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EFFECTS OF ENTERPRISE RISK MANAGEMENT MEASURES ON PERFORMANCE OF COMMERCIAL BANKS IN KENYA

A CASE STUDY OF COMMERCIAL BANKS IN KISII TOWN

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Abstract

The development of an enterprise risk management (ERM) program enables companies to manage corporate risks in a holistic manner as opposed to the silo-based perspective in traditional risk management frameworks. Risk in a banking organization is possibility that the outcome of an action or event could bring up adverse impacts. This study was conducted to investigate the effect of ERM programs on performance of commercial banks in Kisii town, Kenya. The variables of the study were risk identification, risk measurement, risk monitoring and risk reporting. Out of the target population of 111 employees, a sample of 91 employees were selected. The research used a descriptive study design. Primary data was collected using questionnaires. Data was analyzed using regression and correlation, and descriptive statistics. The study established that it is the responsibility of the board of directors to approve and periodically review the credit risk strategy and significant credit risk policies of the bank since the strategy should reflect the bank's tolerance for risk and the level of profitability the bank expects to achieve for incurring credit risk. The study also established that risk monitoring can be used to make sure that risk management practices are in line and proper, risk monitoring also helps bank management to discover mistake at early stage. The study also revealed that *indirect avoidance responses involve doing the project in a different way, eliminating much of the uncertainty by making any impact irrelevant to the project, effective risk management requires a reporting and review structure. The study recommended that it is very crucial that the organization conducts risk measurement so as to gather valuable information that will provide valuable insights on the performance of commercial banks and that the management of commercial banks in Kenya should have an effective enterprise risk management plan.*

Keywords; Risk identification, Risk measurement, Risk monitoring, Risk reporting, Performance of Commercial banks

INTRODUCTION

Performance is company's ability to generate new resources, from day- to- day operations, over a given period of time; performance is gauged by net income and cash from operations. A portfolio is a collection of investments held by an institution or a private individual (Apps, 1996). Risk management is the human activity which integrates recognition of risk, risk assessment, developing strategies to manage it, and mitigation of risk using managerial resources (Apps, 1996). Whereas Credit risk is the risk of loss due to a debtor's nonpayment of a loan or other line of credit (either the principal or interest (coupon) or both) (Campel, et al, 1993) default rate is the possibility that a borrower will default, by failing to repay principal and interest in a timely manner. A bank is a commercial or state institution that provides financial services, including issuing money in various forms, receiving deposits of money, lending money and processing transactions and the creating of credit.

Risk management refers to a process of identifying loss exposures faced by an organization and selecting the most appropriate techniques for treating these particular exposures effectively (Rejda, 2003). Risk management can also be defined as the identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities (Wenk, 2005). Effective risk management can bring far reaching benefits to all organizations, whether large or small, public or private sector (Ranong and Phuenngam, 2009). These benefits include, superior financial performance, better basis for strategy setting, improved service delivery, greater competitive advantage, less time spent firefighting and fewer unwelcome surprises, increased likelihood of change initiative being achieved, closer internal focus on doing the right things properly, more efficient use of resources, reduced waste and fraud, and better value for money, improved innovation and better management of contingent and maintenance activities (Wenk, 2005). According to Dorfman (2007), ensuring that an organization makes cost effective use of risk management first involves creating an approach built up of well-defined risk management practices and then embedding them. These risk management practices include financial risks management practices, operational risk management practices, governance risk management practices, and strategic risk management practices.

Enterprise risk management (ERM) is a new concept that revolutionizes the traditional approach and summarizes risk management as an integrated, comprehensive and strategic system. It refers to the joint management of firm risk using multiple risk management techniques and considering the interrelations or correlation between risk exposures. According to Tseng (2007), Enterprise Risk Management (ERM) is a framework that focuses on adopting a systematic and consistent approach to managing all of the risks confronting an organization. Gordon et al. (2009) on the other hand define ERM as the overall process of managing an organization's exposure to uncertainty with particular emphasis on identifying and managing the events that could potentially prevent the organization from achieving its objective. ERM is an organizational concept that applies to all levels of the organization". This will help organization to balance the two most significant business pressures; the responsibility to deliver succeed to stakeholders and the risks associated with and generated by the business itself in a commercially achievable way. By doing so, the risk manager is constantly aware of the risks it faces and therefore constantly monitors its exposure and be positioned to change strategy or direction to ensure the level of risks it takes is acceptable.

