders. Theory also suggests that agency problems will induce managers to avoid monitoring by the capital markets by relying upon internal as opposed to external financing of investments. In fact, they will tend to over-invest in projects, including investing in negative net present value.

Stakeholder theory, developed originally by Freeman (1984) as a managerial instrument, has since evolved into a theory of the firm with high explanatory potential. Stakeholder theory focuses explicitly on equilibrium of stakeholder interests as the main determinant of corporate policy. The most promising contribution to risk management is the extension of implicit contracts theory from employment to other contracts, including sales and financing (Cornell and Shapiro, 1987). In certain industries, particularly high-tech and services, consumer trust in the company being able to continue offering its services in the future can substantially contribute to company value. However, the value of these implicit claims is highly sensitive to expected costs of financial distress and bankruptcy. Since corporate risk management practices lead to a decrease in these expected costs,

company value rises (Klimczak, 2005). Therefore stakeholder theory provides a new insight into possible rationale for risk management.

A different perspective on risk management is offered by new institutional economics. The focus is shifted here to governance processes and socio-economic institutions that guide these processes, as explained by Williamson (1998). Although no empirical studies of new institutional economics approach to risk management have been carried out so far, the theory offers an alternative explanation of corporate behavior. Namely, it predicts that risk management practices may be determined by institutions or accepted practice within a market or industry. Moreover, the theory links security with specific assets purchase (Williamson, 1987), which implies that risk management can be important in contracts which bind two sides without allowing diversification, such as large financing contract or close cooperation within a supply chain.(Klimczak, 2007).

2.5 Empirical Studies

A 2004 survey by CBK explored the extent to which banking institutions in Kenya had adapted to demands for new approaches to managing banking issues that lay emphasis on risk, identification, measurement, monitoring, and control/mitigation. The survey brought out a number of gaps that demonstrated the need for enhancing risk management in financial institutions. (CBK, 2004)

In 2008, CBK carried out Basel II implementation survey to assess the status of Kenya banks vis a vis the requirements of Basel II. The survey results indicated a mixed level of preparedness of the Kenyan banking sector as far as Basel II implementation is concerned. The international banks, drawing on the support of their parent groups were found to be in better state of preparedness compared to local institutions. There were also challenges in meeting requirements of Basel II that would impact on all banks (CBK, 2008)

Nocco and Stulz, (2006) showed why enterprise risk management creates value for shareholders. It was clear from the article that additional research is needed to help with the implementation of enterprise risk management. In particular, it has become clear in

implementations of enterprise risk management that a more complete understanding of the distribution of firm value is required. Though correlations between different types of risks are essential in measuring firm-wide risk, existing research provides little help in how to estimate these correlations when implementing enterprise risk management. Firms find hard to quantify risks to be extremely important. Examples are reputation and strategic risks. At this point, there is little research that helps practitioners in assessing these risks, but much gain could be made by understanding these risks better even if they cannot be quantified reliably. (Nocco and Stulz, 2006)

Klimczak (2007) showed that financial economics and agency theory hypothesis found little supporting evidence, while the two recent approaches, stakeholder and NEI may be offering new insights into the determinants of risk management. The poor results clearly indicate that there must be other significant factors, not included in present theories. Further research will be needed to identify these factors, and later incorporate them into a comprehensive theoretical model which will explain risk management practices of firms better.

Kimeu (2006), in his survey on credit risk management techniques of unsecured bank loans of commercial banks in Kenya, he found out majority 86.7 percent of commercial banks indicated credit and liquidity risks as their most important risks. He found majority of the banks have credit management policies as a basis for objective credit risk appraisal and formulation of those policies was undertaken by the top management. He found out that majority of the respondents 93.3 percent used statistical method of credit assessment in screening loan applications. He also found that majority of the banks used on job training to sensitize their employees on credit risk. The study revealed majority of he respondents 86.7 percent indicated that improved credit appraisals is the considered as the most responsible factor for their improved financial performance.

Mathara (2007), in her study response of National bank of Kenya to challenge of non-performing loans, identified the factors that led to high levels of non-performing loans in the bank namely lack of adequate credit policy guidelines, poor credit risk management

practices, use of qualitative methods of loan assessment & poor monitoring and evaluation systems. Mutie (2006) in his study on credit scoring practices and non-performing loans in Kenyan commercial banks, found out that there is a negative relationship between asset quality and use of credit scoring model. Mudiri (2003), in his study credit management techniques applied by financial institutions offering microcredit in Kenya found out that all Micro-Finance Institutions had prepared and documented policies that guide them in their operations.

Mwirigi (2006) in his study on assessment of credit risk management techniques adopted by Mirco - Finance Institutions in Kenya, he found out majority 80 percent of Micro-Finance Institutions ranked credit risk as most important followed by interest and technological risks at 62.5 percent each, then market risk 57. 5 percent and lastly foreign exchange risk at 40 percent. He also established that most of the Institutions used 6Cs criteria for appraising borrowers. His study also revealed that significant number of the respondents 87.5 percent used pre-set credit risk levels as a means of managing credit risk.

Ngare (2008) conducted survey of credit risk management practices by commercial banks in Kenya. The study revealed that most banks used qualitative loan assessment methods to make credit granting decisions and adverse trading by the borrowers were the main sources of credit risk among the banks in Kenya. In addition, most banks were found to use loan diversification, banks guarantees and bank covenants to mitigate against credit risk.Njiru (2003) in his study on risk management by Co-operatives Societies in Embu district found out that none of them used quantitative methods to evaluate the credit worthiness of their members and that they used qualitative methods only.He concluded that most of the cooperative societies did not manage their credit risk properly leading to high rate of default and therefore not being in a position to lend to members promptly.

Simiyu (2008) in his survey of techniques of credit risk management in Micro-Finance Institutions in Kenya, he found that majority of Institutions 59 percent used credit metrics to measure the credit migration and default risk. The study also revealed that

understanding of the organization's exposure to the customers is treated as critical by Micro-Finance Institutions

2.6 Conclusion

Issues of risk management in banking sector have greater impact not only on the bank but also on the economic growth. When banks manage their risk better, they will get advantage to increase their performance (return). Better risk management indicates that banks operate their activities at lower relative risk and at lower conflict of interests between parties. These advantages of implementing better risk management lead to better banks performance. Better bank performance increases their reputation and image from public or market point of view. The banks will get lower cost of risky capital and other sources of funds. The banks also get more opportunities to increase the productive assets, leading to higher bank profitability (Cebenoyan and Strahan 2004). CBK survey revealed challenges in risk management practices within the local banking industry.

