European Journal of Business and Social Sciences, Vol. 6, No. 07, **October 2017.** **P.P. 01 - 11**
URL: *http://www.ejbss.com/recent.aspx-/*
ISSN: 2235 -767X

EFFECT OF LIQUIDITY MANAGEMENT ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN RWANDA. A STUDY ON SELECTED BANKS IN RWANDA.

ELIJAH MUCHERU
Jomo Kenyatta University of Agriculture and Technology,
Kigali, Rwanda.

Dr. JAYA SHUKLA (PhD)
Jomo Kenyatta University of Agriculture and Technology,
Kigali, Rwanda.

Ms. JACKLINNE KIBACHIA
Jomo Kenyatta University of Agriculture and Technology,
Kigali, Rwanda.

ABSTRACT

Liquidity is a concept that many investors fail to consider or understand and as a result their financial plans fail to come through in such critical times. However, the fact is liquidity or a lack thereof causes more financial problems than almost any other aspect of finance. This study determined the effects of liquidity management on the performance of commercial banks. To achieve this the study was guided by the following specific objectives; to explore the effect of cash management to financial performance of commercial banks; to examine the effect of Loan Repayment on financial performance of commercial banks; to assess the effect of investment in non-core business on financial performance of the commercial banks; to establish effect of liquidity decisions on financial performance of commercial banks; to evaluate the effect of management competency on financial performance of commercial banks. Firm performance was measured using Return on Equity (ROE). This study adopted a descriptive research design in soliciting information on effects of liquidity management on financial performance of commercial banks. The target population was 14 commercial banks in Rwanda. The sampling technique employed was simple random sampling and the sample size was 42 respondents. Primary quantitative data was collected by use of self-administered structured questionnaires. The researcher also used secondary data derived from the audited financial statement of the commercial banks for the period 2014 to 2016. The data collected was analyzed, with respect to the study objectives, using both descriptive and inferential statistics. The data was analyzed using descriptive statistics such as mode, median, mean, standard deviation. Multiple regression analysis was employed to determine relationship between liquidity management and financial performance of commercial banks in Rwanda. Data was presented in tables, charts, figures and mathematical expressions. The findings revealed that holding Liquidity decisions, Cash management, Non-core investment, and Loan repayment.to a constant zero, financial performance would be at 0.347. A unit increase on Liquidity decisions would lead to increase in financial performance by a factor of 0.162, a unit increase in Cash management would lead to increase in financial performance by a factor of 0.282, a unit increase in Non-core investment would lead to increase in financial performance by a factor of 0.194 and unit increase in Loan repayment would lead to increase in financial performance by a factor of 0.211. The study concludes that liquidity risk management has a significant negative relationship with financial performance of commercial banks. The study also concludes that holding more liquid assets as compared to total assets will lead to lower returns to commercial banks in Rwanda but the effect of not significant at 5%. Holding more liquid assets as compared to total deposits will lead to lower returns to commercial banks in Rwanda and the effect is significant at 5%.

Key words: Liquidity decisions, Cash management, Non-core investment, and Loan repayment, financial performance.

1.1 Background

Globally, Liquidity management is inversely related to the performance of commercial banks (Bassey, 2015). A liquidity management crisis was evident in Global financial crisis of 2007–08 (Dullien, 2010). This was the worst financial crisis raising fundamental questions about liquidity management (Basel Committee on Banking Supervision, 2013). During the crisis, banks were hit hardest by liquidity management pressures cutting back sharply (Basel Committee on banking supervision, 2013). Major commercial banks like Lehman Brothers collapsed. Other banks were bailed out by the governments. The impact on the stock market was very severe as stocks shed prices (Basel Committee on Banking Supervision, 2013). In many areas, the economy faced a huge financial blow, resulting in house evictions, foreclosures and prolonged unemployment (Basel Committee on Banking Supervision, 2013). The crisis underscored the role of liquidity management to commercial banks (Basel Committee on Banking Supervision, 2013).

Financial crises from 2008-2010 is considered as a greatest financial crisis after the great depression 1930. The crises resulted in breakdown of world stock exchanges, banking sectors, housing sector and different businesses (Sulaiman et al., 2013). Business financing, especially at the wake of the global financial crisis, has become a major source of concern for business managers as bank loans are becoming too expensive to maintain as a result of tightening of both the local and international financial market and the reluctance of the public to invest in the share of company's sequel to the crash of the capital market (Bashir, 2006). These situations compel business managers to device various strategies of managing internally generated revenue to enhance their chances of making profit and meeting existing shareholders expectations.