Enterprise risk management (ERM) refers to the joint management of firm risk using multiple risk management techniques and considering the interrelations or correlation between risk exposures. Rather than focusing on traditional risk management (insurance buying, physical mitigation, liability reduction) or financial risk management (purchasing options and derivatives, diversifying investments), enterprise risk management simultaneously considers all forms of firm risk, the interrelatedness of the risks, and creates a plan to treat overall firm risk. ERM researchers and risk management consultants typically define four sources of firm risk: financial, operational, hazard, and strategic (e.g. Gates, 2006; Ai, Brocket, Cooper and Golden, 2011).

Firms have historically attempted to minimize the cost of risk through transfer, reduction, retention or avoidance of a risk exposure while an ERM program attempts to optimize firm risk in order to maximize value.

In a bid to protect and enhance enterprise value ERM aims to establish competitive advantages, optimize risk management cost and improve business performance (Protiviti, 2004). This study aims at taking a close look at the role of ERM on improving performance by improved change readiness, reduced operational losses, change readiness, reduced operational losses and surprises, improved regulatory compliance and risk responses, anticipation and communication of uncertainties inherent in performance goals, enhancing understanding of risks affecting earnings and capital, and instilling confidence for systematic risk evaluation. The value added contributions from ERM lead to the greatest benefit risk management provides i.e. to instill confidence to the board, CEO and executive management. They need to know that risks and opportunities are systematically identified, rigorously analyzed and cost effectively managed on an enterprise-wide basis, in a manner consistent with the enterprise's risk appetite and business model for creating value.

Many firms implement risk management programs in order to avoid disasters, or to stay in business after a catastrophe (CASACT, 2003). Implementing an ERM program is difficult because it requires coordination and communication throughout the firm, requires an investment of manpower and financial resources, and relies on the support of managers to succeed (Gates, 2006). Nevertheless, a well implemented ERM program may be able to increase productivity and reduce the chance of ruin through enhanced risk identification (Harrington and Niehaus, 2002).

ERM is hypothesized to add value by enabling risk quantification and optimization (Nocco and Stulz, 2006) and increasing efficiency (Hoyt and Liebenberg, 2011). However, the findings on this subject are mixed. Grace, Leverty, Phillips and Shimpi (2010) and Hoyt and Liebenberg (2011) do find increased value for ERM firms, while Lin, Wen and Yu (2010) do not find an increase in firm value using Tobin's Q as a measure of firm value.

Statement of the Problem

The capital market in Kenya is made up of stock market, bonds, development financial institutions, and pension funds. Capital market development is an important component of financial sector development and supplements the role of the banking system in economic development. Specifically, commercial banks assist in price discovery, liquidity provision, reduction in transactions costs, and risk transfer. They reduce information cost through generation and dissemination of information on firms leading to efficient markets in which prices incorporate all available information (Yartey and Adjasi, 2007). Commercial banks have faced difficulties over the years for a multitude of reasons, the major cause of serious banking problems continues to be directly related to relaxed credit standards for borrowers and counterparties, poor portfolio risk management whereby they fail to determine the best asset combination to invest in, which should have a negative correlation or lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank's counterparties thus making them default in honoring their obligations as regards repayment of the loans. This has led to the coming up with various ways of enterprise risk management that has resulted to affecting the performance of banks. By laying down strategies and policies it requires that the banking institutions have to abandon other customers who their policies do not accommodate. Also the various strategies require resource input in order to put up the structures that should put up enterprise risk control effective. Though all this have been done it still remains a challenge to commercial banks to balance between customer's needs of credit and also the policies that have been laid down by institutions which results to both positive and negative financial performance. Regardless of the various researches that have been done still a gap remain on how effective credit risk control can be achieved since still the issues of non-performing loans have not been contained completely.