Literature review confirms there has been a considerable research effort in the area of risk management. locally, most of the studied are biased towards various tools and techniques of credit risk management used by different institutions (Ngare 2008; Simiyu 2008; Mwrigi 2006; Njiru 2003 and Mudiri 2003). These studies have not covered the other types of risk encountered by commercial banks and this presents a knowledge gap that this study intends to fill.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers how the research was conducted. It covers the research design, identifies the research population, the sampling technique employed and the data collection methods used. The data analysis method is also explained.

3.2 Research design

A census survey research design was employed as not much was known to allow for advanced research. It therefore provided insight and understanding of the state of risk management by commercial banks in Kenya. The design was also convenient in terms of cost and time.

3.3 Population and Sampling

The target population of the study was all 44 commercial banks licensed and regulated under the Banking Act, Cap 488 as at the end of December 2009. (Central Bank of Kenya, 2009). Given the population size which is not very large, no sample was drawn rather the whole population will be subject to this study excluding the one under statutory management.

3.4 Data collection

Data was collected from primary source through semi – structured questionnaire targeting risk management staff in commercial banks administered through drop and pick method. This method was convenient to both parties. Respondents had adequate time to fill the questionnaire and researcher saved on time.

3.5 Data analysis

Completed questionnaires were reviewed and edited for completeness, coded, labeled and keyed into the computer for statistical analysis. The data was analyzed using descriptive statistics, tables and percentages. The analysis was tied to each objective to reach reliable conclusions. This data analysis technique is suggested as appropriate because of the

qualitative nature of data & also for the reason that it has been used successfully in other survey studies (Nzuki, 2006). Statistics Package for Social Scientist (SPSS) was utilized to perform the various analyses. The results were presented in forms of graphs, charts and tables.

3.6 Data validity and reliability

The questionnaires were reviewed and pre-tested before commencing data collection to help in validation and elimination of misunderstanding of the questions therein. Omissions in the questionnaire were corrected to improve reliability of the research instruments

CHAPTER FOUR

4.0 DATA ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter explains how data was analyzed and presented.

4.2 Research Findings

Questionnaires were distributed to all the commercial banks licensed and operating in Kenya in 2010. The questionnaires were issued to risk management staff or other senior staff involved with risk management in their respective commercial banks. A 56.8 percent response rate was realized. SPSS was used to analyze the collected data in line with the objectives of this study.

4.2.1 Bank turnover

Respondents were asked to indicate the bank annual turnover under five groups. Figure 1 presents the distribution of banks by annual turnover. The modal annual turnover was in the group Kshs. billion 1.1-5 comprising of 28.0 percent of the total followed by 20.0 percent of banks with annual turnover Kshs. billion 5.1 -10. The highest annual turnover of over Kshs. 10 billion comprised of 12.0 percent of total compared to 4.0 percent of the banks with a turn over of up to 0.5 billion shillings annually. Notably nearly one quarter of respondents did not indicate this information.

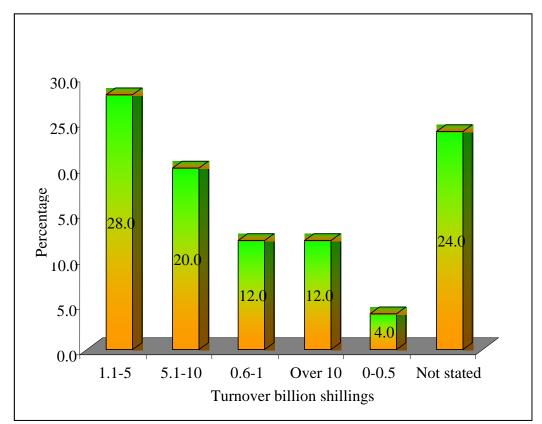


Figure 1: Distribution of banks by annual turnover in Kshs. Billion

4.2.2 Level of Capital

When asked about the level of capitalization in their respective banks, majority of respondents (24.0 percent) indicated that this was between Kshs. billion 1.1 and 5. Slightly more than one third of the banks (36.0 percent) had a capital level of 5.1 or more. One in every five of the banks had a lower capital level of up to Kshs. 1 billion.



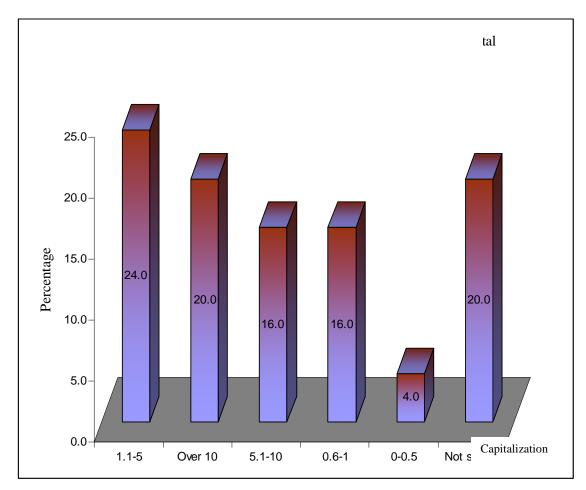


Table 1: Percentage distribution of commercial banks by level of capital and annual turnover Kshs. billion

Capital										
Kshs. billion	Annua	Annual Turn over Kshs. Billion								
	0-0.5	0-0.5 0.6-1 1.1-5 5.1-10 Over 10 Total (%)								
0-0.5	5.3	0.0	0.0	0.0	0.0	5.3				
0.6-1	0.0	15.8	5.3	0.0	0.0	21.1				
1.1-5	0.0	0.0	5.3	10.5	10.5	26.3				
5.1-10	0.0	0.0	21.1	0.0	0.0	21.1				
Over 10	0.0	0.0	5.3	15.8	5.3	26.3				
Total	5.3	15.8	36.8	26.3	15.8	100.0				

4.2.3 Risk Management department

Nearly all 92.0 percent banks studied had a risk management unit compared to 8.0 percent without such a unit.

Table 2: Existence of risk management department by level of capitalization

Capitalization level	Frequency		Percentage			
	No	Yes	Total	No	Yes	Total
0-0.5	0	1	1	0.0	4.0	4.0
0.6-1	1	3	4	4.0	12.0	16.0
1.1-5	0	6	6	0.0	24.0	24.0
5.1-10	0	4	4	0.0	16.0	16.0
Over 10	1	4	5	4.0	16.0	20.0
Not stated	0	5	5	0.0	20.0	20.0
Total	2	23	25	8.0	92.0	100.0

According to respondents, persons in-charge of these units were heads of risk department, senior managers or managers. Table 3 below presents the level of reporting for persons responsible for risk management. In majority of the banks, 44.0 percent, the level of reporting was to the risk committee and 40.0 percent senior management. Where risk management units existed, in 43.5 percent of the banks the heads of risk management department reported to risk committees compared to 39.1 percent to Senior Managers and 17.4 percent to Board of Directors. Where there were no risk management departments, the level of reporting were either to senior managers or risk committee.

