

Effects of Risk Appetite on Corporate Investment in Selected Micro Finance Institutions in Rwanda: A Survey Conducted on Selected Banks in Rwanda

¹David Chege Magu, ²Dr. Patrick Mulyungi (PhD), ³Ngusale A Vincent

^{1,2,3} Jomo Kenyatta University of Agriculture and Technology, Kigali, Rwanda

Abstract: Risk Management Practices is currently a much-debated topic and a new concept being researched and implemented by various large organizations. However, currently there seems to be much confusion on this topic in terms of an overall Risk Management Practices statement. Uncertainty exists, for example, if there must be a statement for each primary risk type the organization faces, or should there be an overall Risk Management Practices statement for the organization Risk Management Practices is about achieving corporate goals. For most Microfinance institutions (MFIs), dual goals exist i.e. the social and economic perspectives. This study sought to analyze the effect of Risk Management Practices on corporate investment in selected micro finance in Rwanda. Specifically, Survey study aimed at establishing the influence of operational risk management practices, strategic risk management practices, financial risk management practices and governance risk management practices on corporate investment in selected micro finance in Rwanda. The study adopted descriptive research design. The study targeted 95 managers from finance and operations departments. The sample size was 77 respondents. The study used both primary and secondary data, where questionnaires, interview and annual reports of the micro finance was used. Primary data for the study was collected using structured questionnaires that were administered to the respondents. Narrative data obtained from interviews and open-ended questions in the questionnaire were analyzed using qualitative approaches. The study revealed that the determinants of corporate investments in micro financial intuitions in Rwanda firms were governance, strategy, operational and financial risks. It was revealed that holding Operational risk, Strategic risks, financial risks and Governance risk to a constant zero, corporate investment in selected micro finance in Rwanda would be at 0.194. A unit increase on operational risks would lead to increase in corporate investment in selected micro finance in Rwanda by a factor of 0.769, a unit increase in Strategic risks would lead to increase in corporate investment in selected micro finance in Rwanda by a factor of 0.824, a unit increase in Financial risks would lead to increase in corporate investment in selected micro finance in Rwanda by a factor of 0.484 and unit increase in governance risks would lead to increase in corporate investment in selected micro finance in Rwanda by a factor of 0.664. The study recommends that in order to effectively manage operations and reduce operational risks the management team needs carefully identify all the risks it may fall

Vulnerable of and establish the appropriate mechanisms to curb unexpected risks whenever they pop up. Risk management will help to reduce surprises, improved planning, enhance performance

And effectiveness and improved relationships with stakeholders. The study recommends that Corporate Social Responsibility is important because businesses are based on trust and foresight. Establishing and keeping trust with customers, communities and regulators isn't simple and can be easily damaged or lost. To be successful in the long-term, companies need to think beyond what's affecting them today to what's going to happen tomorrow. This isn't just about addressing changes to technology or the needs of customers, but also taking into account alterations in social, environmental and governance issues.

Keywords: operational risk management practices, strategic risk management practices, financial risk management practices, governance risk management practices and corporate investment.

1. INTRODUCTION

1.1 Background:

It is important and essential to understand how to manage risk for any organization whether public or private. The private sector organizations risk management is designed to control risks that could lead to failure if not properly managed. The profit maximization is the end result in the private sector. In the public sector managing of the risk increases the likelihood of an agency achieving its primary mission and strategic objectives (Hardy, 2010). Therefore, the success of an organization to meet its objectives anchors around how it successfully manages the risks it faces whether private or public.

The study is based on the decision theory and stakeholders Theory. Risk management is linked to decision theory in that decision has to be made with the objective of eliminating or reducing risks facing the business firms. Risk management makes decisions to manage the uncertainties whilst decision theory prescribes the correct course of action that would be applied to deal with the risk. On the other hand, the stakeholder theory provides that the purpose of an organization is to create much value as possible to the stakeholders.

Organizations face a number of risks. The risks can disrupt achievement of the strategic as well as operational objectives. Risk exists as a consequence of uncertainty and is present in all activities whatever the size or complexity, industry or business sector (Mcnaull & Loy, 2008). Risk is a broader concept than the traditional view of merely a threat. It includes threats (damaging events) which would lead to failure to achieve objectives and opportunities (challenges) which if exploited could offer an improved way of achieving the desired objectives but which could potentially have negative impacts. That is the risk of taking or not taking opportunities (Mcnaull et al., 2008).