The principal concern of this study was to establish the effects of enterprise risk management measures on performance of commercial banks in Kenya. This study was guided by the general and specific objectives. The general objective of the study to establish the effects of enterprise risk management measures on performance of commercial banks in Kenya. The specific objectives of the study are:

1. To establish the effect of risk identification on performance of commercial banks in Kenya.
2. To investigate the effect of risk measurement on performance of commercial banks in Kenya.
3. To examine the effects of risk monitoring on performance of commercial banks in Kenya.
4. To determine the effects of risk reporting on performance of commercial banks in Kenya.

THEORETICAL REVIEW

This study focused on various theories as discussed below.

Portfolio Theory

Margrabe (2007) postulates that even though credit risk remains the largest risk facing most commercial banks, the practice of applying modern portfolio theory to credit risk has lagged. Kairu (2009), claims that companies recognize how credit concentrations can adversely impact financial performance. As a result, a number of institutions are actively pursuing quantitative approaches to credit risk measurement. This industry is also making significant progress toward developing tools that measure credit risk in a portfolio context. They are also using credit derivatives to transfer risk efficiently while preserving customer relationships. Portfolio quality ratios and productivity indicators have been adapted. The combination of these developments has vastly accelerated progress in managing credit risk in a portfolio context.

Traditionally, organizations have taken an asset-by-asset approach to mitigation of credit risk. While each company's method varies, in general this approach involves periodically evaluating the quality of credit exposures, applying a credit risk rating, and aggregating the results of this analysis to identify a portfolio's expected losses. The foundation of asset-by-asset approach is a sound credit review and internal credit risk rating system. This system enables management to identify changes in individual credits, or portfolio trends in a timely manner. Based on the changes identified, credit identification, credit review, and credit risk rating system management can make necessary modifications to portfolio strategies or increase the supervision of credits in a timely manner. While the asset-by-asset approach is a critical component to managing credit risk, it does not provide a complete view of portfolio credit risk, where the term risk refers to the possibility that actual losses exceed expected losses. Therefore, to gain greater insight into credit risk, companies increasingly look to complement the asset-by-asset approach with a quantitative portfolio review using a credit model (Mason & Roger, 1998). Companies increasingly attempt to address the inability of the asset-by-asset approach to measure unexpected losses sufficiently by pursuing a portfolio approach. One weakness with the asset-by-asset approach is that it has difficulty identifying and measuring concentration. Concentration risk refers to additional portfolio risk resulting from increased exposure to credit extension, or to a group of correlated creditors (Richardson, 2002)

Arbitrage Pricing Theory (APT)

A more interesting alternative to portfolio theory was the Arbitrage Pricing Theory (APT) of Ross (1976). Stephen Ross's APT approach moved away from the risk vs. return relationship of the CAPM, and exploited the notion of pricing by arbitrage to its fullest possible extent. As Ross himself has noted, arbitrage-theoretic reasoning is not unique to his particular theory but is in fact the underlying logic and methodology of virtually all of finance theory.This theory subscribes to the fact that an estimate of the benefits of diversification would require that practitioners calculate the covariance of returns between every pair of assets. In their Capital Asset Pricing Model (CAPM), Morris (2001) solved this practical difficulty by demonstrating that one could achieve the same result merely by calculating the covariance of every asset with respect to a general market index. With the necessary calculating power reduced to computing these far fewer terms (betas), optimal portfolio selection became computationally feasible.