Table 3: Level of Reporting for person responsible for risk management (%)

Level of Reporting	No Risk Management Dept.	With Risk Management Unit	Total
Senior Management	50.0	39.1	40.0
Board of Directors	0.0	17.4	16.0
Risk Committee	50.0	43.5	44.0
Total	100.0	100.0	100.0

4.2.4 Types of Risk Management Committees

As presented in Figure 3, the commercial banks have 3 main committees responsible for risk management issues namely risk audit, audit and assets liability committees. Risk management committee was found in 96.0 percent of the banks, assets liability committee in 72.0 percent and audit committees in 88.0 percent. Other committees in 16.0 percent of the banks included credit management committee.

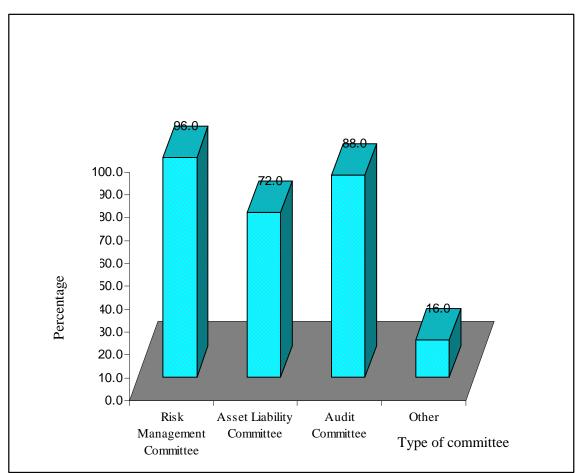


Figure 3: Kind of Risk Management Committee in Commercial Banks

4.2.5 Staff in risk management departments

Majority of the banks 72.0 percent employ 25 or less personnel in the risks management. Banks employing 26-50 and over 100 personnel comprised of 12.0 percent and 4 percent respectively of the total. See figure 4.

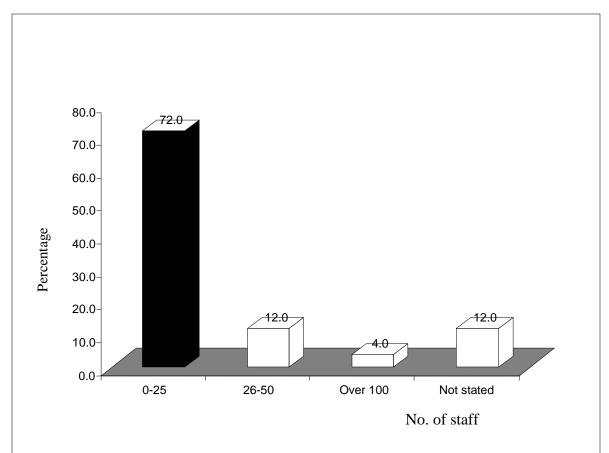


Figure 4: Distribution of Banks by employment size in risk management Department

4.2.6 Staff training

Table 2 shows that 76.0 percent of the banks have in their risk management departments trained personnel with relevant experience of which 56.0 percent were in units of up to 25 personnel. In 16.0 percent of the banks, the personnel in risk management units had trained in other fields (not relevant to risk management).

Table 4: Distribution of staff size and training

Employment					
size	Not sure	Little	Trained in other	Trained with relevant	
			fields	experience	Total
0-25	0.0	4.0	12.0	56.0	72.0
26-50	0.0	0.0	4.0	8.0	12.0
Over 100	0.0	0.0	0.0	4.0	4.0
Not stated	4.0	0.0	0.0	8.0	12.0
Total	4.0	4.0	16.0	76.0	100.0

4.2.7 Risk Management Policy and guidelines

Respondents were asked if their banks had clearly defined and documented risk management guidelines and policies. In response, 92.0 percent of the respondents reported having such policy and guidelines and 8.0 percent of the respondents were not sure existence of such policy/guidelines. Also 88.0 percent of banks with risk management departments have relevant policies and guidelines.

Table 5: Distribution of banks with defined and documented risk

Management policies/guidelines and risk management Departments

	Not sure of Risk	Have Risk	
	Management Dept	Management Dept	Total
Not Sure of Risk			
Management Policy	4.0	4.0	8.0
Has Risk Management			
policy	4.0	88.0	92.0
Total	8.0	92.0	100.0

4.2.8 Risk management policy formulation

Table 6 below shows that those who are highly involved in risk management policies and guidelines are senior managers 72.0 percent and board of directors 52.0 percent compared 24.0 percent other employees and 4.0 percent third parties. Other employees are fairly involved 36.0 percent in such policy formulation as opposed to board of directors 24.0 percent and third parties 32.0 percent. Where such policies exist, they are reviewed annually 36.0 percent or others wise (presumably when need arises) 28.0 percent. In very few banks are risk management reviewed monthly, quarterly and semi-annually each 4.0 percent.

Table 6: Involvement in formulation of Risk Management Policies/Guidelines

	Not	Fairly		Highly	
Type of Personnel	involved	involved	Involved	involved	Not stated
Board of Directors	0	6	4	13	2
Senior Management	1	0	4	18	2
				6	3
Third Parties	8	8	4	1	4
Percent					
Board of Directors	0.0	24.0	16.0	52.0	8.0
Senior management	4.0	0.0	16.0	72.0	8.0
Other Employees	8.0	36.0	20.0	24.0	12.0
Third Parties	32.0	32.0	16.0	4.0	16.0

Figure 5: Percentage distribution of banks by frequency of review of risk management policies/guidelines

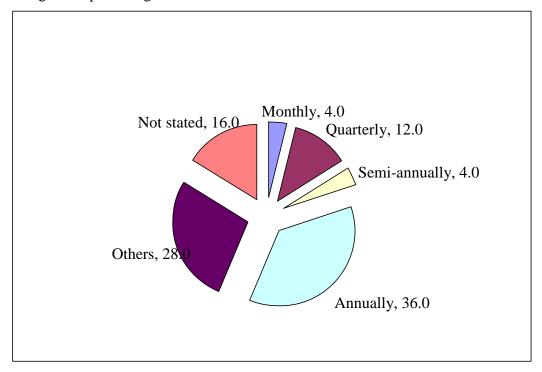


Table 7: Frequency of review of risk management policies/guidelines and existence of policies

	Frequency					
Duration	Not sure	Have Policy	Total	Not sure	Have Policy	Total
Monthly	0	1	1	0.0	4.0	4.0
Quarterly	2	1	3	8.0	4.0	12.0
Semi-annually	0	1	1	0.0	4.0	4.0
Annually	0	9	9	0.0	36.0	36.0
Others	0	7	7	0.0	28.0	28.0
Not stated	0	4	4	0.0	16.0	16.0
Total	2	23	25	8.0	92.0	100.0

4.2.9 Annual Budget for Risk Management Function

As presented in table 6, 71.4 percent of commercial banks allocate an annual budget of up to Kshs.25 million for risk management function. This is followed by 14.3 percent who allocate between 25 and 50 million shillings and 7.1 percent who allocate 76-100 million shillings. Only 7.1 percent of commercial banks have an allocation of over 100 million shillings for risk management function.

