

# Influence of Liquidity Management Practices on Profitability of Deposit Taking SACCOs in Kakamega County

Pauline Tsindoli Mwash<sup>1</sup>, Dr. Julius Miroga<sup>2</sup>

<sup>1</sup>Master Student, Jomo Kenyatta University of Agriculture and Technology, Kenya

<sup>2</sup>Senior Lecturer: Department of Economics, Finance and Accounting,  
College of Human Resource Development, Jomo Kenyatta University of Agriculture and Technology, Kenya

---

**Abstract:** Liquidity management is among the four cardinal decision areas of financial management that requires careful handling and planning for a business enterprise to be successful and profitable. Saving and Credit Cooperative Societies face a risks arising from liquidity shortage and this has been a major cause of failure of many financial cooperatives. This study sought to examine the influence of liquidity management on profitability of deposit taking SACCO in Kakamega County. The specific objective was to determine the influence of liquidity decision practices on profitability of deposit taking SACCO in Kakamega County. The study adopted descriptive survey design. The study targeted 11 Deposit taking SACCOs in Kakamega County. Forty seven managers were sampled using census sampling technique. Primary data was collected using structured questionnaire. Validity was achieved through content validity while reliability was achieved through Cronbach alpha (0.841). Data was analyzed descriptively using frequencies, Mean, Standard deviation and percentage while Pearson Correlation Coefficient and simple linear regression with aid of SPSS version 22 generated inferential statistics. The data was presented in form of tables and regression models. The results revealed liquidity decision practices significant influence profitability of deposit taking SACCOs in Kakamega County. Liquidity management practices account for 66.3% significant variance in profitability (R square =.663, P=0.000). Therefore, the study concluded that liquidity decision practices have significant influence on the profitability of deposit taking SACCOs in Kakamega County. The study also recommended that SACCOs should acquire quality human resource so as to come up with sound liquidity decisions.

**Keywords:** Liquidity Decision, Liquidity Management Practices, Profitability, Deposit Taking SACCOs.

---

## I. INTRODUCTION

Liquidity management is a concept that is receiving serious attention all over the world especially with the current financial situations and the state of the world economy. According to Olagunju, Adeyanju and Olabode (2011), liquidity is the ability of the company to meet its short term obligations. It is the ability of the company to convert its assets into cash. The concern of business owners and managers all over the world is to devise a strategy of managing their day to day operations in order to meet their obligations as they fall due and increase profitability and shareholder's wealth. The liquidity of an asset means how quickly it can be transformed into cash. The importance of liquidity management is that it affects financial performance in today's and business cannot be over emphasis. The crucial part in managing working capital is required maintaining its liquidity in day-to-day operation to ensure its smooth running and meets its obligation. A firm should ensure that it does not suffer from lack-of or excess liquidity to meet its short-term compulsions. A study of liquidity is of major importance to both the internal and the external analysts because of its close relationship with day-to-day operations of a business. Dilemma in liquidity management is to achieve desired trade-off between liquidity and profitability (Bhunia, 2010).

Liquidity and its management determines to a great extent the growth and profitability of a firm (Obida & Owolabi, 2012). Liquidity management determines to a large extent the level of profit to be realized and improvement to shareholders wealth (Junaidu & Aminu, 2014). This is because, for a firm to survive in business it must remain liquid as failure to meet its obligation in due course may result to bad credit rating by the short term creditors; reduction in the value of goodwill in the market that may ultimately lead to liquidation (Bhunia, 2010). A good financial management policy should seek to maintain adequate liquidity in order to meet its short term maturing obligations without impairing profitability. Unfortunately, the principal focus of most organisations is profit maximization while the need to efficiently manage the liquid assets of the firm is ignored.

Agbada and Osuji (2013) indicated there is significant relationship between efficient liquidity management and banking performance and that efficient liquidity management enhance the soundness of banks in Nigeria. Botlhale and Muzindutsi (2016) showed that there is no long-run relationship between banks' profitability and liquidity and capital management of South African financial institutions. Taye (2014) found out that banks in Ethiopia are applying sound practices of liquidity management but there were some gaps on their effectiveness, there were poor management information system and effective stress testing of liquidity position in the banks. Sheikhdon and Kavale (2016) established that liquidity management drivers were found to significantly and positively influence financial performance of commercial banks in Mogadishu, Somalia.