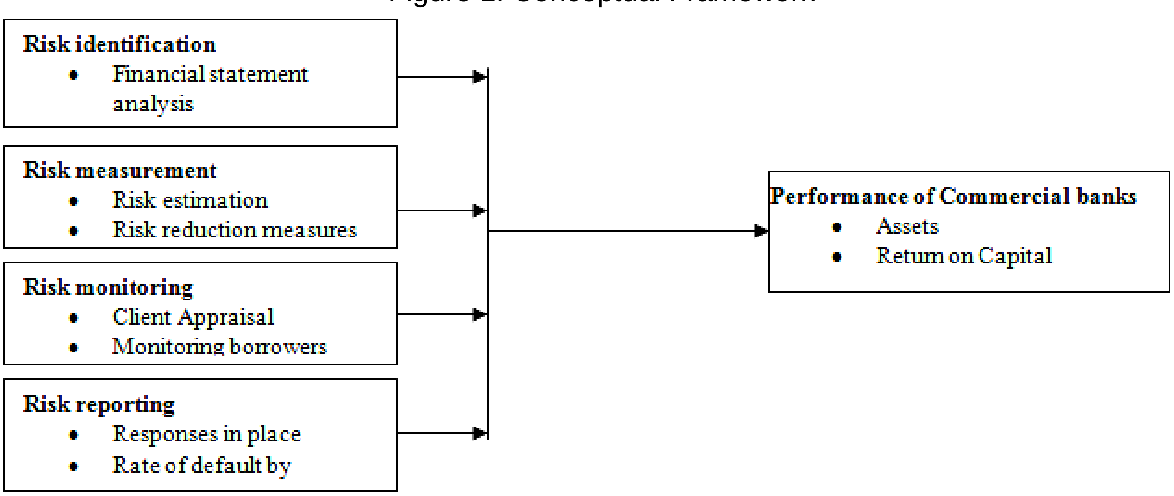
Agency theory

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). This theory 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. Consequently, agency theory implies that defined hedging policies can have important influence on firm value (Fite and Pfleiderer, 1995). Agency theory provides strong support for hedging as a response to mismatch between managerial incentives and shareholder interests. Conflicting interests in the agency relationship between managers and shareholders motivate the use of derivatives. Most senior managers have a highly undiversified financial position because they derive substantial income from their employment by the firm. According to Stulz (1990), risk aversion cause managers to deviate from acting purely in the best interest of shareholders by expending resources to hedge diversifiable risk. The time horizon of managers and shareholders may also differ because management compensation is tied to short-term accounting measures. These conflicts of interest can be mitigated by corporate risk management if compensation schemes appropriately link managers' pay to the stock price of the firm. This suggests that the use of stock option plans in a corporation can be a determinant of corporate hedging. Executive stock options can effectively reduce a manager's risk aversion and thus lower the propensity for using derivatives to decrease idiosyncratic risk.

Conceptual Framework

Conceptual framework is a scheme of concept (variables) which the researcher operationalizes in order to achieve the set objectives (Mugenda & Mugenda, 2003). Independent variables are variables that a researcher manipulates in order to determine its effect on another variable. A dependent variable attempts to indicate the total influence arising from the influence of the independent variable (Mugenda & Mugenda, 2003).

Figure 1: Conceptual Framework



Research Gap

Risk management reduces earning volatility, maximizes value for shareholders and promotes job security and financial security in the organization. Thus it can be seen that organizations will be advantageous to establish risk management practices mitigate various risks facing the organization. Over the past two decades, enterprise risk management in developing countries more especially in commercial banks have experienced a rapid setback however Firms have setup various alternatives to manage these risks (Woolridge, 2003). From the literature review it is evident that enterprise risk management measures adopted by commercial banks influence their performance, much of the work reviewed have not reviewed the direct link between risk management measures and performance of commercial banks in Kenya and this study therefore seeks to fill the existing research gap by conducting a study to establish the effect of enterprise risk management measures on performance of commercial banks in Kenya.

RESEARCH METHODOLOGY

This study adopted a descriptive survey. The target population of this study comprised of all licensed commercial banks in Kisii town. The target population of 111 employees was undertaken obtaining data from employees of the commercial banks on the employees involved in credit allocation (Table 1). From this number 11 were bank managers 1 from each of the 11 commercial banks and 100 credit staff. The study adopted a census sampling for managers and stratified sampling technique for credit staff. Therefore the sample size was 91 employees of Credit Department in commercial banks. Their distribution is as shown below;

Table 1: Target population and Sample selection

S/N	Bank names	Target Population			Sample size		
		managers	Credit staff	Total	Managers	Credit staff	Total
1	CFC	1	7	9	1	6	7
2	Chase Bank	1	4	6	1	3	4
3	Co-operative	1	14	16	1	11	12
4	DTB	1	11	13	1	9	10
5	Eco Bank	1	3	5	1	3	4
6	Equity	1	18	20	1	14	15
7	Family Bank	1	9	11	1	7	8
8	KCB	1	18	20	1	14	15
9	K-rep Bank	1	5	7	1	4	5
10	NBK	1	6	8	1	5	6
11	Post Bank	1	5	7	1	4	5
	Total	**11**	**100**	**111**	**11**	**80**	**91**