Liquidity is a precondition to ensure that firms are able to meet its short-term obligations. The liquidity position in a company is measured based on the 'current ratio' and the 'quick ratio'. The current ratio establishes the relationship between current assets and current liabilities. Normally, a high current ratio is considered to be an indicator of the firm's ability to promptly meet its short-term liabilities (Berk, 2009). The quick ratio establishes a relationship between quick or liquid assets and current liabilities. An asset is liquid if it can be converted into cash immediately or reasonably soon without a loss of value. Low liquidity leads to the inability of a company to pay its creditors on time or honour its maturing obligations to suppliers of credit, services and goods. This could result in losses on account of non-availability of supplies and lead to possible insolvency. Also, the inability to meet the short-term liabilities could affect the company's operations and in many cases, it may affect its reputation as well (Chakraborty, 2008). Inadequate cash or liquid assets on hand may force a company to miss the incentives given by the suppliers of credit, services, and goods as well. Loss of such incentives may result in higher cost of goods which in turn affects the profitability of the business (Deloof, 2003). Every stakeholder has interest in the liquidity position of a company. Suppliers of goods will check the liquidity of the company before selling goods on credit. Employees should also be concerned about the company's liquidity to know whether the company can meet its employee related obligations, i.e., salary, pension, provident fund, etc. Thus, a company needs to maintain adequate liquidity (Farris, 2002).

In today's society, financial institutions hold a considerable market share, with the IMF estimates that across all banking sector assets in developing countries, the market share of co-operative finance was equivalent to 14 percent in 2004 (Hesse & Cihak, 2007). Previous research on financial institutions during crisis indicates that they tended to fare better than investor-owned savings and loans institutions, as they pursue more conservative investment policies (Chaddad & Cook, 2004). For instance, analysis from the IMF indicates that co-operative banks in developed countries tend to be more stable than commercial banks, especially during financial crisis, as their investment patterns tend to be less speculative and returns are therefore less volatile (Hesse & Cihak, 2007).

In a study carried out by Macaulay (2008) to investigate the effectiveness of liquidity management risk management best practices in the United States reported that over 70% of the financial institutions have adopted the best practices in the country. There has been an increased concern regarding effective credit risk management due to the fact that inadequate credit risk policies are the main source of vital problems in most of the financial institutions. An effective credit risk management policy must therefore aim at maximizing an institution's rate of return.

Konadu (2009) in a study in Ghana found no positive relationship between liquidity trend and profitability and concluded that there is a negative relationship between liquidity and profitability in the Ghana banking sector. Lamberg and Valming (2009) findings suggested that the adaptation of liquidity strategies do not have a significant impact on ROA. Only increased use of liquidity forecasting and short-term financing during financial crisis had a positive impact on ROA. Moreover, it was found that the importance of key ratios, which monitors company's liquidity have not changed between the studied time points. Li (2007) found that the result for liquidity on profitability is mixed and not significant, indicates that conclusion about the impact of liquidity remains questionable and further research is needed.

Lartey *et al*. (2013) found a weak positive relationship between the liquidity and the profitability of the listed banks in Ghana in their 2013 study. Olagunju *et al.* (2011) in their study in Nigeria concluded that for the success of operations and survival, commercial banks should not compromise efficient and effective liquidity management and that both illiquidity and excess liquidity are "financial diseases" that can easily erode the profit base of a bank as they affect bank's attempt to attain high profitability-level. A study in Canada by Graham and Bordeleau (2010) suggest that a nonlinear relationship exists, whereby profitability is improved for banks that hold some liquid assets, however, there is a point beyond which holding further liquid assets diminishes banks‟ profitability, all else equal. At the same time, estimation results provided some evidence that the relationship between liquid assets and profitability depends on the bank's business model and the risk of funding market difficulties. Adopting a more traditional (i.e., deposit and loan-based) business model allows bank to optimize profits with a lower level of liquid assets. Likewise, when the likelihood offending market difficulties is low (proxied by economic growth), banks need to hold less liquid assets to optimize profits.

According to National Bank of Rwanda (2014), most of Rwandan financial institutions had a cut dawn in the process of loan Granting in the last quarter of the year 2012 up to first quarter 2013 and this drastic downward trend is suspected to be associated with Inability to apply right credit risk Management techniques. The National Bank has adopted the Capital Adequacy, Asset Quality, Management Quality, Earnings and Liquidity (CAMEL) rating system in assessing the soundness of the commercial banks.