Barus, Muturi and Kibati (2017) concluded that liquidity management influenced the financial performance of 83 savings and credit societies in Kenya. Njeru (2016) showed that even though SACCOS in Kenya undertake strict cash flow forecast, there are external variables that can affect liquidity management which poses a greater risk in the operations of the institutions. Song'e (2015) revealed that that financial performance as measured by profit before tax over total assets is positively related to liquidity of deposit taking SACCOs in Nairobi County. Majakusi (2016) showed that liquidity management explains 34% in the variability achieved financial returns. Nyaga (2014) showed that there exists a negative relationship between stock market return and liquidity management of commercial banks in Kenya.

Poor liquidity management has been blamed on the inability of financial institution to meet the short term demands of their customers in timely manner. The customers of the financial institutions include the depositors and the investors. Banks will create liabilities through savings from depositors and assets through giving loans to investors (Song'e, 2015). To satisfy depositor's claims, a SACCO must be able to convert its assets into cash quickly. But this is not all, if the depositor's claims are to be fully satisfied, the SACCO's assets must be converted into cash without loss. When SACCOs have said that they aim at liquidity, they have generally included both these attributes (Barus et al., 2017). With the savings and credit co-operatives increasingly becoming an important tool in economic development, the instability and inadequacy of services provided by them may compromise the quality of life and life span of average income groups in Kenya. Against the aforementioned background on influence of liquidity management practices on various industries, this study aims to investigate the effect of liquidity management practices under conceptualization of liquidity decision practices on the profitability of SACCOs in Kakamega County.

#### **A. Statement of the Problem**

SACCO Society Regulatory Authority (SASRA) has revoked the licences of more than five credit unions in the last three years, effectively barring them from taking deposits from the public due to serious liquidity problems. This follows that these SACCOs faced a risks arising from liquidity shortage and this has been a major cause of failure of many financial cooperatives in recent years. The regulator also noted that minimum liquidity ratio of 15% has been decreasing from 55.90% DTS down to 49.95% DTS. This has forced the regulator to seek advice on setting-up central liquidity facility as many SACCOs are unable to meet short-term obligations (SASRA, 2017). SACCOs don't have access to the lender of last resort, the Central Bank of Kenya. So in times of market difficulties and constrains they have nowhere to get the asset of cash. This makes them prone to the liquidity shortage, and no matter how small, can cause great damage to a savings institution (SASRA, 2016). Liquidity challenges and other management issues have hindered the growth of SACCO's where 2 out of 3 formed are not operational as Alfred (2011) found in his research. Alfred (2011) asserted that financial institution needs to hold liquid assets to meet the cash requirements of its customers. Inability to meet its customers' demands leaves financial institutions exposed to a run and more importantly a systemic lack of confidence (Song'e et al., 2016). Allen and Maghimbi (2009) have observed that there are challenges in managing liquidity in SACCOs thus many are unable to meet customers' needs. This has resulted to the high 51% failure rate of SACCOs in Kenya affecting more than half of population of Kenya (Waithera, 2015). While Literature is awash with studies linking liquidity and

performance, there still exist scanty studies available that has addressed this topic in SACCOS in Kakamega County. Therefore, this study will seek to determine the influence of liquidity decision practices on profitability of Deposit Taking SACCOs in Kakamega County.

### ***B. Research hypothesis***

Basing from the specific objective, the study sought to test the following null hypothesis;  $H_0$ : There is no significant influence of liquidity monitoring practices on profitability of Deposit Taking SACCOs in Kakamega County.

## **II. LITERATURE REVIEW**

### ***A. Liquidity Preference Theory***

Liquidity Preference Theory, also known as Liquidity Preference Hypothesis, was first expressed by John Maynard Keynes, and it is contained in 'The Collected Writings of John Maynard Keynes' (1989). This theory is based on the idea that investors demand a premium for securities with longer maturities, which entail greater risk, because they would prefer to hold cash, which entails less risk; hence, the more liquid an investment is, the easier it is to sell quickly for its full value (Wessels, 2000). The theory of liquidity preference is probably the single most controversial of the core constituents of The General Theory. Keynes presents liquidity preference theory there as a liquidity [preference] theory of interest," a theory that is supposed to fill the vacuum left by what he regarded as the flawed "classical [savings] theory of interest." In the early post-General Theory literature, the notion of liquidity preference quickly became a synonym for the demand for money. Together with a constant stock of money liquidity preference was the factor that determined the rate of interest in the money market of seminal ISLM model (Minsky, 1990). The novelty of Keynes's contribution was widely seen in the speculative motive for the demand of money only. And his revolutionary claim regarding the flawed classical theory of interest that needed replacement seemed ill-founded when Hicks (1939) declared that liquidity preference and classical (loanable funds) theories were equivalent (Bibow, 2005).

