EFFECT OF FINANCIAL RISKS ON CORPORATE VALUE IN MICROFINANCE BANKS IN KENYA: A SURVEY OF MICROFINANCE BANKS IN MOMBASA TOWN

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Abstract

Kenya has experienced difficult economic times forcing financial institutions to demand higher minimum operating balances for individual accounts to sustain their businesses. Therefore, this study examined the effect of financial risk on corporate value of microfinance banks in Kenya with focus on interest rate risk, credit risk, liquidity risks and capital management risks. The study adopted a descriptive research design and carried out a census of the four microfinance banks in Mombasa town an all the 73 employees in the four microfinance banks. The main research instrument for this study was a self-administered questionnaire. The data collected was analyzed using the descriptive statistics like the mean and standard deviation. In addition, the Product Moment Correlation Coefficient and the multiple linear regression with the help of the Statistical Package for Social Studies (SPSS) was used. The results found that there was a significant positive relationship between interest rate risk, credit risk, liquidity risk and corporate value of microfinance banks in Kenya. However, the results indicate that there was an insignificant positive relationship between capital management risk and corporate value of microfinance banks in Kenya. The study concluded that there is a significant and direct relationship between interest rate risk, credit risk, liquidity risk and corporate value of microfinance banks in Kenya. The study recommended that the management of microfinance banks should develop effective policies to mitigate interest rates fluctuations, credit risk and liquidity to reduce adverse effects on the corporate value of their institutions.

Keywords: *capital management risks, liquidity risks, credit risk, interest rate risk, microfinance, corporate value, Financial risks*

INTRODUCTION

Background of the Study

Financial risks arise from adverse changes over relatively shorter time horizons in interest rates, commodity prices, equity prices, and foreign currency values (Fatemi & Luft, 2002). Thus, financial risk is defined as the volatility or uncertainty of the future cash flows of a firm, or the probability of the occurrence of an adverse outcome. All organizations face financial risks, and their ability to achieve their objectives and in some cases even their survival depends on how well they manage those risks (Woods & Dowd, 2008). Corporate value is created through an organization's business model, which takes inputs from the capitals and transforms them through business activities and interactions to produce outputs and outcomes that, over the short, medium and long term, create or destroy value for the organization, its stakeholders, society and the environment (Ernst & Young, 2013). Corporate value is also created by organizations from a wide range of interactions, activities, relationships, causes and effects. Those interactions take place in the market, regulatory, societal and natural/environmental context within which the organization operates and on which it depends (Ernst & Young, 2013).

Financial risk generally results in a reduction of the volatility of corporate cash flows, which leads to a lower variance of firm value (Bartram, 2002). Corporate value is created only when a business unit or a company can earn a return on assets that exceeds its cost of capital; when return on assets falls short of the cost of capital, value is destroyed (Tseng & Goo, 2005). Value creation occurs when firm resources are combined in new ways to increase the potential productivity of those resources. As such, the finance theory suggests that risk management can increase the value of the firm by addressing the so-called corporate underinvestment problem (Ernst & Young, 2013).

According to the Microfinance Act (2008), Microfinance banks (MFBs) or Deposit Taking Microfinance Institutions (DTMs) are financial institutions that accept demand deposits and use the deposits as a means to generate capital for the extension of credit to customers. MFBs are not fully registered banks but are subject to prudential control of the Central Bank of Kenya like the other commercial banks, since they use customer deposits to raise capital for independent loans (Central Bank of Kenya, 2015). Microfinance is banking the unbankables, bringing credit, savings and other essential financial services within the reach of millions of people who are too poor to be served by regular banks (Idama, Asongo & Nyor, 2014). The need for microfinance in Kenya has been driven by a series of interrelated constraints on the development of a banking and finance sector. Microfinance banks (MFBs)in Mombasa and other parts of the Kenyan Coast play a role of providing different financial products and services to the people most especially the low-income earners who lack collateral to borrow from formal financial institutions like the commercial banks. Microfinance banks offer small amounts of loans mostly to business people who cannot afford collaterals to get loans from the main commercial banks (Idama, Asongo & Nyor, 2014). Microfinance institutions (MFIs) are often considered as either the saviors of the people with fewer financial capabilities. However, the microfinance industry globally is meeting difficulties as funding dries up, delinquencies rise and skeptics begin to question its efficacy in driving poverty reduction and development. Thus, the aim of this study, which seeks to investigate

the effect of financial risk on the corporate value of microfinance, banks in Kenya.