Table 8: Distribution of banks by annual budget allocation to risk management function

Annual	Budget	Kshs.	Freq	uency	Total	C	%	
million			No	Yes		No	Yes	Total
0-25			1	9	10	7.1	64.3	71.4
25-50			0	2	2	0.0	14.3	14.3
51-75			0	0	0	0.0	0.0	0.0
76-100			0	1	1	0.0	7.1	7.1
Over 100			0	1	1	0.0	7.1	7.1
Total			1	13	14	7.1	92.9	100.0

Table 9: Distribution of commercial banks by existence of risk management structures and department

	Risk Mana	gement Depa	artment			
Risk Management Structures	Frequency			%		
	No	Yes	Total	No	Yes	Total
No	0	2	2	0.0	8.0	8.0
Formative stage	0	1	1	0.0	4.0	4.0
Informal	0	2	2	0.0	8.0	8.0
Yes	2	17	19	8.0	68.0	76.0
Not stated	0	1	1	0.0	4.0	4.0
Total	2	23	25	8.0	92.0	100.0

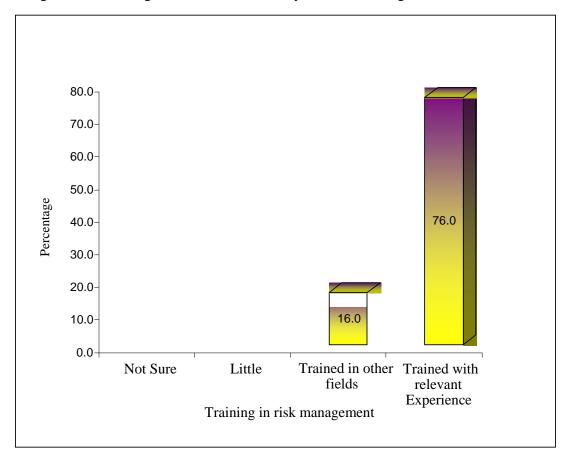


Figure 6: Percentage Distribution banks by kind of training

4.2.10 Management structures

Figure presents the state of establishment of risk management structures. According to respondents 76.0 percent of the banks have well developed risk management structures compared 4.0 percent whose structures are in formative stage and 8.0 percent with informal structures. Notably, 8.0 percent of the banks do not have well developed risk management structures.

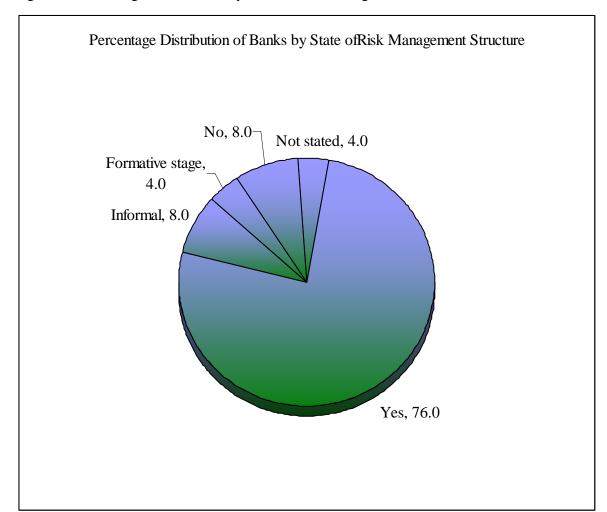


Figure 7: Percentage distribution by state of risk management structure

4.2.11 Risks encountered

Respondents were asked to rank the occurrence of different types of risks namely credit, market, liquidity, operational, counterparty, performance, compliance, reputation and strategic risks. Table 9 presents a summary of the respondents ranking of the frequency of occurrence of these risks.

Table 10: Distribution of Commercial Banks by Types of Risks Encountered

Type of Risk	Never	Least	Less Often	Often	Very Often	Not stated	Total
Credit Risk	0	0	0	9	13	3	25
Market Risk	0	0	4	10	8	3	25
Liquidity Risk	2	5	6	5	5	2	25
Operational Risk	0	1	6	9	7	2	25
Counterparty Risk	0	3	11	4	3	4	25
Performance Risk	0	5	9	6	2	3	25
Compliance Risk	1	3	6	6	6	3	25
Reputation Risk	2	3	7	6	4	3	25
Strategic Risk	1	4	6	8	3	3	25
Percentage	I			I			l
Credit Risk	0.0	0.0	0.0	36.0	52.0	12.0	100.0
Market Risk	0.0	0.0	16.0	40.0	32.0	12.0	100.0
Liquidity Risk	8.0	20.0	24.0	20.0	20.0	8.0	100.0
Operational Risk	0.0	4.0	24.0	36.0	28.0	8.0	100.0
Counterparty Risk	0.0	12.0	44.0	16.0	12.0	16.0	100.0
Performance Risk	0.0	20.0	36.0	24.0	8.0	12.0	100.0
Compliance Risk	4.0	12.0	24.0	24.0	24.0	12.0	100.0
Reputation Risk	8.0	12.0	28.0	24.0	16.0	12.0	100.0
Strategic Risk	4.0	16.0	24.0	32.0	12.0	12.0	100.0

Figure 6 shows the first 3 leading risks in occurrence namely credit risks, market risks and operational risks. In 52.0 percent of the banks, credit risks occur very often compared to 32.0 percent and 28.0 percent for market and operational risks.