As regards liquidity preference, Friedman thought that Keynes's liquidity trap concerns were of little practical relevance. Especially with a steady growth in the money stock, the money demand function would be sufficiently stable to allow self-adjusting market forces staying on target. According to his vision there should be no interest-rate manipulations by central bankers no interest rate policies as the markets, merely anchored by steady base growth but not otherwise under any policy guidance, would grind out whatever productivity and thrift may require at any time (Keynes, 2016). Financial institutions are pictured as actively managing their balance sheets. In deciding about the form of their lending, or the division of their resources in different forms of investment available to them, they balance profitability considerations as against liquidity [i.e. market risk] considerations. In an uncertain world, moreover, this balancing job represents a "never-ceasing problem, since the strength of various considerations is continuously varying over time with changing circumstances

Keynes also offered some explanations for these fluctuations in banks' portfolio proportions. In particular, these fluctuations may be due to variations in the banks' customers' demand for advances. But notice that he viewed banks as applying judgement to the issue of whether or not to accommodate their customers' changing requirements (Keynes, 2016). Distinguishing between trade customers and "speculative movement[s]," he pointed out that banks' judgement appears to concern both microeconomic and macroeconomic issues, and that banks' own liquidity preference may change too. Most importantly, notice that even to the extent that banks accommodate the variations in their customers' demand for advances, this would at best make one component of their overall balance sheet endogenous. For in Keynes's view banks would try to compensate such endogenous variations in their loan business by employing their resources in alternative directions. According to the theory, financial institutions are pictured as actively managing their balance sheets. In deciding about the form of their lending, or the division of their resources in different forms of investment available to them, they balance profitability considerations as against liquidity considerations.

### ***B. Liquidity Decision Practices***

Efficient management of liquidity is thus one of the most important decisions regarding current operations of any company. In many companies, the amount of working capital invested in current assets may be significantly high as a proportion to total capital employed. It is important that these funds are used in an efficient way and there is no excess of working capital indicating the presence of idle funds without any return which ultimately leads to the low rate of return of capital employed. This consequently affects the profitability of the company. That means that idle working capital

imposes opportunity costs on the firm which results in the reduction of its profitability margin and finally also of its value. This implies that both insufficient as well as excessive amount of working capital are adverse for the company and its liquidity and profitability. The appropriate evaluation of working capital and identification of its basic elements can help managers decide over the company's operations more efficiently and enable them to manage working capital effectively in a way that balances liquidity and profitability. This would affect the level of investment in current assets as well as the appropriate sources of their financing (Atseye, Ugwu & Takon, 2014).

According to (FSD, 2009) SACCOs should limit their investment on non-productive assets such as land, buildings, vehicles, furniture and cash, to a maximum of 5% of the total assets and thereby invest 95% of their funds into those assets that earn a return greater than the cost of funds and operating costs. More so, prudent funds allocation strategy is an important financial practice function in any SACCO society. This aspect usually involves decisions to commit the SACCOs funds to planned investment options. SACCOs need to make decisions to invest their funds more efficiently in anticipation of expected flow of benefits in the long run. Jared (2013) asserts that as SACCO societies grow and become regulated, the need to build capital reserves becomes a requirement not only from the regulatory authorities but as the most cost-effective financing option for new products, services, marketing and branch network expansion (WOCCU) & FSD Kenya, (2010). The NCUA's CAMEL (Capital adequacy, Asset quality, Management, Earnings and Asset/Liability management) rating system, (NCUA, 1994), provides that capital reserves serve to support growth as a free source of funds. Capital reserves represent not only as a cushion for uncertainties such as asset losses and adverse economic cycles, but it also provides resources for long-term investments and funding for provision of more services to members (WOCCU & FSD Kenya, 2010).