The study used a survey questionnaire. The study carried out a pilot study on 10 individuals from the target population to pretest and validate the questionnaire. Test-retest technique of reliability testing was employed whereby the pilot questionnaires were administered twice to the respondents with one week interview to allow for reliability testing. Cronbach's alpha methodology, which is based on internal consistency was determined and checked against the standard threshold of 0.7 (Alpha was greater than 0.7; instrument reliable). Before processing the responses, the completed questionnaires were edited for completeness and consistency. Quantitative data collected was analyzed by the use of descriptive statistics using SPSS (Version 22). Content analysis was used to test data that is qualitative in nature or aspect of the data collected from the open ended questions. The researcher used the multiple regression equation to analyze the data.

ANALYSIS AND FINDINGS

The study targeted a sample size of 91 respondents from which 86 filled in and returned the questionnaires making a response rate of 94.5%, this response rate was satisfactory to make conclusions for the study as Cooper and Schindler (2003), states that a response rate of between 30 to 80% of the total sample size can be used to represent the opinion of the entire population.

Risk Identification

Table 2: Statements relating to effects of risk identification on Performance

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	mean	standard deviation
Risk identification is vital for effective enterprise risk management.	24	53	8	1	0	1.91	0.25
Through information sharing among commercial banks can be able to identify various risk the face in lending to the borrower, this will help them in the mitigation of the risk through debt collection or credit sanctions	34	49	2	1	0	1.71	0.28
Risk identification is positively significant to influence enterprise risk management practices, although the risk exposures of Banks differ and may be complex than conventional financial institution.	31	51	3	1	0	1.86	0.31

The study sought to determine the extent to which respondents agreed with the above statements relating to risk identification, from the finding majority of the respondents agreed that through information sharing among commercial banks can be able to identify various risk the face in lending to the borrower, this will help them in the mitigation of the risk through debt collection or credit sanctions as shown by a mean of 1.71 and a standard deviation of 0.28, risk identification is positively significant to influence enterprise risk management practices, although the risk exposures of Banks differ and may be complex than conventional financial institution as shown by mean of 1.86 and a standard deviation of 0.31, risk identification is vital for effective enterprise risk management as shown by mean of 1.91 and a standard deviation of 0.25. The above findings concur with study findings by Kromschroder (1998) he asserts that the important thing during risk identification is not to miss any risks out and this can be done through establishing an appropriate credit risk environment. This is the responsibility of the board of directors who should approve and periodically (at least annually) review the credit risk strategy and significant credit risk policies of the bank. The strategy should reflect the bank's tolerance for risk and the level of profitability the bank expects to achieve for incurring credit risk. Inspection by branch managers and financial statement analysis are the main methods used in risk identification.

Risk measurement

Table 3: Statement on effect of risk measurement

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	mean	Standard deviation
it is useful to classify the different risks according to the amount of damage they possibly cause while assessing it.	24	46	14	1	1	1.86	0.29
the application of modern approaches to risk measurement, particularly for credit and overall banking risks is important for banks therefore credit information sharing among commercial banks can help them in their risk measurement	27	49	10	0	0	1.73	0.27
The need to adopt new measurement approaches is particularly critical for banks because of the role play.	21	56	8	1	0	1.85	0.28

The study sought to determine the extent to which respondents agreed with the above statements relating to the effect of risk measurement on performance of commercial banks in Kenya, from the finding majority of the respondents strongly agreed that; the application of modern approaches to risk measurement, particularly for credit and overall banking risks is important for banks therefore credit information sharing among commercial banks can help them in their risk measurement as shown by mean of 1.73 and a standard deviation of 0.27 followed by an argument that the need to adopt new measurement approaches is particularly critical for banks because of the role play as shown by mean of 1.85 and a standard deviation of 0.28, and finally that it is useful to classify the different risks according to the amount of damage they possibly cause while assessing it as show by mean of 1.86 and a standard deviation of 0.29, the above findings concurs with the study finding by Maryellen (2012). Maryellen asserts that risk measuring is required to exercise control and to make fact-based and defensible decisions. A disclosure of levels of risk would also be beneficial to investors/creditors. Few people challenge the use of numbers, most people find figures reliable and if the majority of influential individuals are convinces that a numerical approach is superior to any other this approach will be uncritically accepted. It seems to be a general unwillingness in society to talk about risk as a product that is constructed, controlled and consumed by networks of people. The assumption is instead that it is possible to capture all relevant facts and circumstances through measurement technologies