BNR report, 2016 indicates that the level of profitability and sustainability of the sector dropped significantly with ROE and ROA reported at merely 8% and 1% respectively. Banking is a risky business and liquidity risk has been identified as critical to ensure that the banks position remain intact amid the intense competition in the industry. Therefore, the purpose of this study was to establish the relationship between liquidity management and financial performance of Commercial Banks in Rwanda.

1.2 Statement of the Problem

Globally, commercial banks play a vital role in the economic resource allocation of countries. They channel funds from depositors to investors continuously. They can do so, if they generate necessary income to cover their operational cost they incur in the due course. Liquidity has significant effect on the financial performance of firms when there exists a mismatch between assets and liabilities. This may expose a financial institution to financial losses. This risk stems from the description of banking operations. It might affect the overall capital and earnings of the financial institution adversely. Financial institutions may face serious consequences if it is not properly managed. The banks and the regulatory authorities are becoming increasingly vigilant to the liquidity positions held by financial institutions (Muranaga and Ohsawa, 2002). The deposits are the lifeline of the banking business. Most of the banking operations are run through deposits. If the depositors start withdrawing their deposits from the bank, it will create a liquidity trap for the bank forcing the bank to borrow funds from the central bank or the inter□bank market at higher costs (Plochan, 2007)

Although liquidity is an important ingredient in the smooth working of business entities, it has not attracted much attention of scholars. Some worked by Johnson (2008) examined the differences in financial ratio averages between industries. Johnson (2008) extended this work by finding cross sectional stability of ratio groupings for both retailers and primary manufacturers. Maina (2011) studied this issue among oil companies in Kenya. The results showed that liquidity management has no effect on the firm's profitability. Moreover, Kweri (2011) examined the same problem among manufacturing firms. There is no study done so far on the effect of liquidity management on the performance of commercial banks in Rwanda. Therefore, this study aims at filling this gap by answering the following question: How does liquidity management affect the financial performance of commercial banks?

1.3 Objectives of the study

1.3.1 General objective

The general objective of the study was to determine the effect of liquidity management on financial performance of commercial banks in Rwanda.

1.3.2 Specific objectives

The study was guided by the following specific objectives:

1. To determine the effects of liquidity decisions on the financial performance of commercial banks in Rwanda
2. To establish the effects of cash management on financial performance of performance of commercial banks in Rwanda
3. To determine the effects of Non-Core Investment on the financial performance of commercial banks in Rwanda
4. To examine the effects of Loan Repayment on the financial performance of commercial banks in Rwanda

1.4 Research questions

The following research questions guided the study:

1. What are the effects of liquidity decisions on the financial performance of commercial banks in Rwanda?
2. How does cash management affect financial performance of performance of commercial banks in Rwanda?
3. Does Non-Core Investment affect the financial performance of commercial banks in Rwanda?
4. What are the effects of Loan Repayment on the financial performance of commercial banks in Rwanda?

2.0 Conceptual Framework

Conceptual framework is a schematic presentation which identifies the variables that when put together explains 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). In this study the dependent variable is Banks financial performance while the independent variables are financial disclosure, forward looking, general and strategic disclosures and social and board disclosure. The variables and their relationship are shown in the figure 1 below:

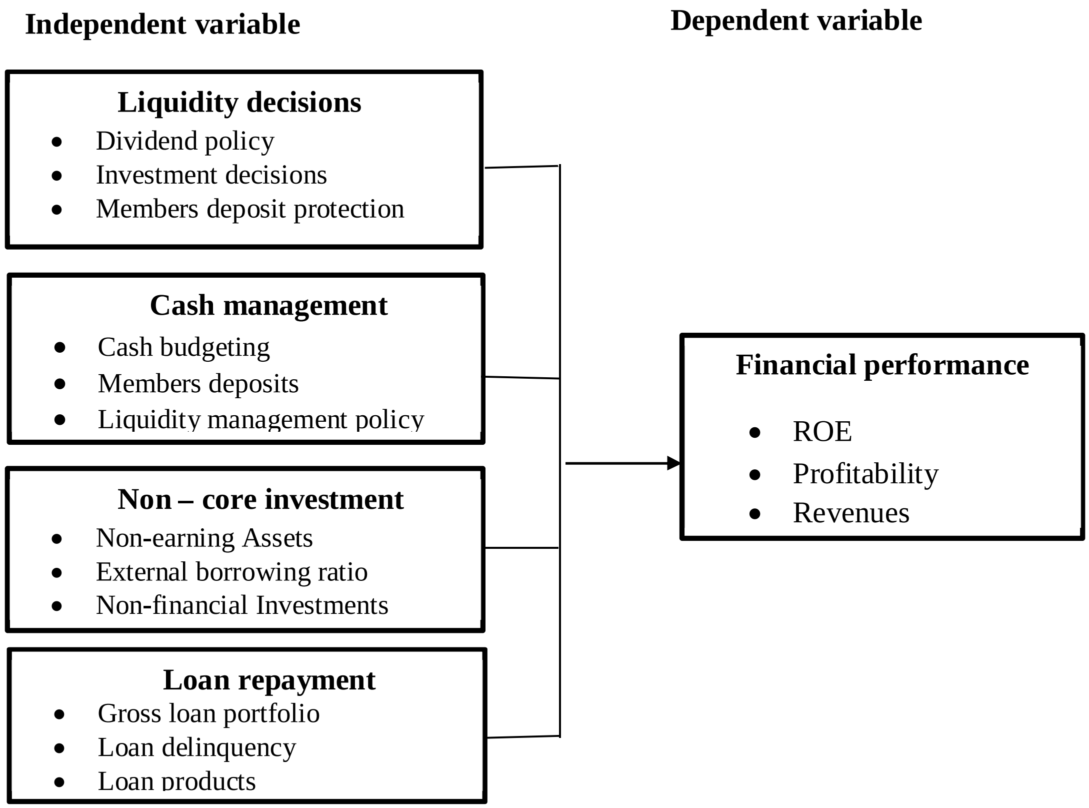

Figure 1: Conceptual framework

2.1 Critique of the existing literature

Research by (Clement & Martin, 2012) on the financial practice as a determinant of growth of commercial banks wealth, the researcher introduced the research very well and offered key definitions. The researcher clearly elaborated the statement of the problem and clearly showed the problem and how he intends to address the issue, the researcher showed the framework and the relationship between the dependent and independent variables very well, the author highlights the key challenges of commercial banks undergo and points out different researches that seem to support his work. The author puts correct research objectives and seems to do a very thorough introduction of the journal. The author has excellent citation related to commercial banks and their progress across a period of time and their growth and eminent challenges they had gone through. The author highlights the research design used and reason behind its usage. The author highlights the sampling and target population and the research instrument and finally comes up with the research model. This guides the research in the right direction to the final conclusion.

Research paper by (Nyabwaga, et al, 2012) on the effects of working capital management practices on financial performance: a study of small scale enterprises in Kisii south district, Kenya. The author summarizes the research on all section of the research paper. The flow of the abstract is very efficient highlighting the entire sector under investigation. The researcher seems to have done a thorough work on his paper by just reading through the abstract. The researcher introduces the research very well and offers key definition. The author highlights the key challenges SSEs undergo and points out different researches that seem to support his work. The author puts correct the research objectives and seems to do a very thorough introduction of the journal.

The author arranges the literature in a chronological order and highlights the key literature review relevant to SSEs cash management. The author cites three issues under the study and cites others in relation to efficient cash management in a business. The author finally introduces the conceptual framework showing the relationship between the dependent and independent model of the study. The author highlights the research design used and purpose of its usage. The author highlights the sampling and target population and the research instrument and finally comes up with the research model. This guides the research in the right direction to the conclusion.

3.0 Research design

This study adopted a descriptive survey. Descriptive survey research design is a scientific method which involved observing and describing the behavior of a subject without influencing it in any way (Coopers & Schindler, 2008). It is designed to gain more information about variables within a particular field of study. Its purpose is to provide a picture of a situation as it naturally happens (Burns & Grove, 2007). The objectives are stated clearly and a clear definition of the population is given. The instruments for data collection were tested for validity and reliability which is necessary for descriptive studies Zikmund, Babin, Carr & Griffin (2010)

3.3 Target population

The target population for this research comprised of 42 top managers from the fourteen commercial banks licensed by National Bank of Rwanda (BNR) as listed in appendix II. From each bank three top managers were selected. This is because they are the only people in the bank allowed to provide copies of the annual reports of their respective banks. These included the managing director, finance manager and operations manager. Therefore, the target population was 42 top managers.