There are different classifications of risks that give properties or characteristics of risk and sources. Financial and non-financial risk can be distinguished. According to Vaughan (1997), financial risks are those risks that have financial loss, consequences or impact. Financial loss considers relationship between an organization and an asset and the projected income that could be lost or damaged (Cienfuegos Spikin & TwenteHolanda, 2013).

The Risk Management team has to uncover all the risks that can affect the organization. The challenge is to determine an appropriate techniques or a combination of techniques of risk identification so that various risks can be taken care of appropriately (Gustavsson, 2006). Another challenge is how to treat the risk because of various types of risk treatment option which include accept risks, avoid, outsource, share, or transfer (Schanfield and Helming 2008). Dependence on mathematical risk models where the model probably accepts risks at certain levels yet entities should not accept it in their everyday operations (The Chartered Institute of Management Accountants, 2010). Also non-existence of established routines for risk analysis, feedback and follow ups within the company. This is reflected by employees knowing that they should analyze the risks that they are in charge of but they lack directions and have different ways to analyze risks in different parts of the company (Gustavsson, 2006). Finally, there is a challenge in implementation where in large organizations top management lacks insight of risk management on a local level (Gustavsson, 2006).

The focus on operational risk increased since the publication of the regulatory framework by the Basel Committee on Banking Supervision in June 2006 (Basel 2006). This framework deals with guidelines to link a minimum capital requirement to the risks to enhance greater consistency of capital adequacy. This focus is especially applicable to the banking industry, mainly due to the regulatory requirements placed on the industry by the central banks. According to Jobst (2007), the New Basel Capital Accord underscores the need to heed new threats to financial stability from operational risk. As such, it became crucial to understand the concept of operational risk management, because the new capital rules require from banks to allocate a capital charge to operational risk and not only credit and market risk. Therefore, operational risk was accepted as one of the major risk types that must be managed by banks alongside credit and market risks. According to Wikipedia (June 2014), the topic of market and credit risk has been the subject of much debate since mid-1990. However, the financial crisis in 2008 indicated that there are still challenges in managing credit and market risk which lead to Basel III regulations for banks. Although the New Capital Accord focused more on capital charges for credit and market risk, various events such as the September 2001 terrorist attacks, losses due to rogue trading (Barings Bank amongst others) indicate the importance of operational risk management. Furthermore, operational

concerns such as unauthorized processes, inadequate systems, human resource problems and certain external events, elevated the management of operational risk as a primary risk type even more. During the establishment of an operational risk management framework, various practical problems were encountered. Of these problems were, for example, defining operational risk, the measurement thereof, and identifying suitable methods to manage it and how it could add value by being managed. A concept that currently seems to be under scrutiny and imposing practical challenges for a number of corporate organizations, that implemented an operational risk management framework, is that of a Risk Management Practices statement. It seems that there is currently not a generally accepted definition for Risk Management Practices and there are various views on what it should be.

1.2 Statement of the Problem:

A major barrier to the implementation of management policy effectively by these micro bank institutions is the lack of a definition of Risk Management Practices. Risk Management Practices lies at the heart of good management, yet the term is frequently misunderstood; meaning different things to different people. Yet the micro-banks management, grossly controlled by their founders, fails to see the relationship between the organization's value (or expressed as an annual return) and the maximum acceptable level of risk- which is expected to be upward-sloping but convex (so that increase in risk have to be "compensated" by increasing larger amounts of value). As management interacts and makes decisions, they must also reflect on the overall Risk Management Practices of the company which is an aggregate summary of assertions that provides the basis for clarifying both the risks the company is actively taking the and risks that are purposefully avoided (Perrin, 2009). The objective of this study is to evaluate Risk Management Practices and risk tolerance and how they impact the performance of micro-banks. The researcher's secondary objective is to ascertain the level of risk appropriate to achieve corporate objective and how Risk Management Practices could be managed in micro-banks.

1.3 Objectives of the study:

1.3.1 General objective:

The general objective of the study was to analyze the effect of risk appetite on corporate investment in selected micro finance in Rwanda.

1.3.2 Specific objectives:

The specific objectives were:

1. To determine the influence of operational risk management practices on corporate investment in Rwanda
2. To establish the effects of strategic risk management practices on corporate investment in Rwanda
3. To evaluate the influence of financial risk management practices on corporate investment in Rwanda
4. To assess how governance risk management practices affects corporate investment in Rwanda

1.4 Research questions:

This study was guided by the following research questions:

1. Do operational risk management practices influence corporate investment in Rwanda?
2. What are the effects of strategic risk management practices on corporate investment in Rwanda?
3. What is the influence of financial risk management practices on corporate investment in Rwanda?
4. Do governance risk management practices affect corporate investment in Rwanda?