Clement (2012) asserts that financial stewardship being the routine financial decision-making of SACCOs, should embrace sound business practices. This should also revolve around the SACCOs financial discipline with a profound influence on the success of all businesses conducted by the SACCOs (Mudibo, 2005). More so, prudent funds allocation strategy is an important financial practice function in any SACCO society. This aspect usually involves decisions to commit the SACCOs funds to planned investment options. SACCOs need to make decisions to invest their funds more efficiently in anticipation of expected flow of benefits in the long run. Such investment decisions generally include expansion, acquisition, modernization and replacement of long-term assets (Maina, 2007). Thus, the SACCOs value is deemed to increase where the investments are profitable and add to the wealth in the long run. This situation is obtained where a SACCO involves itself with investments that yield benefits greater than the opportunity cost of capital.

### ***C. Profitability***

Profitability is the ability for an organization to make profit from its activities. Agha (2014) defines profitability as the ability of a company to earn profit. Profit is determined by deducting expenses from the revenue incurred in generating that revenue. Profitability is therefore measured by incomes and expenses. Income is the revenues generated from activities of a business enterprise. The higher the profit figure the better it seen as the business is earning more money on capital invested. For a manufacturing firm, revenues are generated from sales of products produced. Expenses are the costs of the resources used up and consumed in the manufacturing process together with other selling and administrative expenses. Drucker (2012) asserts that for a business enterprise to continue running, it must make profits.

However, a business cannot shut down its doors simply because it has made a loss in a single financial year but when the firm makes losses continuously in consecutive years this jeopardizes the viability of that business (Dunn, 2009). The amount of profit can be a good measure of performance of a company. So profit is used as a measure of financial performance of a company as well as a promise for the company to remain a going concern in the world of business (Agha, 2014). The profitability position of a firm can be analysed using return on assets (ROA). Return on assets indicates how profitable a business is relative to its assets and gives how well the business is able to use its assets to generate earnings calculated. Nyabwanga, Ojera, Otieno and Nyakundi (2013) assert that return on assets must be positive and the standard figure for return on assets is 10% - 12%. The higher the ROA the better because the business is earning more money on the capital invested.

Working capital management plays an important role in improving profitability of firms. Firms can achieve optimal management of working capital by making trade-off between profitability and liquidity (Makori & Jagongo, 2013). There is always a trade-off between liquidity and profitability. When one gains, the other one ordinarily means giving up some of the other (Saleem & Rehman, 2011). Proper working capital management ensures that the company increases its

profitability. Effective working capital management is very important due to its significant effect on profitability of company and thus the existence of a company in the market (Agha, 2014).

### III. METHODOLOGY

This study adopted descriptive survey research design. The population of this study comprised of all 46 SACCOs in Kakamega County. However, the study targeted 11 deposit taking SACCOs which take deposits from their members. These 11 SACCOs have a total population 47 employees holding various managerial positions. The sampling frame in this study was derived from Audit & Risk Managers, Finance managers, Credit managers, FOSA managers and Accountants. The study used census sampling technique to select 47 respondents comprising of 6 Audit & Risk Managers, 11 Finance managers, 11 Credit managers, 11 FOSA managers and 11 Accountants from the 7 SACCOs that are allowed by SASRA to take deposits from their clients. The study used primary data collection instruments. A total of 47 questionnaires were administered to the sample population and 43 were returned having been successfully filled thus giving a response rate of 91.5%. The research adopted the content validity to measure the validity of the instruments. Cronbach's alpha was computed using data from the pilot study to determine the internal consistency of the research instruments. The results yield an alpha of 0.841 which was reliable as it was greater than 0.7. Data was summarized, edited and coded. Both descriptive and inferential statistics were used to analyse the data collected. The researcher used descriptive statistics that included measure of central tendency; mean and standard deviation. Inferential statistics was used to determine the relationship between independent and dependent variables. This involved Pearson correlation and multiple linear regression analysis at significance level of 0.05. This was done using SPSS software version 22.

### IV. FINDINGS AND DISCUSSIONS

#### A. Descriptive Statistics

The study sought to find out liquidity decision practices by asking the sample respondents to indicate their level of agreement on five statements related to liquidity decision practices. The statements were anchored on a five point Likert-type scale ranging from 5=Strongly Agree, 4=Agree, 3=Undecided, 2=disagree to 1= Strongly Disagree. Table 1 summarizes relevant results.