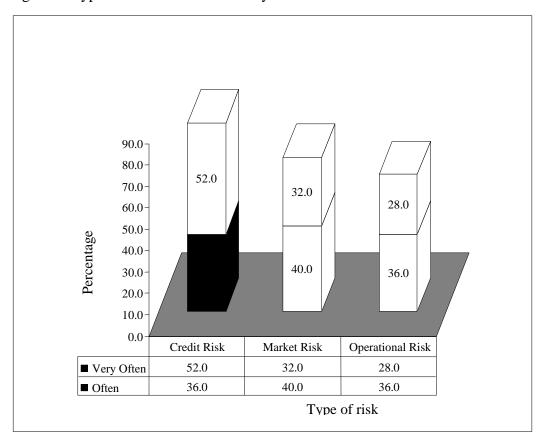


Figure 8: Types of Risks encountered by Commercial Banks

Figure 9 shows that least occurrence risks are liquidity 20.0 percent, performance, 20.0 percent, reputation 12.0 percent 16.0 percent of the banks. The percentage of bank reported to have never experienced liquidity, reputation and strategic risks were 8.0 percent, 8.0 percent and 4.0 percent respectively.

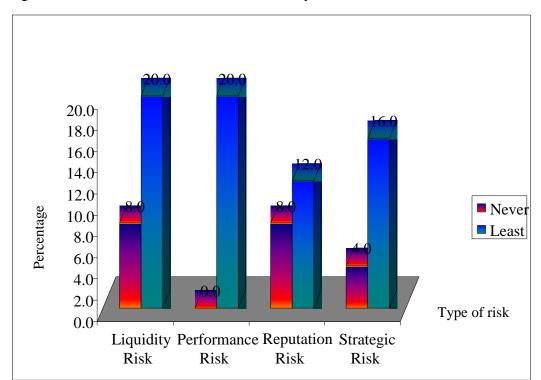


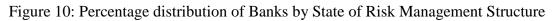
Figure 9: Distribution of Commercial Banks by least risks encountered

4.2.12 critically prioritized risks

Respondents were asked about the types of risks prioritized as critical. In 44.0 percent of banks, reputation risk was considered most critical followed by credit risks in 40.0 percent of the banks. Operational risks were also considered as very critical in 44.0 percent of the banks. When the two ways of ranking are considered, prioritized risks are credit risks 68.0 percent, operational risks 68 percent, reputation risks 64.0 percent and compliance risks 64.0 percent. Table 7 presents the analysis of prioritized critical risks

Table 11: Distribution of risk ranking by criticality

	Not	Least		Very	Most		
	Sure	critical	Critical	Critical	Critical	Not stated	Total
Credit Risk	0	0	5	7	10	3	25
Market Risk	0	1	8	8	5	3	25
Liquidity Risk	0	0	7	7	8	3	25
Operational Risk	0	0	5	11	6	3	25
Counterparty Risk	0	1	11	6	4	3	25
Performance Risk	1	2	9	6	3	4	25
Compliance Risk	0		6	8	8	3	25
Reputation Risk	0	1	6	5	11	2	25
Strategic Risk	0	0	10	6	6	3	25
Other	0	0	0	0	2	23	25
Percentage							
Credit Risk	0.0	0.0	20.0	28.0	40.0	12.0	100.0
Market Risk	0.0	4.0	32.0	32.0	20.0	12.0	100.0
Liquidity Risk	0.0	0.0	28.0	28.0	32.0	12.0	100.0
Operational Risk	0.0	0.0	20.0	44.0	24.0	12.0	100.0
Counterparty Risk	0.0	4.0	44.0	24.0	16.0	12.0	100.0
Performance Risk	4.0	8.0	36.0	24.0	12.0	16.0	100.0
Compliance Risk	0.0	0.0	24.0	32.0	32.0	12.0	100.0
Reputation Risk	0.0	4.0	24.0	20.0	44.0	8.0	100.0
Strategic Risk	0.0	0.0	40.0	24.0	24.0	12.0	100.0
Other	0.0	0.0	0.0	0.0	8.0	92.0	100.0



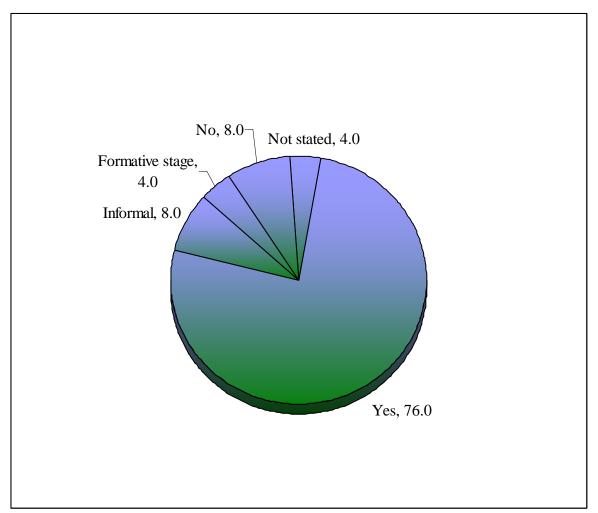


Table 12: Distribution of Commercial Banks by State of Risk Management Structures

Capital						
Level	No	Formative stage	Informal	Yes	Not stated	Total
0-0.5	0	0	1	0	0	1
0.6-1	0	1	0	3	0	4
1.1-5	1	0	1	4	0	6
5.1-10	0	0	0	4	0	4
Over 10	1	0	0	4	0	5
Not stated	0	0	0	4	1	5
Total	2	1	2	19	1	25
Percent	l		1	1	1	
0-0.5	0.0	0.0	4.0	0.0	0.0	4.0
0.6-1	0.0	4.0	0.0	12.0	0.0	16.0
1.1-5	4.0	0.0	4.0	16.0	0.0	24.0
5.1-10	0.0	0.0	0.0	16.0	0.0	16.0
Over 10	4.0	0.0	0.0	16.0	0.0	20.0
Not stated	0.0	0.0	0.0	16.0	4.0	20.0
Total	8.0	4.0	8.0	76.0	4.0	100.0

Table 13: Independent Review of Risk Management Activities by Risk Management Structures

Risk Management Structures	Independent Review of Risk Management Activities							
Risk Management Structures	Frequency		Total	%			Total	
	No	Yes	Not stated	10001	No	Yes	Not stated	Total
No	1	1	0	2	4.0	4.0	0.0	8.0
Formative stage	0	1	0	1	0.0	4.0	0.0	4.0
Informal	0	2	0	2	0.0	8.0	0.0	8.0
Yes	0	19	0	19	0.0	76.0	0.0	76.0
Not stated	0	0	1	1	0.0	0.0	4.0	4.0
Total	1	23	1	25	4.0	92.0	4.0	100.0

Independent review of risk management activities is conducted in 92.0 percent of the banks. This activity is carried out in all banks with informal risk management structures and those whose structures are in formative stage. Half of the banks without risk management structures also undertake independent reviews.