2. CONCEPTUAL FRAMEWORK

Conceptual framework is a schematic presentation which identifies the variables that when put together explain the issue of concern (Peters, Elmendorf, Kandola & Chellaraj, 2000). It is a set of broad ideas used to explain the relationship between the independent variables (factors) and the dependent variables (outcome) (Coulthard, 2004).

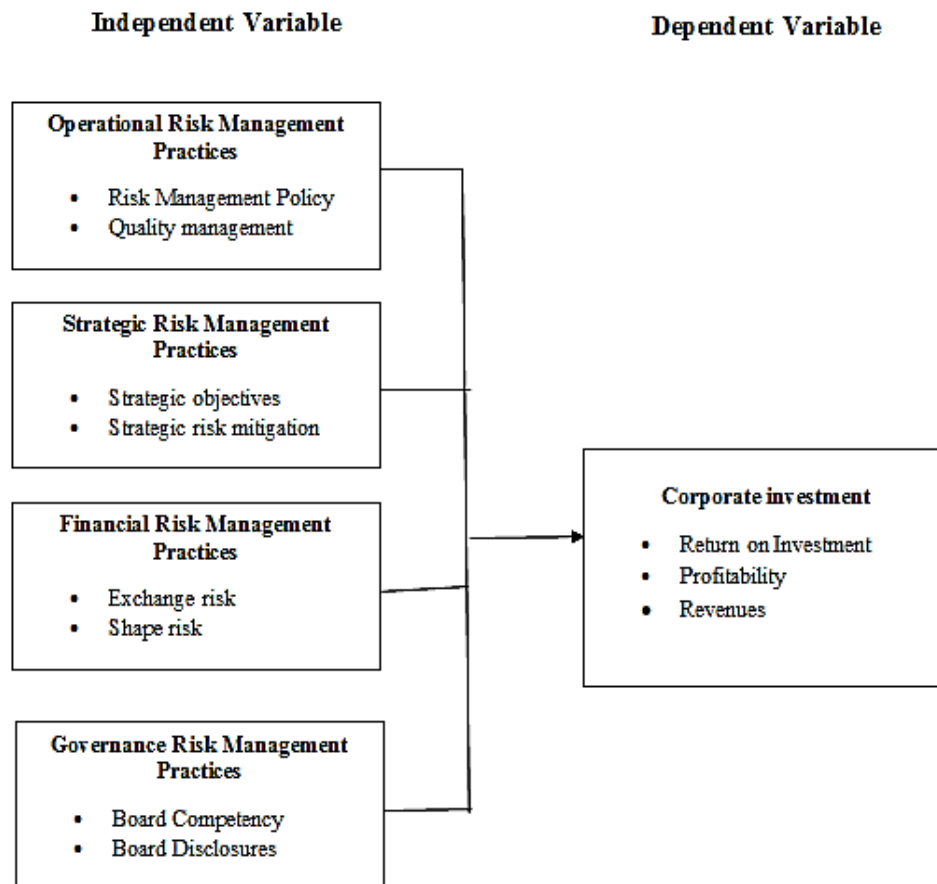


Figure 1: Conceptual framework

3. RESEARCH DESIGN

The study adopted descriptive survey design. A descriptive survey typically seeks to ascertain respondents' perspectives or experiences on a specified subject in a predetermined structured manner. A Descriptive study was used to analyze the effect of risk appetite on corporate investment in selected micro finance in Rwanda. A descriptive research is designed to describe the characteristics of a phenomenon e.g. discovering variation within variables (Mugenda & Mugenda, 1999). Survey research consisted of structured questions to assess behaviors, beliefs or attitudes within a population. According to Kothari (2004), a descriptive design involves planning, organizing, collection and analysis of data so as to provide information being sought. Descriptive research design portrays the variables by answering who, what, and how questions. The design was deemed appropriate for this study because the main interest is to analyze the effect of risk appetite on corporate investment in selected micro finance in Rwanda.

3.1 Target population:

According to Cooper and Schindler (2008), a population is a well-defined set of people, services, elements, and events, group of things or households that are being investigated. The target population of this study was 95 managers from finance and operations departments. By population the researcher means complete census of the sampling frames. The population of interest in this study is homogeneous everyone has equal chance to be included in the final sample that is drawn.