**Table 1: Descriptive Statistics for Liquidity Decision Practices**

Liquidity Decision		1	2	3	4	5	Mean	STDV
Liquidity decision involves identification of existing sources of liquidity risk as well as liquidity risk that may arise from new business products or activities	f	1	4	4	23	11	3.91	0.97
	%	2.3	9.3	9.3	53.5	25.6		
Liquidity decision involves SACCO's actions in case of temporary or long-term liquidity disturbances.	f	0	2	4	26	11	4.07	0.74
	%	0.0	4.7	9.3	60.5	25.6		
Protection of members deposit by SACCO management always takes precedence during liquidity decisions	f	0	5	3	24	11	3.95	0.90
	%	0.0	11.6	7.0	55.8	25.6		
Liquidity decision involves analysing the data on the level and trends of cash inflows in the previous period, taking into account seasonal effects, sensitivity of interest rates and macroeconomic factors.	f	0	2	4	27	10	4.05	0.72
	%	0.0	4.7	9.3	62.8	23.3		
Reports are regularly provided and reviewed by experts to determine necessary information for liquidity decision	f	2	1	7	33	0	3.65	0.75
	%	4.7	2.3	16.3	76.7	0.0		

From Table 1, majority of the respondents confirmed that Liquidity decision involves identification of existing sources of liquidity risk as well as liquidity risk that may arise from new business products or activities of which 53.5% (23) agree and 25.6% (11) strongly agree to it. A mean of 3.91 and standard deviation of 0.97 implies that there is great deviation from the mean. The results also revealed that 60.5% (26) and 25.6% (11) of the respondents agreed and strongly agreed respectively that Liquidity decision involves SACCO's actions in case of temporary or long-term liquidity disturbances. A mean of 4.07 and standard deviation of 0.74 implies that there is some deviation from mean. In terms of protection of members' deposit, 60.5% (26) and 25.6% (11) of the respondents agree and strongly agree respectively that protection of members deposit by SACCO management always takes precedence during liquidity decisions. A mean of 3.95 and standard deviation of 0.90 suggests that there is great deviation from mean. It was also found that majority of the

respondents agreed that Liquidity decision involves analysing the data on the level and trends of cash inflows in the previous period, taking into account seasonal effects, sensitivity of interest rates and macroeconomic factors as shown by 62.8% (27) of the respondents. Lastly, 76.7% of the respondents agreed that reports are regularly provided and reviewed by experts to determine if internal management reports provide the necessary information for informed liquidity decisions.

**B. Pearson correlation**

Bivariate Pearson correlation analysis was undertaken to investigate the relationship between liquidity decision practices and the profitability of Deposit Taking SACCOs in Kakamega County. The results are as shown in Table 2.

**Table 2: Correlation between Liquidity decision and profitability**

	Statistics
Pearson Correlation	.489**
Sig. (2-tailed)	.006
N	43

In determining the influence of liquidity decision practices on the profitability, the study established a coefficient of correlation (r) as 0.489\*\*, P<0.01 at 99.0% confidence level. This shows that there exist a significant positive relationship between liquidity decision practices and the profitability. This suggests that the profitability of DTS increase with an increase in liquidity decision practices and a decrease in liquidity decision practices of DTS leads to a decrease in their profitability.

**C. Simple Linear Regression**

Simple linear regression analysis was used to determine changes in profitability that is been explained by liquidity decision practices. Findings were as shown in Table 3 which contains model summary, ANOVA and Coefficient.

**Table 3: Regression results for Liquidity decision and profitability**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.489 <sup>a</sup>	.239	.220	.42280		
a. Predictors: (Constant), Liquidity decision Practices						
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.302	1	2.302	12.880	.001 <sup>b</sup>
	Residual	7.329	41	.179		
	Total	9.632	42			
a. Dependent Variable: Profitability						
b. Predictors: (Constant), Liquidity decision Practices						
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.577	.289		8.928	.000
	Liquidity decision	.424	.118	.489	3.589	.001
a. Dependent Variable: Profitability						

From Table 3, R=0.489 implies that there is relationship between liquidity decision practices and profitability of DTS. The results revealed a coefficient of determination (r<sup>2</sup>) of 0.239. This implies liquidity decision practices can explain 23.9 % of the variance in profitability of SACCOs in Kakamega County. The adjusted r square attempts to produce a more honest value to estimate r square for the population. The F test gave a value of (1, 42) = 12.880, P<0.01, which was large enough to support the goodness of fit of the model in explaining the variation in the dependent variable. It postulated that liquidity decision practices are a useful predictor of profitability.