4.0 Combined linear regression Model

Regression analysis was done to determine the relationship between liquidity management and financial performance

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.542[a]	.294	.268	.130

a. Predictors: (Constant), Liquidity decisions, Cash management, Non-core investment, and Loan repayment.

Table 2 shows that the coefficient of determination R square is 0.294 and R is 0.542 at 0.05 significant level. The coefficient of determination indicates that 29.4% of the variation in the dependent variable banks performance is explained by the independent variables (Liquidity decisions, Cash management, Non-core investment, and Loan repayment).

Table 3: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.575[a]	3	.192	11.388	.000[b]
	Residual	1.379	51	.017		
	Total	1.953	54			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Liquidity decisions, Cash management, Non-core investment, and Loan repayment.

Table 3 presents the results of Analysis of Variance (ANOVA) on voluntary disclosure versus banks performance. The ANOVA results for regression coefficient indicate that the significance of the F is 0.00 which is less than 0.05. This implies that there is a positive significant relationship between liquidity management and financial performance and that the model is a good fit for the data.

Table 4: Coefficient results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.347	.231		1.973	.106
	Liquidity decisions	.162	.009	.444	1.815	.009
	Cash management	.282	.050	1.231	3.616	.036
	Non -Core investment	.194	.017	1.075	3.159	.025
	Loan repayments	.211	.240	.230	.850	.028

From the data in the above table the established regression equation was

$$Y = 0.347 + 0.162\ X1 + 0.282\ X2 + 0.194\ X3 + 0.211\ X4$$

From the above regression equation, it was revealed that holding Liquidity decisions, Cash management, Non-core investment, and Loan repayment.to a constant zero, financial performance would be at 0.347. A unit increase on Liquidity decisions would lead to increase in financial performance by a factor of 0.162, a unit increase in Cash management would lead to increase in financial performance by a factor of 0.282, a unit increase in Non-core investment would lead to increase in financial performance by a factor of 0.194 and unit increase in Loan repayment would lead to increase in financial performance by a factor of 0.211.

5.1. Conclusions

5.1.1 Liquidity Decisions and Financial Performance

Effective liquidity management require well-regulated sector, since the liquidity and financial risk exposure is very high. There is need to revamp the role of the regulator especially creating its awareness levels since most of the members seemed not to understand the mandate of the regulator. The regulator is playing a very critical role and needed to be as strong as BNR to ensure that commercial banks are stronger in the financial sector. And since Commercial banks contribute highly on the performance of the Rwandan financial market, the awareness level of the regulator will play a great role in strengthening the contribution of Commercial banks to the economy of the country.

5.1.2 Cash Management and Financial Performance

Cash management is very critical as a liquidity management tool in Commercial banks. The researcher studied the following parameters namely: preparation of regular cash budget, cash flow forecast, occurrence of cash shortages and surplus. The researcher found that Commercial banks need to address the parameters critically to ensure that there is adequate cash management policy within the institutions to ensure optimal financial performance since they have a great role on the achievement of the Vision 2020 and the sector is a great contributor of the financial sector in the Rwandan economy. The management need to ensure there are adequate internal cash management controls to ensure that there is optimal cash, strategies are in place during minimal cash and surplus cash since either of the side will contribute to liquidity risks to the institution

5.1.3 Investment on Non-Core Activities and Financial Performance

Investment on non-core activities seemed not to interest most Commercial banks, this is because the industry is on the rise in the economy and the demands from members on loan obligation and issuance of bonus is very high. The core competency of Commercial banks is ensuring members can access credit facility and since the demand out slip supply most Commercial banks decided to focus on their core mandate. Hence for Commercial banks that feel they can increase the investment on Non-core activities need to ensure they do not affect the core mandate of the financial institutions.

5.1.4 Loan Repayment and Financial Performance

Loan repayment is the obligation of members to ensure that Commercial banks have adequate cash to meet new members loan obligations. The researcher noted there were huge credit risks encountered among different Commercial banks, hence the need for managements to ensure there are improved policies on credit terms and this will reduce liquidity risk and improve financial performance of the Commercial banks. With the Commercial banks regulator on board, there is need to introduce compliance of International Financial Reporting Standards (IFRS) to ensure that all Commercial banks have a standard way of reporting and it will be easier to monitor loan obligation among different Commercial banks since huge loans have a ripple effect on the performance of the economy in relation to inflation rate and gross domestic product of the country

5.2. Recommendations

The study shows a significant positive relationship between liquidity management and financial performance of commercial banks in Rwanda. It therefore means that management of commercial banks in Rwanda should take keen interest in how they manage this risk in order to maximize return to the shareholder which is one of the major objectives of their existence.