This study was carried out in the 17 registered microfinance banks in Rwanda. A list of all the banks is in Appendix I.

3.2 Sample Frame:

Sampling frame is a list of all the population subjects that the researcher had targeted during the study. Using the Yamane's formula, the proportions of the sample size the computed sample strata are shown in table 3.1. The sample size of five; Executive Committee, Senior Management, Middle Managers, Selected Branch Manager and Headquarter Staff was used since at the main branch most of the operations regarding the effect of risk appetite on corporate investment. The sample frame for this study is shown in the table 1

Table 1 Sampling Frame

Area of Operation	Population	Proportions
Executive Committee	6	6
Senior Management	12	10
Middle Managers	21	17
Selected Branch Manager	24	20
HQ Staff	32	24
Total	95	77

3.3 Sample size and sampling procedure:

A sample size of 77 respondents was determined from a total population of 95 individuals using the formula by Yamane (1967). Stratified random sampling technique was used to select the managers. Stratified random sampling technique ensures that different groups of a population are adequately represented in the sample. Stratified sampling divides the population into homogeneous groups such that the elements within each group are more alike than the elements in the population as a whole (Nachimas & Nachimas 2008). Random sampling was used to select individuals from the various strata.

$$n = \frac{N}{1 + N(e)^2}$$

Where;

n= Sample size

N=Total population size (77)

e= 0.05 level of significance

$$n = \frac{95}{1 + 95(0.05)^2} = 77$$

4. REGRESSION ANALYSIS

Table.2: Regression model summary showing the combined effect

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.901 ^a	.811	.798	.235

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 0.798 an indication that there was variation of 79.8% on operational risks and losses in manufacturing firms due to changes in governance, strategy, policy, periodic evaluation and organization structure at 95% confidence interval. This shows that 79.8 % changes in operational risks and losses in manufacturing firms could be accounted for by changes in in governance, strategy, policy, periodic evaluation and organization structure. R is the correlation coefficient which shows the relationship between the study variables, from the findings shown in the table above there was a strong positive relationship between the study variables as shown by 0.901.

Table 3: Regression analysis showing the combined effect

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.194	.050		1.887	.061
	Operational risk	.769	.036	.062	1.923	.001
	Strategic risks	.824	.040	.850	20.790	.000
	Financial risks	.484	.034	.079	2.449	.015
	Governance risk	.664	.026	.010	.363	.020

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.194	.050		1.887	.061
	Operational risk	.769	.036	.062	1.923	.001
	Strategic risks	.824	.040	.850	20.790	.000
	Financial risks	.484	.034	.079	2.449	.015
	Governance risk	.664	.026	.010	.363	.020
a. Dependent Variable: Corporate investments						

Using linear regression analysis from SPSS data bases, the effect of risk appetite on corporate investment in selected micro finance in Rwanda.

$$=0.194+0.769x1+0.824x2+0.484x3+0.664x4+ \epsilon.$$

From the above regression equation, it was revealed that holding Operational risk, Strategic risks, financial risks and Governance risk to a constant zero, corporate investment in selected micro finance in Rwanda would be at 0.194. A unit increase on operational risks would lead to increase in corporate investment in selected micro finance in Rwanda by a factor of 0.769, a unit increase in Strategic risks would lead to increase in corporate investment in selected micro finance in Rwanda by a factor of 0.824, a unit increase in Financial risks would lead to increase in corporate investment in selected micro finance in Rwanda by a factor of 0.484 and unit increase in governance risks would lead to increase in corporate investment in selected micro finance in Rwanda by a factor of 0.664.

5. CONCLUSIONS

The study revealed that a unit increase in governance would lead to decrease in operational risks and loses in micro finance institutions. The study further established that a unit increase in strategy would lead to decrease in operational risks and loses in manufacturing firms. The study established that a unit increase in policy would lead to decrease in operational risks and loses in micro financial intuitions in Rwanda.

The study found that a unit increase in periodic evaluation would lead to decrease in operational risks and loses in micro financial intuitions in Rwanda, it was further revealed that a unit increase in organization structure would lead to decrease in operational risks and loses in micro financial intuitions in Rwanda.

The study concludes that operational risk culture in the organization sets the tone as to how an institution implements and executes its operational risk management strategy, successfully executed risk strategy often results in risk being firmly embedded in the vision, strategies and tactics of the organization and that the organization top management identify.