4.2.13 Types of risk measurement techniques

Measurement techniques in risk management can be qualitative or quantitative. Both techniques are used by majority of the banks 44.0 compared to 28.0 percent of banks which use qualitative techniques and 16.0 percent which use quantitative methods see figure

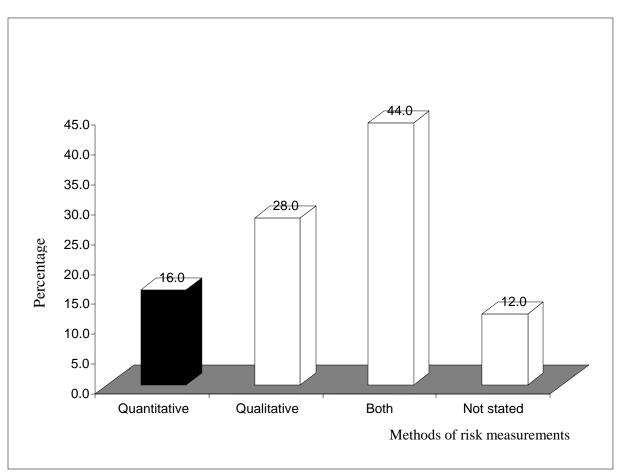


Figure 11: Percentage distribution of methods used in risk measurements

4.2.14 Techniques used in risk measurement

The most common technique used in measurement of risk is scenario analysis followed by value at risk technique. Stress test and annual earnings techniques are also used although these are less popular compared to the first two techniques.

35.0
30.0
25.0
20.0
34.1
27.3
20.5
18.2
Scenario analysis Value at Risk Stress Test Annual Earnings
Risk measure

Figure 12: Risk Measurement Techniques

Table 14: Level of use of Risk Management Technique

Risk Measurement Technique	Qualitative	Quantitative	Both	Total			
Scenario analysis	4	2	9	15			
Value at Risk	5	0	7	12			
Stress Test	2	1	6	9			
Annual Earnings	4	0	4	8			
Total	15	3	26	44			
Percent							
Scenario analysis	26.7	13.3	60.0	100.0			
Value at Risk	41.7	0.0	58.3	100.0			
Stress Test	22.2	11.1	66.7	100.0			
Annual Earnings	50.0	0.0	50.0	100.0			
Total	34.1	6.8	59.1	100.0			

4.2.15 Statutory ratios

As expected, 84.0 percent of the commercial banks maintain above minimum statutory ratios compared to 8.0 percent which maintain just the minimum ratio.

Table 15: Minimum Statutory Ratios by level of capitalization

Capital		Frequenc	y		%			
Level	Just	Above	Not		Just	Above	Not	
Level	Minimum	Minimum	Stated	Total	Minimum	Minimum	Stated	Total
0-0.5	0	1	0	1	0.0	4.0	0.0	4.0
0.6-1	1	3	0	4	4.0	12.0	0.0	16.0
1.1-5	0	6	0	6	0.0	24.0	0.0	24.0
5.1-10	1	3	0	4	4.0	12.0	0.0	16.0
Over 10	0	5	0	5	0.0	20.0	0.0	20.0
Not stated	0	3	2	5	0.0	12.0	8.0	20.0
Total	2	21	2	25	8.0	84.0	8.0	100.0

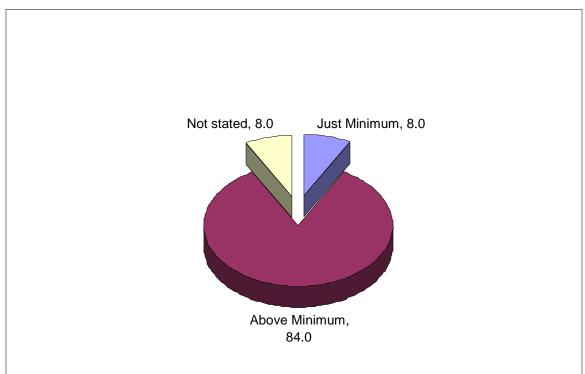


Figure 13: Commercial Banks Meeting statutory ratios

4.2.16 Main challenges in implementing successful risk management

Analysis of respondents' rating of the main challenges indicates that the two major challenges in risk management are budgetary constraints and complexity of the process. Respondents who agree or strongly agree with these two comprised of 56 percent for each compared to 24 percent who stated lack of qualified staff and lack of management support as the major challenges. 40 percent of the responses identified high training cost as a main challenge in this area.

Table 16: Challenges in implementation of risk management

Frequency	Not sure	Disagree	Agree	Strongly agree	Not stated	Total		
Lack of qualified staff	2	14	6	0	3	25		
High training cost	0	11	10	0	4	25		
Complexity of the process	1	7	12	2	3	25		
Budge constraints	2	5	12	2	4	25		
Lack of management support	2	14	4	2	3	25		
Percent	Percent							
Lack of qualified staff	8.0	56.0	24.0	0.0	12.0	100.0		
High training cost	0.0	44.0	40.0	0.0	16.0	100.0		
Complexity of the process	4.0	28.0	48.0	8.0	12.0	100.0		
Budget constraints	8.0	20.0	48.0	8.0	16.0	100.0		
Lack of management support	8.0	56.0	16.0	8.0	12.0	100.0		

Table 17: Distribution of budget size against budget challenges

Budgetary	0-25	25-50	76-100	Over 100	Not stated	Total
Not sure	0	0	0	0	2	2
Disagree	2	0	0		3	5
Agree	6	2		1	3	12
Strongly agree	1	0	1	0	0	2
Not stated	1	0	0	0	3	4
Total	10	2	1	1	11	25
Not sure	0.0	0.0	0.0	0.0	8.0	8.0
Disagree	8.0	0.0	0.0	0.0	12.0	20.0
Agree	24.0	8.0	0.0	4.0	12.0	48.0
Strongly agree	4.0	0.0	4.0	0.0	0.0	8.0
Not stated	4.0	0.0	0.0	0.0	12.0	16.0
Total	40.0	8.0	4.0	4.0	44.0	100.0

Table 18: Distribution of staff training against staff training challenge

	Not		Trained in other	Trained and	
Lack of qualified staff	sure	Little	fields	experienced	Total
Not sure	0	1	0	1	2
Disagree	1	0	3	10	14
Strongly disagree	0	0	1	5	6
Not stated	0	0	0	3	3
Total	1	1	4	19	25
Not sure	0.0	4.0	0.0	4.0	8.0
Disagree	4.0	0.0	12.0	40.0	56.0
Strongly disagree	0.0	0.0	4.0	20.0	24.0
Not stated	0.0	0.0	0.0	12.0	12.0
Total	4.0	4.0	16.0	76.0	100.0

4.3 Summary of findings and interpretation

The study revealed that 76 percent of the respondents have capitalization level of above Kshs.500 million required to be attained by end of 2010.24 percent of the respondents indicated they had attained capital level of Kshs.1 billion required to be attained by end of 2010.92 percent of the respondents indicated they had risk management departments as compared to 8 percent without.44 percent of the respondents indicated the risk department reports to risk committees, 40 percent to senior management and the others to board of directors.96 percent of the respondents indicated they have risk committee,72 percent asset and liability committee,88 percent have audit committee and 16 percent indicated they have other committees like credit committee. Respondents have most of these committees.