The regression coefficients in Table 3 show that liquidity decision practices had a statistically significantly unique contribution in the prediction of the profitability of DTS in Kakamega County. Therefore, we reject null hypothesis and conclude that liquidity decision practices have a significant influence on the profitability of DTS in Kakamega County. Further, the liquidity decision practice had a positive beta coefficient = 0.424 an indication that a one unit change in the liquidity decision practices is likely to lead to a change in the profitability of DTS in Kakamega by 0.424 in the same direction. The model for this objective is as follows.

#### **Y=2.577+0.424 Liquidity Decision Practices**

Hence, the study concluded at 5% significance level that liquidity decision practices has a significant positive influence on the profitability of DTS in Kakamega County, such that the more DTS practice liquidity decision the more their profitability would increase. The practices of liquidity decision is important since it considers analysing the data on the level and trends of cash inflows in the previous period, taking into account seasonal effects, sensitivity of interest rates and macroeconomic factors. The most notable practices are decision involving investment of surplus liquidity and the need to protect member deposits. If these liquidity decision practices are put into consideration, profitability of the DTS would increase significantly.

These findings agree with Mucheru, Shukla and Kibachia (2017) in Rwanda who found out that a unit increase on Liquidity decisions would lead to increase in financial performance by a factor of 0.162. The concluded 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%. The study also agrees with Njeru (2016) who found out that liquidity decisions were statistically significant in explaining Financial Performance of Deposit taking SACCOs in Kenya. Kahyani, Pooya and Moravej (2016) also found that liquidity decision has signification effect on the profitability of firms listed in Tehran Stock Exchange in Iran. Firms with better liquidity decision practices have seen increase in investments.

## **V. CONCLUSION AND RECOMMENDATION**

The study revealed that most deposit taking SACCOs undertook liquidity decision which involves action for short term (temporary) and long term liquidity disturbances. This involves analysing data on the trend and level of cash inflows, sensitivity of interest, macro-economic effects and seasonal effects. During liquidity decision, member deposit protections always take precedence through identification of existing sources of liquidity risk. These practices were found to influence profitability of deposit taking SACCOs positively and significantly. The null hypothesis was rejected since there is significant influence of liquidity decision practices on profitability of Deposit Taking SACCOs in Kakamega County. This was arrived after comparing these value P-value ( $P < 0.05$ ) and beta value ( $\beta \neq 0$ ). The study recommends prudent measures on liquidity decision practices 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 SACCO funds, since some members experience delay in issuance of loans, there is need for policy adherence to CAMEL and PEARLS by SACCO management. There is also need to encourage registering of SACCOs on the Security Exchange to better increase financial management and efficient investment decisions especially on excess cash.

## **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] Agha, H. (2014). Impact of working capital management on Profitability. *European Scientific Journal, ESJ*, 10(1).
- [3] Alfred, O. (2011). Corporate Governance and Financial Performance of SACCOs in Lango Sub Region, *Master's Thesis, Makerere University*.
- [4] Allen, E., & Maghimbi, S. (2009). *African cooperatives and the financial crisis*. Geneva: ILO.
- [5] Atseye, F. A., Ugwu, J. I., & Takon, S. M. (2015). Determinants of working capital management. *International Journal of Economics, Commerce and Management*, 3(2), 1-11.
- [6] Barus, J. J., Muturi, W., Kibati, P., & Koima, J. (2017). Effect of Management Efficiency on Financial Performance of Savings and Credit Societies in Kenya. *Journal of Strategic Management*, 2(1), 92-104.
- [7] Bhunia, A. (2010). A Study of Managing Liquidity. *Journal of Management Research*, 3(2), 1-22

