

**INFLUENCE OF WORKING CAPITAL MANAGEMENT
TECHNIQUES ON FINANCIAL PERFORMANCE
OF DEPOSIT TAKING INSTITUTIONS
A SURVEY OF SACCOs IN KISII COUNTY, KENYA**

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Abstract

Deposit taking institutions play a crucial role in the economy. Despite, most of them have had difficulties in their operations leading to slow growth in profitability and some going under, probably due to weak working capital management practices. Purpose of this study was to investigate influence of working capital management techniques (management of accounts receivables, inventories and accounts payables) on financial performance of deposit taking institutions. Descriptive design was used to examine the three savings and credit cooperative societies licensed by SACCO societies' regulatory authority of Kenya with target population being 45 respondents. Census technique was used. Primary data was collected using a structured questionnaire and secondary data obtained from audited financial statements which was then analyzed using descriptive statistics. From the findings, study established that management of accounts receivables reduces the amount of cash that is tied up in the hands of customers which then leads to increased profitability of firms. Accounts payables of firms continue to shoot up every day to a point that delivering of services is threatened and for organizations to remain profitable, inventory should be kept at the right quantities since if kept idle would involve holding cost which reduces profitability.

Keywords: Accounts receivables, Accounts payables, Inventory, Financial performance, Working capital, Deposit taking institutions, Goal programming, Liquidity- profitability trade off.

INTRODUCTION

Savings and credit cooperative societies have a great impact on the economy of any given country and in response to this impact, the government of Kenya introduced Sacco societies Act in 2008 to regulate the Saccos which led to introduction of Sacco societies' regulatory authority (SASRA) mandated with licensing and supervising of Saccos (Wanyoike, 2013). According to the study, SASRA regulations recommend that for savings and credit cooperative societies to have high financial performance, they should have competent work force and quality members of board. Financial performance of Savings and credit cooperative societies depend on their working capital. Working capital is the amount of money in regular circulation that is invested in the whole production process (Ray, 2012). Managing working capital requires the management of accounts receivables, accounts payables and inventory. Managers also should be keen when dealing with working capital management because of the way it fluctuates and also need to maximize profits through good balancing of fixed and current assets (Ray, 2012). According to Vural et al., (2012), working capital management is measured by use of cash conversion cycle which involves measuring of time taken by a business to complete a sales' cycle from the time when raw materials are bought to the time when finished goods are sold and cash received from that sale.

Working capital management technique is a crucial tool in finance for it influences the financial performance of organizations and when there is efficient mix of the working capital components, adequate capital is ensured (Agyei and Yeboah, 2011). Deposit taking institutions play a crucial role in the economy but despite this, most of them have had difficulties in their operations leading to slow growth in profitability and some going under probably because of weak working capital management practices (Agyei and Yeboah, 2011). It is the responsibility of organizations to ensure that a balance between working capital and profitability is maintained since optimal working capital guarantees meeting of short run costs plus creation of a firm's value and to get this optimality an organization should be profitable (Padachi, 2006). For optimal working capital, many organizations keep levels of working capital ratios low and increase cash circulation for maximum profits (Ebenezer and Asiedu, 2013). An investigation conducted by Napompech (2012) on effect of working capital management on profitability of Thai listed firms between the period 2007 to 2009 in Thailand using regression analysis on panel sample of two hundred and fifty five firms reveal that operating profits have a negative relationship with cash conversion cycle plus debtors collection and stock conversion periods.

Bandara and Weerakoon (2012) in their study about impact of working capital management practice on firm value divided working capital management practice into aggressive, moderate and conservative and used a sample of seventy four firms listed in

Colombo stock market in Sri Lanka. Results of the study whose data was analyzed through panel regression method show that there is a negative relationship between conservative and aggressive working capital management practices with value of the firm while there is a positive relationship between moderate working capital management practices with value of the firm and hence high values. Jayarathne (2014) study on impact of working capital management on profitability of listed firms in Sri Lanka between the period 2008 to 2012 reveal that profitability has a negative relationship with leverage, cash conversion cycle plus debtors collection and stock conversion (turnover) periods hence prompting for better working capital management practices. Jayarathne (2014) asserts that it is crucial to manage debtors well because they are directly associated with sales and stock conversion period as it is directly associated with cost and if not managed well, leads to disruption in production.