The study recommends prudent measures on liquidity management especially on liquidity ratios and cash flow forecast. The study also recommends establishment of dividend payment policy that reflect financial market dynamics and prudent investment policy of commercial banks funds, since some members experience delay in issuance of loans, there is need for policy adherence to CAMEL and PEARLS by commercial banks management. Also, the study recommends of policy development on member fund protection in relation to efficient market hypothesis and creation of robust financial market economy

The study recommends that management should put tighter internal controls system for cash management. Also, there was recommendation on commercial banks members to have a graduated increase on their deposit on annual basis to enhance cash flow for the better service of loan services. The study also recommends to the BNR regulator to introduce cash ratios to be deposited within the commercial banks. This will enable control of liquidity in the commercial banks and also help on overnight borrowing to assist the commercial banks assess the regulator during cash shortage and release cash surpluses when there is excess funds

The study recommends a key focus on commercial banks mandate on issuance of loans to be given a priority more than investment in non-core assets. Also since commercial banks lack investment expertise, there need to be a balance between risk management and liquidity management initiated by management of the commercial banks. The study recommends that BNR closely monitor liquidity ratios and investments risk ratios to ensure members can assess loans as and when required for national and personal development.

The study sought to examine the effect on loan repayment on financial performance of commercial banks in Rwanda. Management had taken precaution measures on management of gross loans; the study recommends standard provisions of loan loss as per international accounting standards across all the commercial banks to protect members deposit and build financial investment confidence in the sector. The study recommends introduction of other forms of loan guarantees for loan issuance since members‟ investments is on huge risk exposure when left only to members deposit guarantors.

5.3. Areas for further research

Further study in future can be done with emphasis on periods of economic shocks. The focus in this case should be how liquidity risk management impacts financial performance of commercial banks when it is not business as usual. For example, when the exchange rate depreciates rapidly, when interest rates increases or decreases at a steep rate or when there is economic recession or boom.

Further studies can also be done on the impact of liquidity risk management with focus on product mix of sources of funding and investments. The study in this case would seek to establish how the mix of funding determines the level of liquid assets required and ultimately the impact on performance. For example, a commercial bank with a large component of funding in call accounts vis a vis another that has a large component of funding in fixed accounts.

Finally, further studies can be done on the impact of endowment risk on financial performance of commercial banks and how this affect liquidity risk management decisions. Endowment risk would occur for example where the funding for some liquid assets such as treasury bills that have a fixed come from sources whose cost is flexible therefore a risk that in a rising interest regime a commercial bank would make losses from such liquid assets.