Statement of the Problem

Financial risks have been a challenge for as long as there have been markets and price fluctuations. Firms invest significant amount of money in implementing financial risk management programs (Sekerci, 2013). However, it is questionable if these programs do really pay off for them. In addition, financial risks are more challenging by the fact that many organizations face global markets of significant size, complexity of participants and transactions, different legal and regulatory systems, and myriad unknown factors (Horcher, 2005). Further, financial institutions nowadays offer highly structured products thus having access to a wide range of asset classes across the world and the complexity of these financial services and products highlights several types of risks (Alexander, 2005).

Microfinance banks as part of the Kenyan financial system play a vital role in driving economic growth and development (Kariuki, 2015). However, Kenya has experienced difficult economic times forcing financial institutions to demand higher minimum operating balances for individual accounts to sustain their businesses (Nthimba & Jagongo, 2015). Several financial institutions in Kenya mostly commercial banks have failed in the past or put under statutory management. The failures faced by the financial institutions in Kenya in recent years have been blurred largely on financial risks and poor financial risk management strategies (Angote, Malenya & Musiega, 2015). Thus, the need to investigate the effect of financial risk on corporate value of microfinance banks in Kenya.

A number of studies have explored the effects of financial risks on firms. Global studies by, Pérez-

Gonzalez and Yun (2011) established that that active financial risk management policies lead to an increase in firm value. Cupic (2015) also established that risk management contributes to an increase in corporate value. Obudho (2014) investigated the relationship between financial risk and financial performance of insurance companies in Kenya and found that an increase in financial risk leads to decrease in financial performance of insurance companies in Kenya. Muteti (2014) revealed that there was there was a negative relationship between credit risk, interest rate risk, foreign exchange risk, liquidity risk and financial performance of commercial banks in Kenya. However, most of the studies focus on financial risk management and its effect on financial performance. In addition, most of the studies focus on commercial banks and insurance firms with few examining financial risk and corporate value of microfinance banks. Thus, an empirical gap, which this study intends to investigate by examining: What is the effect of financial risks on corporate value of microfinance banks in Kenya?

Objectives of the Study

The main objective of this study was to examine effect of financial risks on corporate value of microfinance banks in Kenya with focus on microfinance banks in Mombasa Town.

Specific Objectives

The specific objectives of the study included

1. To explore the effect interest rate risk on corporate value of microfinance banks in Mombasa Town.

2. To investigate the effect credit risk on corporate value of microfinance banks in Mombasa Town.

3. To examine the effect liquidity risk on corporate value of microfinance banks in Mombasa Town.

4. To assess the effect of capital management risk on corporate value of microfinance banks in Mombasa Town

LITERATURE REVIEW

Theoretical Literature Review

A Game-Theoretical Approach to Group-Lending

Classical financial institutions typically require the existence of collateral as security before granting loans to a client. However, low income levels and the lack of assets would exclude most people in developing countries from obtaining credit from standard Banks. In contrast, micro finance institutions apply the concept of group-lending. Instead of requiring collateral from each individual, they use peer pressure and social selectivity to increase repayment rates and hedge against default risk. Several individuals are grouped, where each person receives a specific loan, but still the whole group is responsible for repaying credit.

As groups form voluntarily, no group is willing to accept a member whose reputation is questionable and who is likely to take too high risks in investing the loan and risks to be unable to repay by hindsight. In case of Grameen Bank, the sanction for default is lasting credit denial for all group members (Morduch, 2004) by this means, micro finance institution substitutes collateral with the mechanism of social reputation within a group.

This mitigates the risk of default due to adverse selection through asymmetric information in the detriment of the MFI. In addition, group-lending decreases transaction costs, another cause for standard banks to refrain from lending to the poor

(Sachs, 2005). At the same time, poor individuals are granted the possibility to access local financial markets and to invest in small businesses. The design of group-lending by Grameen Bank described above can be formalized by means of a game-theoretical approach. However, one or more group members may defect and use the loan to invest in too risky projects that bear higher profit but are also more likely to fail. In the latter case, I assume that the exclusion from further loans is the only sanction, but no repayment claims on the part of the MFI are made.