Risk Monitoring

Table 4: Statements relating to risk monitoring

Statement	**strongly agree**	**agree**	**Neutral**	**disagree**	**strongly disagree**	**mean**	**Standard deviation**
shareholders of the institutions can use their rights to demand information in order to judge the efficiency of the risk management system.	26	49	9	2	0	1.83	0.26
Monitoring is the last step in the corporate risk management process thus well-developed financial sector will automatically respond to its various risks by monitoring them effectively.	25	52	8	1	0	1.76	0.29
Risk monitoring can be used to make sure that risk management practices are in line and proper risk monitoring also helps bank management to discover mistake at early stage.	28	53	4	1	0	1.80	0.28

The study sought to determine the extent to which respondents agreed with the above statements relating to the effect of risk monitoring on performance of commercial banks in Kenya, from the research findings the study established that majority of the respondents agreed that; Monitoring is the last step in the corporate risk management process thus well-developed financial sector will automatically respond to its various risks by monitoring them effectively as shown by mean of 1.76 and a standard deviation of 0.29, Risk monitoring can be used to make sure that risk management practices are in line and proper risk monitoring also helps bank management to discover mistake at early stage as shown by a mean of 1.80 and a standard deviation of 0.28 and finally that shareholders of the institutions can use their rights to demand information in order to judge the efficiency of the risk management system as shown by a mean of 1.83 and a standard deviation of 0.26, the finding above concurs with the study findings by Parrenas, (2005), that risk monitoring can be used to make sure that risk management practices are in line and proper, risk monitoring also helps bank management to discover mistake at early stage, monitoring is the last step in the corporate risk management process and that the shareholders of the institutions can use their rights to demand information in order to judge the efficiency of the risk management system thus the director's report enables the shareholders to assess the status of the corporation knowledgeably and thoroughly.

Risk Reporting

Table 5: Statements relating to effect of risk reporting on performance

Statement	**strongly agree**	**agree**	**Neutral**	**disagree**	**strongly disagree**	**Mean**	**Standard deviation**
Effective risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place.	28	44	11	2	1	1.75	0.23
Indirect avoidance responses involve doing the project in a different way, which can also eliminate much of the uncertainty by making any impact irrelevant to the project	27	47	10	1	1	1.72	0.25
Risk reporting strategies should be considered as the first option, since it is clearly best to remove risk completely if possible	22	54	8	1	1	1.78	0.27

The study sought to determine the respondent's level of agreement with the above statements relating to effect of risk reporting on performance of commercial banks in Kenya. From the research findings the study established that majority of the respondents agreed that Indirect avoidance responses involve doing the project in a different way, which can also eliminate much of the uncertainty by making any impact irrelevant to the project as shown by a mean of 1.72

and a standard deviation of 0.25, Effective risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place as shown by a mean of 1.75 and a standard deviation of 0.23, Risk reporting strategies should be considered as the first option, since it is clearly best to remove risk completely if possible as shown by a mean of 1.78 and a standard deviation of 0.27, the above findings concur with the findings by (Sundararajan, 2007) according to Sundararajan (2007), Investors and business managers should ensure proper risk reporting through risk assessment so as to determine things like whether to undertake a particular venture, what rate of return they require to make a particular investment and how to mitigate an activity's potential losses. A comprehensive risk analysis and mitigation methods for various risk arising from financing activities and from the nature of profit and loss sharing is the source of funds especially investment account holders. The application of modern approaches to risk analysis, particularly for credit and overall banking risks is important for Banks.