The study revealed that centralized aggregation of operational risk information collected via various self-assessments across the organization provides useful insight for the desired hierarchical structure. Operational risk management structure in the firms is the overall risk scenario which serves as a guideline. The firm’s strategy for operational risk drives the other components within the management framework and provides clear guidance on risk appetite or tolerance.

6. RECOMMENDATIONS

The study recommends the following based on the findings; from the summary and concussion the study recommends that in order to effectively manage operations and reduce operational risks the management team needs carefully identify all the risks it may fall vulnerable off and establish the appropriate to mechanisms to curb unexpected risks whenever they pop up.

Risk management will help to reduce fewer surprises, improved planning, enhance performance and effectiveness and improved relationships with stakeholders. The study recommends that Corporate Social Responsibility is important because businesses are based on trust and foresight. Establishing and keeping trust with customers, communities and regulators isn’t simple and can be easily damaged or lost.

To be successful in the long-term, companies need to think beyond what’s affecting them today to what’s going to happen tomorrow. This isn’t just about addressing changes to technology or the needs of customers, but also taking into account alterations in social, environmental and governance issues.

Areas for further research:

The study sought to establish the effect of risk appetite on corporate investment in selected micro finance in Rwanda.

There is need for a study to be conducted on the relationship between determinants of operational risks and losses and financial performance of micro finance in Rwanda.

The study recommends a study to be done on the relationship between corporate governance and operational risks and losses in micro finance in Rwanda.

There is need for a study to be done on the effects of strategy implementation on operational risks and losses in micro finance in Rwanda.

REFERENCES

- [1] Alrashidi, A., and Abdulaziz, O., (2012), *The Impact of Operational Risk Management on the Financial Development and Economic Growth*, European Journal of Business and Management, 4 (5): 15-21.
- [2] Althonayan, A., Keith, J., and Misiura, J., (2011), *Aligning Enterprise Management with Business Strategy and Information systems*, European, Mediterranean and Middle
- [3] Eastern Conference on Information Systems, 2011 May 30-31 2011 pg 109-129.
- [4] Andersen, T. J., (2008), *The Performance Relationship of Effective Risk Management: Exploring the Firm-Specific Investment Rationale*, Long Range Planning, 41(2): 155- 176.
- [5] Andersen, T. J., and Schroder, P. W. (2010), *Strategic Risk Management Practice: How to Deal Effectively with Major Corporate Exposures*, Cambridge University Press.
- [6] Barton, T. L., Shenkir, W. G., and Walker, P. L. (2002), *Making Enterprise Risk Management Pay Off: How Leading Companies Implement Risk Management*, Financial Times/Prentice Hall, Upper Saddle River, NJ.
- [7] Beasley, M. S., Clune, R. and Dana, R., (2005), *Enterprise Risk Management: An Empirical Analysis of Factors Associated with the Extent of Implementation*, Journal of Accounting and Public Policy, 24(6), 521-531.
- [8] Beasley, M. S., Clune, R. and Hermanson, D. R. (2006). *The impact of enterprise risk management on the internal audit function*. Institute of Internal Auditors (IIA) Research Foundation and the assistance. 1- 28.
- [9] Bettis, R. (1983), *Modern Financial Theory, Corporate Strategy and Public Policy: Three Conundrums*, Academy of Management Review, 8, 406-414.
- [10] Bhattamishra, R., and Barrett, C. B. (2008), *Community-based Management Arrangements: An Overview and Implications for Social Fund Program Design*, Social Protection Discussion Paper No 0830, Washington DC: World Bank.
- [11] Carey, A. (2001), *Effective Risk Management in Financial Institutions: The Turnbull Approach*, Balance Sheet, 9 (3), 24-27.
- [12] Chorafas, D. N., (2010), *Managing Operational Risk: Risk Reduction Strategies for Investment and Commercial Banks* (4th Edition), London: Euromoney Books.
- [13] Clarke, P. (2007). *International Corporate Governance: A comparative Approach*. Oxon: Routledge.
- [14] Conti, C., and Mauri, A., (2008), *Corporate Financial Risk Management: Governance and Disclosure post IFRS 7*, Journal of Financial Risk Management, 2, 20-27.
- [15] Cooper, D. R., and Schindler, P. S. (2006), *Business Research Methods, Empirical Investigation*. Journal of Service Research, 1(2), 108-28.
- [16] Crouhy, M., Galai, D. and Mark, R., (2006), *The Essentials of Risk Management*, New York: McGraw-Hill.
- [17] Cummins, J. D., and Mahul, O. (2009a), *Catastrophe Risk Financing in Developing Countries: Principles for Public Intervention*, Washington, DC: The International Bank for Reconstruction and Development / The World Bank.