Theory of Loan Repayment

Microfinance organizations often use high frequency repayments. Borrowers are typically required to repay their loans in regular installments, beginning soon after the loan is given out. This aspect of the repayment schedule is usually explained as inducing 'fiscal discipline' among borrowers. Jain and Mansuri (2003) argue that an alternative rationale for this loan repayment structure lies in the difficulty of monitoring borrowers' actions. The potential for moral hazard Leads MFIs to use innovative mechanisms, such as regularly scheduled repayments, which indirectly co-opt the better-informed informal lenders. Conversely, this installment repayment structure allows informal lenders to survive. Further, they show that this linkage can not only expand the volume of informal lending, but may also raise the interest rate in the informal Sector. Fischer and Ghatak (2009) propose an alternative theory based on present-biased, quasi-hyperbolic preferences in order to capture the belief of many microfinance practitioners that clients benefit from the fiscal discipline required by a frequent repayment schedule. Their work is motivated by a pervasive sense among practitioners that frequent repayment is critical to achieving high repayment rates. The

model that captures this is stark in order to highlight one particular effect: if borrowers are present-biased, frequent repayment can increase the maximum loan size for which repayment is incentive-compatible. Intuitively, when borrowers are present-biased, the immediate gain to defaulting on any large repayment is subject to significant temptation. When these payments are spread out, the instantaneous repayment burden at any time is smaller and thus less subject to temptation. Frequent repayment also means that at the time of the first payment, the rewards (typically access to future credit) are further away from the repayment decision and thus more heavily discounted. Frequent repayment imposes an opportunity cost of meeting attendance on borrowers and direct costs on the lender. It might also distort the Investment incentives of borrowers toward projects that generate consistent, if manager returns. The optimal frequency balances these costs against the positive incentive effects.

Conceptual Framework

According to Kombo and Tromp (2009), the major aims of research should be either be to relate data to theory or to generate a theory from data. The conceptualization is based on the following independent variables; governance and internal controls, donor funding and loan portfolio, savings services and debt financing while the dependent variable is Sustainability of Micro Finance Institutions. Figure 2.1 graphically presents the conceptual framework.
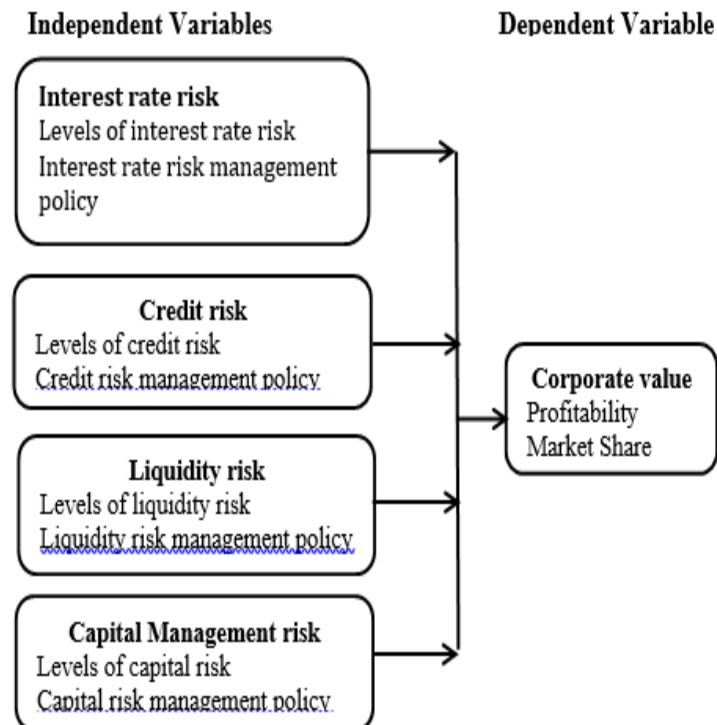

Figure 1: Conceptual Framework

Research Gaps

The reviewed literature indicates that the concept of financial risks has been widely studied. For instance global studies by Wani and Showket (2015) investigated the relationship between financial risk and financial performance of insurance companies in India but the study based on the insurance sector. Ekinci (2016) and Bhattarai (2016) also examined the effects of credit and market risk on bank performance. Kim (2015) investigated the relationships between liquidity risk, regulation, supervision and bank performance Tabari, Ahmadi and Emam (2013) examined the effect of liquidity risk on the performance of commercial banks. Kolapo and Fapetu (2015) examined the influence of interest rate risk on the performance of deposit money banks in Nigeria. However, the studies examined various financial risk on performance of commercial banks and not microfinance banks.