Performance of Commercial Banks

Table 6: Bank's Profit Per Year In '000 000 Shillings Due to Risk Management

Indicators	0-500	500-1000	1000-5000	5000-10000	Above 10000	Mean	Standard deviation
Return on assets	28	42	13	2	1	1.91	0.30
Return on equity	27	40	17	1	1	1.84	0.28

The study sought to determine the respondent's level of agreement with the above statements relating to bank's profit per year in '000 000 shillings due to risk management. From the research findings the study established that majority of the respondents agreed that Return on equity contributed the highest on bank's profit per year as shown by a mean of 1.84 and a standard deviation of 0.28 followed by return on assets as shown by a mean of 1.91 and a standard deviation of 0.30, the above findings concurs with the findings by (Pagano, 2001) according to Pagano (2001), that risk management is an important function of financial institutions in creating value for shareholders and customers. The corporate finance literature has linked the importance of risk management with the shareholder value maximization hypothesis. This suggests that a firm will engage in risk management policies if it enhances shareholder value thus, effective risk management either in non-banking firms or in banking entities is expected to enhance the value of the firm and shareholder wealth.

Regression Analysis

The four independent variables that were studied, explain 68.0% of the effects of enterprise risk management measures on performance of commercial banks in Kenya as represented by the R2. This therefore means that other factors not studied in this research contribute 32.0% of the effects of enterprise risk management measures on performance of commercial banks in Kenya. Therefore, further research should be conducted to investigate the other factors to explain the 32% not explained by the factors investigated under this research. As per the SPSS generated the established model summary was:

Table 7: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.871	.763	.746	.223

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. from the findings in the above table the value of adjusted r squared was 0.746 an indication that there was variation of 74.6 percent on performance of commercial banks in Kenya due to changes in risk identification, risk measurement, risk monitoring and risk reporting at 95 percent confidence interval. this shows that 74.6 percent changes in performance of commercial banks in Kenya could be accounted to risk identification, risk measurement, risk monitoring and risk reporting. R is the correlation coefficient which shows the relationship between the study variables, from the findings shown in the table above is notable that there exists strong positive relationship between the study variables as shown by 0.871.

Table 8: Regression Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.342	1.023		1.312	.001
	risk identification	.323	.118	.213	2.636	.002
	risk measurement	.343	.125	.207	2.728	.000
	risk monitoring	.322	.124	.206	2.597	.001
	risk reporting	.346	.114	.211	2.947	.000

Predictor variables: (Constant), risk identification, risk measurement, risk monitoring and risk reporting.

From the data in table 8, the established regression equation was

$$\mathbf{Y = 1.342 + 0.323X_1 + 0.343X_2 + 0.322X_3 + 0.346X_4}$$

From the findings in the multiple regression equation it was revealed that holding risk identification, risk measurement, risk monitoring and risk reporting to a constant zero, the performance of commercial banks in Kenya would be at 1.342, a unit increase in risk identification would lead to an increase in performance of commercial banks in Kenya by factors of 0. 323, a unit increase in risk measurement would lead to increase performance of commercial banks in Kenya by factors of 0.343, a unit increase in risk monitoring would lead to increase an in performance of commercial banks in Kenya by a factor of 0.322 and a unit increase in risk reporting would lead to a increase in performance of commercial banks in Kenya by a factors of 0.346. On the other hand, Beta expresses the relative importance of each independent variable in standardized terms. Firstly, the results show that all the independent variables (risk identification, risk measurement, risk monitoring and risk reporting) are significant predictors. In conclusion, a multiple regression was run to predict the performance of commercial banks in Kenya from the independent variables (risk identification, risk measurement, risk monitoring and risk reporting). These variables statistically, significantly predicted performance of commercial banks in Kenya. All the variables were significant as their significant value was less than ($p<0.05$)

CONCLUSIONS

From the findings the study established that Risk identification is positively significant to influence risk management practices thus the study concludes that risk identification had positive influence on performance of commercial banks in Kenya.

The study established credit information sharing among commercial banks can help them in their risk measurement, credit information sharing among commercial banks can also help them in their risk analysis, the application of modern approaches to risk measurement, particularly for credit and overall banking risks is important for banks thus the study concludes that risk measurement had a positive effect on performance of commercial banks in Kenya.

The study revealed that risk monitoring can be used to make sure that risk management practices are in line and proper risk monitoring also helps bank management to discover mistake at early stage thus the study concludes that risk monitoring has a positive impact on performance of commercial banks in Kenya.