Majority of the banks 72 percent indicated they have up to 25 staff compared to 12 percent who have between 26-50 staff, 4 percent have over a hundred staff and 12 percent did not state.76 percent indicated their staff were well trained and experienced in risk

management as compared to 24 percent who had either little training, trained in other fields or not sure.72 percent respondents indicated that senior management was highly involved in risk management policies formulation as compared 4 percent and who indicated they were not highly involved. Senior management was followed by board of directors at 52 percent.36 percent of the respondents indicated these policies are reviewed annually as compared to monthly and semi – annually both at 4 percent .Majority of the banks 71.4 percent have risk management department annual budget of up to Kshs.25 million, followed by Kshs.25-50 million at 14.3 percent compared with Kshs.76-100 million and over Kshs.100 million at 7.1 percent each.76 percent of the respondents indicated that their banks had well established risk management structures, those that are informal or do not have risk management structures at all are 8 percent each,4 percent are either in formative stage or did not state.

52 percent of the respondents indicated they encountered credit risk very often compared to 32 percent and 28 percent for market and operational risk respectively. The highest level of risk never encountered was at 8 percent for liquidity and reputational risks.44 percent of the respondents indicated that reputational risk as prioritized most critical followed by credit risk at 40 percent .Operational risk was considered very critical by 44 percent of the respondents.92 percent of the respondents indicated that they carry out independent review of risk management activities as compared to 4 percent that do not.44 percent of the respondents revealed that they use both qualitative and quantitative methods to measure risk 12 percent did not state the method they use. The most commonly used risk measurement technique is scenario analysis at 34 percent, followed by value at risk 27 percent compared to annual earnings technique at 18 percent. 84 percent of the respondents have their statutory ratios above minimum, 8 percent at just minimum and 8 percent did not state. Complexity of risk management process and budget constraints were indentifies the main challenges of successful implementation of risk management at 56 percent each followed by staff training at 40 percent

CHAPTER FIVE

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter covers summary of the study, conclusions and recommendations. It further highlights the limitations faced during the study and indicates possible areas for further research.

5.2 Summary

This study sought to identify the risks encountered by commercial banks and the risk management practices adopted by commercial banks to mitigate against these risks. Further the study wanted to establish the challenges faced by commercial banks in successful implementation of risk management. A census survey was conducted for all the licensed banks in Kenya.Questionnaires were administered to risk management staff in commercial banks through drop and pick approach. A 56.8 percent response rate was realized. Data was analyzed using SPSS and presented in graphs and in tabular form.

The study revealed that credit, operation, reputation and compliance risks as critical and commonly encountered. Liquidity risk was least encountered risk. Majority of the banks indicated they had risk management structures in place. However the quality of the same could not be ascertained. Majority of the banks were found to use both qualitative and quantitative risk measurement methods. The most commonly used risk measurement technique was identified as scenario analysis followed by value at risk. Budget constraint, complexity of risk management process and high training costs were identified as the main challenges facing implementation of risk management.

5.3 Conclusions

The stability of commercial banks is very important for the economy. Risk management by commercial banks plays a vital role in ensuring commercial banks stability. Progress has been made in risk management by commercial banks in Kenya as revealed by the study as most of the banks have risk management structures in place. This can partly be attributed by enhanced regulation and also realization of the banks on the importance of risk management. However there is need to have all the banks establish the necessary risk management structures. Improvement in terms of quality and compliance to global standards is necessary in order to remain competitive.

Budget constraint, complexity of risk management process and high cost of training were identified as the main challenges to successful implementation of risk management in that order. There is need to address these challenges if successful risk management by commercial banks is to be realized. All the stakeholders have a role to play to ensure Kenyan banking sector is doing well in this important area.

Commercial banks need to be encouraged to invest in risk management in terms of establishing the necessary systems, staff training and research so as to be up to date on this area.

5.4 Policy Recommendations

Almost half of the respondents highlighted staff training as a challenge in successful implementation of risk management. There is therefore need to enhance staff training on new development in this area and also invest in research. This can be done by the regulator developing relevant courses, offering the courses at Kenya School of Monetary Studies and encouraging commercial banks to sponsor their risk management staff for training. Staff also needs to be encouraged to take up professional training. Institutions of higher learning in the country need to introduce courses on risk management.

The regulator and the ministry of finance should as a statutory requirement demand for compliance by commercial banks to global standards in risk management as stipulated by Basel committee over a given period of time.

Majority of the banks indicated they had risk management staff of up to 25.As banks grow and expand it is necessary to increase the staff in risk department to cope with the

scope of work adequately. Budget constraint was also identified as a challenge. Banks need to increase the budget allocation to risk department in order to be able to carry out their work adequately. Banks also need establish the necessary systems. The regulator also needs to enhance regular monitoring on this area to ensure best standards are attained. The process was noted to be complex. It might be necessary to simplify the process in form of a template or framework especially for small banks.

5.5 Limitations of the study

Various challenges were encountered during this study. First was lack of enough resources to carry out more detailed research. Detailed research also requires ample time which was not available. Availability of time and resources may have led to improved conclusion.

Some of the target respondents failed to give back filled questionnaires citing sensitivity of information requested and others were not willing to give the information hence limiting the response rate. Some questions in the questionnaire were not answered denying the study required data.

The weakness associated with the use of questionnaires can not be ruled out. Respondents might have had difficulty understanding certain questions and either left them blank or filled irrelevantly.

5.6 Areas of further study

This research was a survey on risk management by commercial banks in Kenya. There is need for further detailed study to be conducted to establish the relationship between risk management and performance of commercial banks in Kenya.

Study can be done to establish the relationship between risk management, performance and corporate governance of commercial banks in Kenya. This is a wide scope research but is important to establish the nature of relationship between the three variables.

Risk management study need to be widened to other sectors of the economy such as insurance and manufacturing in order to establish the level preparedness and the improvement required and any lessons that can be derived.

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APPENDIX 1: INTRODUCTION LETTER



University of Nairobi School of Business MBA Program – Lower Kabete campus P.O. Box 30197 Nairobi, Kenya

Date 10/9/2010

TO WHOM IT MAY CONCERN

The Bearer of this letter **Kamau Peter M.** Registration No.**D61/P/8913/04** is a Masters of Business Administration (MBA) student of the University of Nairobi.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate if you assist him/her by allowing him/her to collect data in your organization for the research.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.