- [18] Doherty, N. A., (2006), *Integrated Risk Management – Technologies & Strategies for Managing Corporate Risk*, McGraw-Hill, New York, NY.
- [19] Daud, W. N, Zald, M. & Hussein, R. (2010). *The Effect of Employee Involvement on Enterprise Risk Management Practices: Evidence from Malaysia*. International Business and Economics Research Journal 9(11), 34 – 45.
- [20] Dorfman, M. S., (2007), *Introduction to Risk Management and Insurance*, (9 Englewood Cliffs, N.J: Prentice Hall
- [21] Ekka P, Chaundry S, Sinha R (2011). *Risk management: Integrating SPM into microfinance capacity building*. McGraw-Hill Publishing, Co. Ltd. New Delhi-India.
- [22] Fraser, I., and Henry, W., (2007), *Embedding Strategic Risk Management: Structures and Approaches*, Managerial Auditing Journal, 22 (24): 392-409
- [23] Gilbert, C., (2007), *Enterprise Risk Management Techniques and Practices*, Incisive Media Investments Limited
- [24] Gisemba, P. N., (2010), *The Relationship between Credit Risk Management Practices and Financial Performance of SACCOs in Kenya*, Unpublished MBA Dissertation, University of Nairobi, Nairobi.
- [25] Gomez, L. R. (2005). *A theory of Global Strategy and Firm Efficiencies: Considering the Effects of Cultural Diversity*. Journal of Management, 25(4), 587-606.
- [26] Gordon, L. A., Loeb, M. P. and Tseng, C. Y. (2009), *Enterprise Risk Management and Firm Performance: A Contingency Perspective*, Journal of Accounting and Public Policy, 28(4), 301-327.
- [27] Gossy, G., (2008), *A Stakeholder Rationale for Risk Management: Implications for Corporate Finance Decisions*, Google Books.
- [28] Gupta, P. K. (2009), *Enterprise Wide Risk Management-Strategic Implications: Challenges of the Knowledge Society* (3rd Edition), Wiley, Hoboken, NJ.
- [29] Holton, G. A., (2004), *Defining Risk*, Financial Analysts Journal, 60 (6), 19–25.
- [30] International Monetary Fund (IMF) (2008), *Balance of Payments and International Investment Position Manual* (6th Edition), BPM6, Washington, DC: IMF.
- [31] Jorion, P. (2001), *Value at Risk – The New Benchmark for Managing Financial Risk*, McGraw- Hill, New York, NY.
- [32] Kaplan, R. S., (2009), *Risk Management and the Strategy Execution System*, Balanced Scorecard Report, 11(6), 1-6.
- [33] Kariuki, T., (2014), *Challenges Of Strategy Implementation At The Industrial And Commercial Development Corporation, Kenya*, Unpublished MBA Project, University of Nairobi.
- [34] Kioko, K. T. (2008) *A Survey Of Credit Risk Management Techniques Of Unsecured Bank Loans Of Commercial Banks In Kenya*, Unpublished MBA Project, University of Nairobi
- [35] Kipchirchir, D. T. (2008) *Foreign Exchange Risk Management Practices: A Survey of Motor Vehicle Industry in Kenya*, Unpublished MBA Project, University of Nairobi.
- [36] Kithinji A. M., (2010), *Credit Risk Management and Profitability of Commercial Banks in Kenya*, Unpublished MBA Project, University of Nairobi, Kenya.
- [37] Kleffner, A.E., Ryan, B.L and McGannon B., (2003), *The Effect of Corporate Governance of the Use of Enterprise Risk Management*, Risk Management and Insurance Review, 6(1): 53 – 73.
- [38] Kombo A., Wesonga J., Murumba N., and Makworo E., (2011), *An Evaluation of the Impact of Risk Management Strategies on Micro-Finance Institutions Financial Sustainability: A Case of Selected Micro Finance Institutions in Kisii Municipality, Kenya*, Educational Research, 2(5), 1149-1153.
- [39] Kothari, C. R., (2008), *Research Methodology: Methods and Techniques*, (2Prakashan.
- [40] Kothari, S. P., Ramanna, K., and Skinner, D. J. (2010), *Implications for GAAP from an Analysis of Positive Research in Accounting*, Journal of Accounting and Economics, 50(2), 246-286.