The study found ascertained that effective risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place and therefore investors and business managers should therefore ensure proper risk reporting through risk assessment so as to determine things like whether to undertake a particular venture, what rate of return they require to make a particular investment and how to mitigate an activity's potential losses thus the study concludes that risk reporting had a positive impact on performance of commercial banks in Kenya.

RECOMMENDATIONS

Based on the findings, the study recommends that the management on commercial banks should consider adopting risk identification as an enterprise risk management measures on performance. This will allow the management to create a comprehensive understanding that can be leveraged to influence stakeholders and create better decisions.

The study also recommends that is very crucial that the organization conducts risk measurement this will help the organization to gather valuable information that will provide valuable insights on the performance of commercial banks and the necessary input to find effective responses to optimize the risks.

The study recommends that the management of commercial banks in Kenya keeps on monitoring as well as re-assessing the effect and frequency of mitigation measures adopted. This will help to identify whether the adopted counteractive measures are making any acceptable difference.

The study recommends that the management should have an effective enterprise risk management plan. This will help to identify internal and external risks which are likely to cause a significant increase in the budget, disruption of the schedule or performance problems. There is need to adopt new measures is particularly critical for Banks because of the role they play and the unique mix of risks in finance contracts.

The senior management of the commercial 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. Banks therefore need to start collecting data, as this can be significant advantages in pooling information and using common definitions, standards, and methodologies for credit risk which is argued can lead to significant losses in all financial institutions

FURTHER STUDIES

This research had intended to establish the effects of enterprise risk management measures on performance of commercial banks in Kenya. Other researcher may focus on the relationship between risk management measures and financial performance in commercial in Kenya.

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APPENDIX: Questionnaire

Risk Identification

Indicate your level of agreement with the following statements relating to the effect of risk identification on performance of commercial banks in Kenya? (5 = strongly agree, 4 agree, 3= neutral 2= disagree and 1 = strongly disagree)

Statements	1	2	3	4	5
Risk identification is vital for effective enterprise risk management					
Through information sharing among commercial banks can be able to identify various risk the face in lending to the borrower, this will help them in the mitigation of the risk through debt collection or credit sanctions					
Risk identification is positively significant to influence enterprise risk management practices, although the risk exposures of Banks differ and may be complex than conventional financial institution					

Risk Measurement

Indicate your level of agreement with the following statements relating to the effect of risk measurement on performance of commercial banks in Kenya? (5 = strongly agree, 4 agree, 3= neutral 2= disagree and 1 = strongly disagree)

Statements	1	2	3	4	5
it is useful to classify the different risks according to the amount of damage they possibly cause while assessing it					

the application of modern approaches to risk measurement, particularly for credit and overall banking risks is important for banks therefore credit information sharing among commercial banks can help them in their risk measurement					
The need to adopt new measurement approaches is particularly critical for banks because of the role play					

Risk Monitoring

Indicate your level of agreement with the following statement s relating to the effect of risk monitoring on performance of commercial banks in Kenya? (5 = strongly agree, 4 agree, 3= neutral 2= disagree and 1 = strongly disagree)

Statements	1	2	3	4	5
shareholders of the institutions can use their rights to demand information in order to judge the efficiency of the risk management system					
Monitoring is the last step in the corporate risk management process thus well-developed financial sector will automatically respond to its various risks by monitoring them effectively					
Risk monitoring can be used to make sure that risk management practices are in line and proper risk monitoring also helps bank management to discover mistake at early stage					

Risk Reporting

Indicate your level of agreement with the following statement s relating to the effect of risk reporting on performance of commercial banks in Kenya? (5 = strongly agree, 4 agree, 3= neutral 2= disagree and 1 = strongly disagree)

Statements	1	2	3	4	5
Effective risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place					
Indirect avoidance responses involve doing the project in a different way, which can also eliminate much of the uncertainty by making any impact irrelevant to the project					
Risk reporting strategies should be considered as the first option, since it is clearly best to remove risk completely if possible					

Performance of Commercial Banks

What is your bank's profit per year in '000 000 shillings due to risk management? (Tick one box)

Indicators	0-500	500-1,000	1,000-5,000	5,000-10,000	Above 10,000
return on assets					
return on equity					