Dr.W.N.Iraki

Co-ordinator, MBA program

APPENDIX 2: QUESTIONNAIRE

Part A: General information

1.	Names of respondent (Optional)
2.	Name of the bank
3.	Designation in the bank
4.	The bank annual turnover ,in Kenya shillings(Tick one)
	0 - 0.5B () $0.6 - 1B$ () $1.1 - 5B$ () $5.1 - 10B$ ()
	Over 10B ()
5.	What is the bank capilatilization level?
	0 - 0.5B () $0.6 - 1B$ () $1.1 - 5B$ () $5.1 - 10B$ ()
	Over 10B ()
Pa	rt B: Risk Management
1.	Does your bank have risk management department/unit
	No () Not sure () Yes ()
2.	If yes who is in charge
3.	What is the level of reporting for the person responsible for risk management
	Senior Management () Board of Directors ()Risk committee ()
4.	How many staff are in the risk management departments?
	0-25() 26-50() 51-75() 76-100() Over 100()
5.	Do the risk management staffs have relevant training and experience
	Not sure () No () little () Trained in other fields ()
	Yes ()
6.	Does your bank have clearly defined and documented risk management
	guidelines/policies?
	No () Not documented () Yes ()
7.	If yes, what is the level of involvement of the following persons in formulating
	risk management guidelines/policies
	Not involved fairly involved highly involved
	Board of directors () ()
	Senior management () ()

	Other employees	()		()		()	
	Third parties	()		()		()	
8.	How often are the ris Monthly () Quarte (Specify)	erly (() Othe	ers
9.	How much is the ann	ual bud	get allo	cation to risk m	nanagement fun	ction?	
	0 - Kshs.25 M ()	Kshs.2	25M – F	Kshs.50 M ()	Kshs.51M-Ks	hs.75 M ()
	Kshs.76-100 M ()	Over k	Khs.100	M()			
10.	. What types of risks d	oes vou	r bank e	encounter?			
	JI	•		less often	often	Very often	
	Credit risk	()	()	()	()	()	
	Market risk	()	()	()	()	()	
	Liquidity risk	()	()	()	()	()	
	Operational risk	()	()	()	()	()	
	Counterparty Risk	()	()	()	()	()	
	Performance risk	()	()	()	()	()	
	Compliance risk	()	()	()	()	()	
	Reputational risk	()	()	()	()	()	
	Strategic risk	()	()	()	()	()	
	Others (Specify)	()	()	()	()	()	
11.	. What types of risk ha	s your b Not su	•	oritized as criti Least	cal? Critical	very Most	t
	Credit risk	()		()	()	() ()	
	Market risk	()		()	()	() ()	
	Liquidity risk	()		()	()	()	
	Operation risk	()		()	()	()	
	Counterparty Risk	()		()	()	() ()	
	Commercy Misk	\ /		\ /	\ /		

	Performance risk	()	()	()	() ()
	Compliance risk	()	()	()	() ()
	Reputational risk	()	()	()	() ()
	Strategic risk	()	()	()	() ()
	Others (Specify)	()	()	()	() ()
12.	Does your bank have	well develope	d risk mana	gement structur	es
	No () in formative st	tage ()	Informal () Yes ()	Not sure ()
13.	Does your bank condu	act independer	nt review of	risk manageme	ent activities carried
	out? No ()	Not sure	() Ye	es ()	
14.	Which type of techniq	ques does your	bank use to	measure and n	nanage risk?
	Qualitative ()	Quant	itative ())	
15.	Which of the followin	ig risk measur	ement techn	iques are used a	at your bank?
	Scenario analysis ()	Value at risk	() Stı	ress tests ()	
	Annual Earnings at Ri	isk ()	others (spe	ecify)	•••••
16.	How well does your b	ank meet the	statutory rat	ios?	
	Lower than minimum	() just m	inimum ()	above min	imum ()
17.	What are the challer	nges faced by	your bank	in implement	ing successful risk
	management practices	s?			
		Not sure	Disagree	Agree	Strongly agree
	Lack of qualified staff	f ()	()	()	()
	High training cost	()	()	()	()
	Complexity of the pro	ocess ()	()	()	()
	Budget constraints	()	()	()	()
	Budget Constraints	\ /	` '	()	()
	Lack of management		()	()	()

APPENDIX 3: LIST OF COMMERCIAL BANKS IN KENYA

- 1. African Banking Corporation Ltd.
- 2. Bank of Africa Kenya Ltd.
- 3. Bank of Baroda (K) Ltd.
- 4. Bank of India
- 5. Barclays Bank of Kenya Ltd.
- 6. CFC Stanbic Bank Ltd.
- 7. Charterhouse Bank Ltd (Under statutory management)
- 8. Chase Bank (K) Ltd.
- 9. Citibank N.A Kenya
- 10. City Finance Bank Ltd.
- 11. Commercial Bank of Africa Ltd.
- 12. Consolidated Bank of Kenya Ltd.
- 13. Co-operative Bank of Kenya Ltd.
- 14. Credit Bank Ltd.
- 15. Development Bank of Kenya Ltd.
- 16. Diamond Trust Bank (K) Ltd.
- 17. Dubai Bank Kenya Ltd.
- 18. Ecobank Kenya Ltd
- 19. Equatorial Commercial Bank Ltd.
- 20. Equity Bank Ltd.
- 21. Family Bank Ltd
- 22. Fidelity Commercial Bank Ltd
- 23. Fina Bank Ltd
- 24. First community Bank Limited
- 25. Giro Commercial Bank Ltd.
- 26. Guardian Bank Ltd
- 27. Gulf African Bank Limited
- 28. Habib Bank A.G Zurich
- 29. Habib Bank Ltd.
- 30. Imperial Bank Ltd

- 31. Investment & Mortgages Bank Ltd
- 32. Kenya Commercial Bank Ltd
- 33. K-Rep Bank Ltd
- 34. Middle East Bank (K) Ltd
- 35. National Bank of Kenya Ltd
- 36. National Industrial Credit Bank Ltd
- 37. Oriental Commercial Bank Ltd
- 38. Paramount Universal Bank Ltd
- 39. Prime Bank Ltd
- 40. Southern Credit Banking Corporation Ltd.
- 41. Standard Chartered Bank (K) Ltd
- 42. Trans-National Bank Ltd
- 43. United Bank of Africa
- 44. Victoria Commercial Bank Ltd

(Source: CBK, Bank Supervision Annual Report 2009)