- [41] Lam, J. (2003), *Enterprise Risk Management: From Incentives to Controls*, Wiley Finance Series, Wiley, Hoboken, NJ.
- [42] Liebenberg, A. P., and Hoyt, R. E., (2003), *The Determinants of Enterprise Risk Management: Evidence from the Appointment of Chief Risk Officers*, Risk Management & Insurance Review, 6, 37-52.
- [43] Liebenberg, A., Hoyt, R., (2006) *The Determinants of Enterprise Risk Management: Evidence From the Appointment of Chief Risk Officers*. Risk Management and Insurance Review 6 (1), 37-52
- [44] Lintner, J. (1965), *The Valuation of Risk Assets and the Selection of Risky Investments in Stock Portfolios and Capital Budgets*, The Review of Economics and Statistics, 47, 13-37
- [45] Mandelbrot, B., and Hudson, R. L. (2004), *The (Mis)Behaviour of Markets: A Fractal View of Risk, Ruin, and Reward*, London: Profile Books.
- [46] Mango, D., (2007), *An Introduction to Insurer Strategic Risk*, Guy Carpenter & Company, LLC, 144-172.
- [47] Markowitz, H. M. (1952), Portfolio Selection, Journal of Finance 7 (1), 77-91.
- [48] McGee, R.W. (2009). Corporate governance in transition economies, Springer, Florida
- [49] McShane, G. K., Nair, A., and Rustambekov, E. (2013), *The Value of Investing in Enterprise Risk Management*, Journal of Accounting, Auditing & Finance 16(4): 641-658.
- [50] Modigliani, F. and Miller, M.H. (1959), *The Cost of Capital, Corporate Finance and the Theory of Investment*, American Economic Survey, 48, 261-297.
- [51] Moeller, R. R., (2007), *COSO Enterprise Risk Management – Understanding the New Integrated ERM Framework*, Wiley, Hoboken, NJ.
- [52] Mokoro J. M, Nyaoga R. B., Magutu P. O, Khoya O. M., Onsongo C.O (2010), *The Transition From Micro-Financing into Formal Banking among the Micro Finance Institutions in Kenya*, AIBUMA Publishing African Journal of Business & Management (AJBUMA)
- [53] Mozumdar, A., (2001), *Corporate Hedging and Speculative Incentives: Implications for Swap Market Default Risk*, Journal of Financial and Quantitative Analysis, 36(2), 221-250.
- [54] Mwangi, N. G., (2012), *The Effect of Credit Risk Management on The Financial Performance of Commercial Banks in Kenya*, Unpublished MBA Dissertation, University of Nairobi, Nairobi.
- [55] Namusonge, G. S. (2010), *The Role of Development Financial Institutions in the Aquisition of Technological Capabilities by Small and Medium Enterprises in Kenya*, ATPS Working Paper Series No. 41.
- [56] Nayak, K., and Mohanty, H., (2009), *The Importance of ICT Risk Management in Small to Medium- Sized Enterprises*, United Kingdom, Journal for Technology Engineering Sciences, 5(2), 33 – 47.
- [57] Ndung'u, N., (2013), *Effect of Financial Risk Management on Financial Performance of Oil Companies in Kenya*, Unpublished MBA Thesis, University of Nairobi.
- [58] Ngare, E. M., (2008), *A Survey of Credit Risk Management Practices By Commercial Banks in Kenya*, Unpublished MBA Project, University of Nairobi
- [59] Nguguna G. A., and Arunga, A., (2013), *Risk Management Practices: A Survey of Micro-Insurance Service Providers in Kenya*, International Journal of Financial Research, 4(1),
- [60] 132 – 150.
- [61] Njiru G.M. (2003) *Credit Risk Management by Coffee Co-operatives in Embu District*,
- [62] Unpublished MBA Project, University of Nairobi.
- [63] Njuguna, J., Gakure, R., Waititu, A., and Katuse, P., (2013), *Effects of financial risk management on the growth of microfinance sector in Kenya*, Prime Journal of Business Administration and Management (BAM), 3(6): 1064-1069,