RESEARCH METHODOLOGY

The study population comprised of the four microfinance banks in Mombasa town and targeted all the employees of the four microfinance banks licensed and regulated by the Central Bank of Kenya in Mombasa Town as at 31 December 2016. The microfinance banks included Faulu Kenya, Kenya Women Finance Trust (KWFT), Rafiki Bank and the SMEP DTM. This study carried out a census of the employees of the four microfinance banks in Mombasa town. The main research instrument for this study was a self-administered questionnaire. To establish the reliability of the questionnaire the Cronbach Alpha Coefficient was used. Pre-testing was conducted to assist in determining the validity the accuracy, clarity and suitability of the research instrument. Sources of secondary included published annual reports, Central Bank of Kenya annual reports on the Microfinance sectors and other relevant published materials, were used to supplement primary data. The data collected was analyzed using the descriptive statistics and the Product Moment Correlation Coefficient and the multiple linear regression were used. Correlation analysis was used to establish the nature and the strength of the relationship between the research variable.

RESEARCH FINDINGS AND DISCUSSION

This chapter presents response rate, the reliability statistics and the respondent's profile. The chapter also presents the descriptive results on interest rate risk, credit risk, liquidity risk and capital management risks. Finally, the chapter presents the regression analysis results.

Interest Rate Risk

This sought to evaluate various statements on interest risk and its influence on corporate value. The results were as follows.

Table 1 Interest Rate Risk

Statement (n=51)	1 F (%)	2 F (%)	3 F (%)	4 F(%)	5 F(%)	Mean
Interest rate risk affects both borrowers and investors in the microfinance sector	19(37.3)	18(35.3)	10(19.6)	4(7.8)	0	1.98
A high level of interest rate risk weakens the performance of any microfinance institution	21(41.2)	30(58.8)	0	0	0	1.59
Changes in interest rates affects the underlying value of assets, liabilities and the future cash flows of a microfinance bank	19(37.3)	22(43.1)	6(11.8)	4(7.8)	0	1.90
Excessive interest rate fluctuations pose a significant threat to a microfinance bank earnings and capital base changes	22(43.1)	23(45.1)	6(11.8)	0	0	1.69
Higher interest rates reduce the present value of cash flows which reduces the attractiveness of an investments my microfinance banks	20(39.2)	31(60.8)	0	0	0	1.61

The results on table 1 shows that 37.3% of the respondents strongly agreed that interest rate risk affects both borrowers and investors in the microfinance sector while 58.8% agreed that a high level of interest rate risk weakens the performance of any microfinance institution with mean values of 1.98 and 1.59 respectively which corresponds to the scale value of 1 which indicates strongly agree. The results also show that 43.1% and 45.1% of the respondents agreed that changes in interest rates affects the underlying value of assets, liabilities and the future cash flows of a microfinance bank and that excessive interest rate fluctuations pose a significant threat to a microfinance bank earnings and capital base changes respectively. Finally, the results show that 60.8% of the respondents agreed that higher interest rates reduce the present value of cash flows, which reduces the attractiveness of an investments my microfinance banks. All the mean values correspond to the scale value of 1 which indicates strongly agree.

Credit Risk

This sought to evaluate various statements on credit risk and its influence on corporate value. Table 2 shows the obtained results.

Table 2 Credit Risk

Statement (n=51)	1 F (%)	2 F (%)	3 F (%)	4 F (%)	5 F(%)	Mean
Credit risk leads to loss of principal and interest which affects the microfinance banks performance	13(25.5)	24(47.1)	7(13.7)	7(13.7)	0	2.16
Credit risk causes disruption to cash flows and increases collection costs of microfinance banks	11(21.6)	28(54.9)	9(17.6)	3(5.9)	0	2.08
Higher level of non-performing loans grossly affect the performance of microfinance institutions	10(19.6)	32(62.7)	6(11.8)	3(5.9)	0	2.04
Improved credit risk management techniques help microfinance banks to achieve more profits	11(21.6)	26(51.0)	8(15.7)	6(11.8)	0	2.18
Credit risk increases the marginal cost loans leading to the increase of the cost of finance for a microfinance bank	12(23.5)	21(41.2)	8(15.7)	10(19.6)	0	2.31

Table 2 shows that 47.1% of the respondents agreed that credit risk leads to loss of principal and interest, which may affect the microfinance bank performance while 54.9% agreed that credit risk causes disruption to cash flows and increases collection costs of microfinance banks. The results also show that 62.7% and 51.0% of the respondents agreed that higher level of non-performing loans grossly affect the performance of microfinance institutions and improved credit risk management techniques help microfinance banks to achieve more profits. Further, the results show that 41.2% of the respondents agreed that credit risk increases the marginal cost loans leading to the increase of the cost of finance for a microfinance bank. All the mean values correspond to the scale value of 2 which indicates agreed.