- [8] Bibow, J. (2005). Germany in crisis: the unification challenge, macroeconomic policy shocks and traditions, and EMU. *International Review of Applied Economics*, 19(1), 29-50.
- [9] Botlhale, M., & Muzindutsi, P. F. (2016). Effect of Capital and Liquidity management on Profitability of Major South African Banks. In *Proceedings of the 28th Conference of the South African Institute of Management Scientists*.
- [10] 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
- [11] Drucker, P. (2012). *Management challenges for the 21st century*. Routledge.
- [12] Dunn, M. (2009). "Why you need a credit policy". Retrieved July 13, 2013. From <http://www.entrepreneur.com/>
- [13] Junaidu E., & Aminu, M. (2014). Public Service in Nigeria-An Overview of Functions and Code of Conduct. *Global Journal of Politics and Law Research*, 3(1), 61-69.
- [14] Kahyani, S., Pooya, M. R. K., & Moravej, K. Z. The effect of stock price volatility on the stock liquidity (Empirical evidence: Tehran Stock Exchange). *International Research Journal of Finance and Economics* 49(1), 62-71
- [15] Keynes, J. (2016). *Essays in persuasion*. Springer.
- [16] Maina, D. T., (2007). *Corporate Finance*. Nairobi: Regional Institute of Cooperatives development and Management.
- [17] Majakusi, J. (2016). *Effect of Liquidity Management on the Financial Performance of Commercial Banks in Kenya*, (Unpublished MBA project), University of Nairobi, Kenya
- [18] Makori, D. M., & Jagongo, A. (2013). Working capital management and firm profitability: Empirical evidence from manufacturing and construction firms listed on Nairobi securities exchange, Kenya. *International Journal of Accounting and Taxation*, 1(1), 1-14
- [19] Minsky, H. P. (1990). Schumpeter: finance and evolution. *Evolving technology and market structure: Studies in Schumpeterian economics*, 51-73.
- [20] Mucheru, E., Shukla, J., & Kibachia, J. (2017). Effect of Liquidity Management on Financial Performance of Commercial Banks In Rwanda. A Study on Selected Banks in Rwanda. *European Journal of Business and Social Sciences* 6(7), 1-11
- [21] Mudibo, E. K. (2005, November). Corporate Governance in Co-operatives the East African Experience. In *Conf. Pan-African Consultative Forum on Corporate Governance*.
- [22] Njeru (2016). *Effect of liquidity management on financial performance of deposit taking saving and credit co-operative society in Kenya*. PhD Thesis, Jomo Kenyatta University of Agriculture and Technology
- [23] Nyabwanga, R. N., Ojera, P., Otieno, S. & Nyakundi, F. N. (2013). An Empirical Analysis of the Liquidity, Solvency and Financial Health of Small and Medium Sized Enterprises in Kisii Municipality, Kenya. *European Journal of Business and Management*, 5(8), 1- 4.
- [24] Nyagah, B. K. (2014). The Effect of Enterprise Risk Management on Financial Performance of Pension Fund Management Firms in Kenya. *Unpublished Master of Arts Thesis: University of Nairobi*.
- [25] Olagunju, A., David, A. O., & Samuel, O. O. (2012). Liquidity management and commercial banks' profitability in Nigeria. *Research Journal of Finance and Accounting*, 2(7-8), 24-38.
- [26] Owolabi, S. A., & Obida, S. S. (2012). Liquidity management and corporate profitability: Case study of selected manufacturing companies listed on the Nigerian stock exchange. *Business Management Dynamics*, 2(2), 10-25.
- [27] Saleem, Q. & Rehman, R.U. (2011). Impacts of liquidity ratios on profitability: case of oil and gas companies of Pakistan. *Interdisciplinary Journal of Research in Business* (7), 95-98
- [28] Sheikhdon, A. A. (2016). Effect of Liquidity Management On Financial Performance Of Commercial Banks In Mogadishu, Somalia. *International Journal for Research in Business, Management and Accounting*, 2(5), 101-123.



- [29] Song'e, H. K. (2015). The Effect of Liquidity Management on the Financial Performance of Deposit Taking SACCOs in Nairobi County. *Unpublished MBA Project*, University of Nairobi, Kenya.
- [30] Taye, H. (2014). *Analysis On Liquidity Management Practices Of Five Private Commercial Banks In Ethiopia* (Doctoral dissertation, St. Mary's University).
- [31] Waithera, I. W. (2303). *Strategic management practices and organizational culture at the family bank limited Kenya* (doctoral dissertation, school of business, university of Nairobi).
- [32] Wessels, W. N. (2000). *Modern portfolio theory and investment analysis*. John Wiley & Sons.
- [33] WOCCU and FSD Kenya (2008),. Institutional Capital as a Bulwork for a Rainy Day. SACCO CAP new, Newsletter of WOCCU/ FSD SACCO CAP project.