- [64] Nocco, B. W. and Stulz, R. M., (2006), *Enterprise Risk Management: Theory and Practice*, Journal of Applied Corporate Finance, 18(4): 8-20.
- [65] Nyang'aya, R., (2012), *Enterprise Risk Management Survey Report: Where Do you stand?* Nairobi: Deloitte and Touche.
- [66] Odoyo, F. S., Omwomo, G. A., and Okinyi, N. O., (2014), *An Analysis of the Role of Internal Audit in Implementing Risk Management: A Study of State Corporations in Kenya*, International Journal of Business and Social Science, 5(6): 169 – 176.
- [67] Oketch, T. K., (1995), *Demand and Supply of Macro and Small Enterprise Finance in Kenya*: ODA Project.
- [68] Okochi, J., (2008), *Commodity Hedging: Best Practices for Modelling Commodity Exposures*, Journal of Corporate Treasury Management, 2(2): 42-46.
- [69] Olsson, R., (2008), *Risk Management in a Multi-Project Environment: An Approach to Manage Portfolio Risks*, International Journal of Quality & Reliability Management, 25 (1), 60–71.
- [70] Pagach, D. P. and Warr, R. S. (2007), *An Empirical Investigation of the Characteristics of Firms Adopting Enterprise Risk Management*, Econometrica, 5(2): 12 – 29.
- [71] Pagach, D. P. and Warr, R. S., (2008), *The Effects of Enterprise Risk Management on Firm Performance*, Journal of Finance, 52 (2), 737-783
- [72] PriceWaterHousecoopers (PWC) (2012), *Rising to the Next Flow. A Kenya Perspective on 2012 State of the Internal Audit Profession Study*, Nairobi: PWC Publication.
- [73] Riley, J., (2012), *Managing Risk: Contingency Planning*, Southern Economic Journal, 40 (3), 353-363.
- [74] Rudolph, H. P., (2009), *State Financial Institutions: Mandates, Governance and Beyond*, Policy Research Working Paper No 5141, The World Bank, Washington, DC.
- [75] Searle, I. (2008), *Enterprise Risk Management*, London: Spiramus Press.
- [76] Sharpe, W. F. (1964), *Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk*, The Journal of Finance, 19(3), 425-442.
- [77] Simiyu, R.S. (2008) *A Survey of Techniques of Credit Risk Management in Micro-Finance Institutions in Kenya*, Unpublished MBA Project, University of Nairobi.
- [78] Smyth, R., (2004), *Exploring the Usefulness of a Conceptual Framework as a Research Tool: A Researcher's Reflections*, Issues in Educational Research, 14(3): 22 – 41.
- [79] Stulz, R., (2003), *Rethinking Risk Management: The Revolution in Corporate Finance* (4 Edition), Blackwell Publishing: 367-384.
- [80] Tadesse, M., and Brans, M., (2012), *Risk Coping Mechanisms*, Journal of Economics & International Finance, 4(4), 79-91.
- [81] Tapiero, C. (2004), *Risk and Financial Management: Mathematical and Computational Methods*, John Wiley and Son.
- [82] Vicente-Lorente, J. D. (2001), *Specificity and Opacity as Resource-Based Determinants of Capital Structure: Evidence for Spanish Manufacturing Firms*, Strategic Management Journal, 22, 157-177.
- [83] Wamalwa, E., (2003), *Factors Influencing Investment Decisions in Parastatals in Kenya*, Unpublished Thesis, Kenyatta University, Kenya.
- [84] Wambugu, S. M. (2008), *A Survey of Credit Risk Management Practices By Micro-Finance Institutions In Kenya*, Unpublished MBA Project, University of Nairobi.
- [85] Wang, H., and Reuer, J. J. (2006), *Risk Reduction through Acquisitions: The Roles of Firm Specific Investments and Agency Hazards*, Advances in Mergers & Acquisitions, 5(2): 25-49.

- [86] Waweru, K., and Kisaka, H., (2012), *The Effect of Enterprise Risk Management Implementation on the Value of Companies Listed in the NSE*, AAA 2012 Management Accounting Paper
- [87] Wenk, D., (2005), *Risk Management and Business Continuity, Overview and Perspective*. Journal of the Chartered Insurance Institute, 3(3), 234-246
- [88] Weru, S.G. (2008), *An Assessment of Information Systems Risk Management Practices: A Case of Practical Action (International)*, Unpublished MBA Project, University of Nairobi.
- [89] Yakup, S. and Asli, T., (2010), *Financial Hedging Practices and Processes as a Part of Oil Refining Companies's Supply Chain*, Aalto University Apulensis Series Oeconomica 2, 663-671.
- [90] Yow, S., and Sherris, M., (2008), *Enterprise Risk Management, Insurer Value Maximization and Market Frictions*, Astin Bulletin, 38(1): 293-339.