Liquidity Risk

This sought to evaluate various statements on credit risk and its influence on corporate value. The results on table 3 shows that 37.3% and 43.1% of the respondents agreed that liquidity is crucial to the ongoing viability of any microfinance institution and that every financial transaction or commitment has implications for a microfinance bank's liquidity. The results also show that 39.2% and 43.1% of the respondents agree that liquidity shortfall at a single microfinance institution can have system wide negative repercussions and well-documented liquidity risk management policy is vital for any microfinance institution. Finally, the results show that 41.2% of the respondents agreed that the availability of liquidity influence profitability and enhances the capacity of the bank to fulfil present and essential needs. As such, all the mean values correspond to the scale value of 2 which indicates agreed.

Table 3 Liquidity Risk

Statement (n=51)	1 F (%)	2 F (%)	3 F (%)	4 F (%)	5 F (%)	Mean
Liquidity is crucial to the ongoing viability of any microfinance institution	15(29.4)	19(37.3)	10(19.6)	7(13.7)	0	2.18
Every financial transaction or commitment has implications for a microfinance bank's liquidity	13(25.5)	22(43.1)	5(9.8)	11(21.6)	0	2.27
Liquidity shortfall at a single microfinance institution can have system wide negative repercussions	11(21.6)	20(39.2)	11(21.6)	9(17.6)	0	2.35
Well-documented liquidity risk management policy is vital for any microfinance institution	9(17.6)	22(43.1)	10(19.6)	10(19.6)	0	2.341
The availability of liquidity influence profitability and enhances the capacity of the bank to fulfil present and essential needs	13(25.5)	21(41.2)	9(17.6)	7(13.7)	1(2.0)	2.25

REGRESSION ANALYSIS

Model Summary

Table 4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.730ᵃ	.533	.493	.41930

a. Predictors: (Constant), Capital management risk, Interest rate risk, Liquidity risk, Credit risk

The model summary results on table 4 shows that the R square value (coefficient of determination) is 0.533, which indicates that 53.3% of the variation in the dependent variable (corporate value) is explained by the independent variables (capital management risk, interest rate risk, liquidity risk, credit risk).

Analysis of Variance

Table 5 ANOVA

Model	Sum of Squares	do	Mean Square	F	Sig.
Regression	9.236	4	2.309	13.133	.000ᵇ
Residual	8.087	46	.176		
Total	17.323	50			

a. Dependent Variable: Corporate value
b. Predictors: (Constant), Capital management risk, Interest rate risk, Liquidity risk, Credit risk

The ANOVA results on table 5 shows that the regression equation is significant at 95% confidence level since the P value (0.00) is less than 0.05 (0.00<0.005). This is also indicates that the model is fit to predict the relationship between the dependent and the independent variables.

Coefficients

Table 6 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.217	.202		10.975	.000
Interest rate risk	.447	.083	.563	5.386	.000
Credit risk	.001	.000	.213	2.110	.040
Liquidity risk	.005	.002	.210	2.080	.043
Capital management risk	.009	.005	.177	1.754	.086

a. Dependent Variable: Corporate value

From the results on table 6, the resultant regression equation is as follows

$$Y = 2.217 + 0.447X_1 + 0.001X_2 + 0.005X_3 + 0.009X$$

The results indicate that there is a significant positive effect between interest rate risk, credit risk, liquidity risk and corporate value of microfinance banks in Kenya. However, the results indicate that there is an insignificant positive relationship between capital management risk and corporate value of microfinance banks in Kenya.

SUMMARY

The findings of the study revealed that interest rate risk affects both borrowers and investors in the microfinance sector and that high level of interest rate risk weakens the performance of any microfinance institution. The study also found that higher interest rates reduce the present value of cash flows, which reduces the attractiveness of investments microfinance banks. The regression analysis results found that there was a significant positive relationship between interest rate risk and corporate value of microfinance banks in Kenya. The findings of the study found that credit risk leads to loss of principal and interest, which affects the microfinance bank performance and that higher level of non-performing loans grossly affect the performance of microfinance

institutions. The study also revealed that improved credit risk management techniques help microfinance banks to achieve more profits. The study findings established that liquidity is crucial to the ongoing viability of any microfinance institution and that every financial transaction or commitment has implications for a microfinance bank's liquidity. The findings also established liquidity shortfall at a single microfinance institution can have system wide negative repercussions and well-documented liquidity risk management policy is vital for any microfinance institution.