REFERENCES

1. Agbada, A.O.& Osuji, C.C. (2013). The Efficacy of Liquidity Management and Banking Performance in Nigeria. *International Review of Management and Business Research*, 2(1), 223-233.
2. Anyanwu, J. C. (1993). Monetary Economics: Theory, Policy and Institutions. Benin City. *Hybrid Professional Publishers Ltd*.
3. Athanasoglou, P. P., Brissimis, S. N. & Delis, M. D. (2007). Bank specific, industry specific and macroeconomic determinants of bank profitability. *Journal of International Financial Markets, Institutions and Money,* 18(2), 121-136.
4. Alfred, O. (2011). *Corporate Governance and Financial Performance of SACCOs in Lango Sub Region*. Unpublished Master's Thesis, Makerere University-Kampala.
5. Clement, O., & Martin, O. (2012) Financial Practice as a Determinant of Growth of Savings and Credit Co-Operative Societies Wealth. (A Pointer to Overcoming Poverty Challenges in Kenya and the Region). *International Journal of Business and Social Science, 24(3), 204-219*
6. Cohen, M., L. & Morrison, K. (2000). *Research methods in education*. (5th Ed.). London: Routledger falmer.
7. Darek, K., (2012). Liquidity gaps in financing the SME sector in an emerging market: evidence from Poland. *International Journal of Emerging Markets. 7(3), 335- 355.*
8. Erkki, K., (2004). *Cash Management Behavior of Firms and its Structural Change in an Emerging Money Market*. Oulu, Fin: University of Oulu Gliem A,
9. Gliem R (2003). *Calculating, interpreting, and reporting Cronbach's Alpha Reliability Coefficient for Likert-Type Scales*. A refereed paper presented at the \mid-West Research to Practice Conference, Ohio University, October 8-10,
10. Hannah, K., Gekara, M., & Joseph, M. (2013). Effect of operating costs on the financial performance of SACCOs in the banking sector in Kenya. *Prime Journal of Business Administration and Management. 4(2), 1359-1363,*
11. Huseyin, Y., (2011) another Perspective to Corporate Cash Management: A New Model And Definition. *International Journal of Humanities and Social Science.1 (11).*
12. ICA (International Co-operative Alliance) (1996). *Statement on the co-operative Identity*. Available from the University of Wisconsin Center for Co-operatives at
13. Jean-Laurent, V., (2008). Capital structure determinants: an empirical study of French companies in the wine industry. *International Journal of Wine. Business Research 20(2), 171-194*
14. Jin-Sun, K., Judy, K., & Lore. K, (2001). Moderating and Mediating Effects in Causal *Models, Issues in Mental Health Nursing, 22. 63–75.*
15. Kabamba, K., (2012). *Liquidity Management and Growth of Microfinance Institutions in Uganda (Case Study in Kibuku)*. Makerere University, Uganda.
16. Kifle, T., (2011) Management of Savings and Credit Cooperatives from the Perspective of Outreach and Sustainability: Evidence from Southern Tigrai of Ethiopia. *Research Journal of Finance and Accounting.2 (7/8), 2222-1697*
17. Kinyua, (2013). *Role of financial management practices in the performance of public service vehicle savings and credit co-operative societies in Kenya* (Published Master's Thesis) University of Nairobi.
18. Max, S., & David, B. (2012) New model rural cooperatives in Gansu: a case study. *Journal of Enterprising Communities:* People and Places in the Global Economy. 6(4), 325-338.

19. Mugenda, M. (2003), Research Methods, Qualitative and Quantitative/approaches, *African Centre for Technology Studies, Nairobi, Kenya*.
20. Mugenda, M., &Mugenda, G., A (2003). *Seminar Methods; Quantitative and Qualitative Approaches.* Laba Graphics Services
21. Muriithi, N. N. (2012). *Practices and financial performance of savings & credit cooperatives societies in Nairobi county-Kenya (Doctoral dissertation).* University of Nairobi.
22. Nyabwanga, R., Ojera. P., Alphonce. J., &Otieno. S., (2011) Effect of working capital management practices on financial performance: A study of small scale enterprises in Kisii South District, Kenya. *African Journal of Business Management 6(18), 5807-5817.*
23. Odhiambo, O. (2012). Corporate Governance Problems of Savings, Credit and Cooperative Societies. *International Journal of Academic Research in Business and Social Sciences.2 (11), 2222-6990.*
24. Odhiambo, J., (2013). *The relationship between working capital management and financial performance of deposit taking savings and credit co-operative societies licensed by SACCO societies regulatory authority in Nairobi county*. (Published Master's Thesis)
25. Orodho,J.A. (2004). *Techniques of writing research proposals and reports in education and social sciences, Nairobi*: Masola publishers.
26. Orodho A.J. & Kombo, D.K. (2002). *Research methods. Nairobi: Kenyatta University, Institute of Open Learning*. *Republic of Kenya (2008).* The SACCO Societies Act 2008, Nairobi, Government printers.
27. Sambasivam, Y., &Biruk, A. (2013). Financial Performance analysis of GOHE Cooperatives Savings and Credit Union in Bure Woreda, Ethiopia. *International journal research journal of economics and business studies. 02 (06).*
28. Sammy, A., Philemon. B., &Juma., (2013) Analysis of Financial Mismatch in CoOperative Societies: A Case of Kakamega County, Kenya. *International Journal for Management Science and Technology (IJMST). 1(5), 2321-0362. 135*
29. Simon, M. K. (2006). Dissertation and scholarly research: *A practical guide to start and complete your dissertation, thesis, or formal research project*. Dubuque, IA: Kendall/Hunt.
30. Wellington, J. (2000). *Educational research; Contemporary issues and practical approaches.* London: Continuum.
31. World Council of Credit Unions (WOCCU) (2009). *Statistical report, World Council of Credit Unions*, Washington D.C.