Conclusion

The study found a significant positive effect between interest rate risk, credit risk, liquidity risk and corporate value of microfinance banks in Kenya. The study thus concludes that there is a significant and direct relationship between interest rate risk, credit risk, liquidity risk and corporate value of microfinance banks in Kenya. The study also found there is an insignificant positive relationship between capital management risk and corporate value of microfinance banks in Kenya. The study concludes that there is no significant relationship between capital management risk and corporate value of microfinance banks in Kenya.

Recommendations

The study found that interest rate risk has a significant positive effect on corporate value of microfinance banks in Kenya. The study therefore recommends that the management of microfinance banks should develop effective strategic plan to mitigate interest rates fluctuations to reduce adverse effects on the value of their institutions. The study found that credit risk positively and significantly affects the corporate value of microfinance banks in Kenya. The study thus recommends that microfinance banks should institute adequate credit analysis techniques to reduce non-performing loans and the overall credit risk facing the institution. The study found that liquidity risk significantly and positively affects the corporate value of microfinance banks in Kenya. The study recommends that microfinance banks managers should ensure they hold adequate cash levels to ensure that they meet the current obligations as and when they fall due in order to reduce liquidity risk levels. Finally, the study found an insignificant positive relationship between capital management risk and corporate value of microfinance banks in Kenya. However, the study recommends that microfinance banks should ensure that they have high capital levels to ensure that they can cover the difference between expected losses and worst-case losses.

REFERENCES

Akong'a, C. (2014). The Effect of Financial Risk Management on the Financial Performance of Commercial Banks in Kenya. *Unpublished MBA Project*. University of Nairobi.

Alexander, C. (2005). The Present and Future of Financial Risk Management. *Journal of Financial Econometrics,* 3(1), 3–25

Anguka W. O (2012). The Influence of Financial Risk Management on the Financial Performance of Commercial Banks in

Kenya; *Unpublished MBA Project.* University of Nairobi.

Cupic, M. (2015). Risk Management and Corporate Value. *Economic Horizons,* 17 (3), 215 – 228

Dondo, A. (2007). An Overview of the Microfinance Industry in Kenya. A Presentation to the UNEP Finance Initiative East African Roundtable on Sustainable Finance Opportunities and Challenges. 1st October, 2007, Nairobi

Ekinci, A. (2016). The Effect of Credit and Market Risk on Bank Performance: Evidence from Turkey. *International Journal of Economics and Financial Issues*, 6(2), 427-434.

Financial Sector Deepening (FSD) Kenya. (2014). Impact Assessment of Financial Market Development through the Lens of Complexity Theory. Financial Sector Deepening Kenya.

Githiomi, J. M. (2014). The Effects of Financial Risk Management Practices on Financial Performance of Oil Marketing Companies in Kenya. *Unpublished MBA Project.* University of Nairobi

Horcher, K. A. (2005). Essentials of Financial Risk Management. New Jersey. John Wiley & Sons, Inc.

Idama, A., Asongo A.I. & Nyor, N. (2014). Credit Risk Portfolio Management in Microfinance Banks: Conceptual and Practical Insights. *Universal Journal of Applied Science,* 2(6), 111-119

Obudho, A. R. (2014). The Relationship between Financial Risk and Financial Performance of Insurance Companies in Kenya. *Unpublished MBA Project.* University of Nairobi

Tabari, N. A., Ahmadi, M. & Emami, M. (2013). The Effect of Liquidity Risk on the Performance of Commercial Banks. *International Research Journal of Applied and Basic Sciences,* 4 (6), 1624-1631

Tseng, C. & Goo, Y. J. (2005). Intellectual capital and corporate value in an emerging economy: empirical study of Taiwanese manufacturers. *R&D Management,* 35, 187 – 201

Wani, A. A. & Showket, A. (2015). Relationship between Financial Risk and Financial Performance: An Insight of Indian Insurance Industry. *International Journal of Science and Research,* 4(11), 1424 – 1433

Wilson, J. (2010). Essentials of Business Research: A Guide to Doing Your Research Project. London. Sage Publications Ltd.

Woods, M. & Dowd, K. (2008). Financial Risk Management for Management Accountants. Management Accounting Guideline. The Society of Management Accountants of Canada