Abbadi and Abbadi (2012) on their study about determinants of working capital requirements in Palestinian industrial companies used a sample of eleven firms listed in Palestine stock market and found out that cash conversion cycle, profitability and working capital are positively related and firms maintain a manageable amount of working capital because of a long cash conversion cycle. Wasiuzzaman and Arumugam (2013) studied determinants of working capital investment in Malaysian's one hundred and ninety two listed companies from year 2000 to 2007 using ordinary least squares analysis method and found that leverage and tangible assets influence level of working capital negatively while operating cash flows and growth in sales have a positive influence on the working capital. Pouraghajan and Emamgholipourarchi (2012) in their study about impact of working capital management on profitability and market evaluation of companies listed in Tehran stock market in Iran from 2006 to 2010 found out that there is a negative relationship of cash conversion cycles and debts to assets ratio with profitability but working capital management is positively related to profitability.

An investigation by Agha (2014) on impact of working capital management on profitability using secondary data between 1996 to 2011 from the case study of Glaxo Smith Kline pharmaceutical company listed in Karachi stock market of Pakistan, indicate that there is positive influence of working capital management on profitability but current ratios have no relationship with performance and therefore recommends that stock and creditors' turnovers plus debtors ratio should be minimal to realize high profits hence calling for optimal working capital management. Raheman et al. (2010) on their study about working capital management and corporate performance of manufacturing sector in Pakistan used a balanced panel data of two hundred and four firms listed in Karachi stock market between 1998 and 2007 and found out that leverage, growth in sales, cash conversion and net trade cycles plus stock turnover positively affect performance of firms and the firms face challenges with collection policies. A

conflicting result was found by Mumtaz et al. (n. d.) on their study about impact of working capital management on firm's performance using a sample of twenty two chemical companies listed in Karachi stock market of Pakistan in the years 2005 to 2010. The findings of the study indicated that there was negative influence of working capital management on performance of the companies.

Kaur and Silky (2013) in their study on liquidity and profitability of selected cement firms in India used secondary data from the internet plus journals and analyzed the data through correlation and regression analyses methods. The results show a small relationship between liquidity ratios and profitability while cash conversion cycle, current and liquid ratios have an inverse relationship with profitability. Different results were found by Agyei and Yeboah (2011) who using panel data technique to analyze data, studied working capital management and profitability of banks in Ghana. The results were that cash conversion cycle and accounts receivables collection period is positively related to profitability while accounts payables payment period is negatively related to profitability. The study further revealed that non listed banks' performance is better than for the listed banks and size of a bank is positively related to profitability. Ebenezer and Asiedu (2013), carried out an examination on the relationship of working capital management and profitability of listed manufacturing firms in Ghana and found that profitability is influenced by the components of working capital hence recommended adoption of good working capital management practices by management to improve on profitability.

Ademola (2014) conducted an analysis on working capital management and profitability of selected listed manufacturing companies in Nigeria using survey research design and secondary data between years 2002 and 2011. The study whose data was analyzed through descriptive statistics, multiple regression and correlation analyses indicated that working capital management, cash conversion cycle and profitability are positively related while debtors' collection, creditors' payment and stock conversion periods are negatively related profitability.

Mwangi et al. (2014) in their study about effect of working capital management on performance of non-financial companies quoted in Nairobi stock market in Kenya indicate that aggressive and conservative working capital management practices have a positive relationship to performance of firms and therefore managers should embrace use of these practices in the operations of their firms. From the information reviewed, there is conflicting evidence concerning the relationship between working capital management practices and performance of institutions and the present study seeks to investigate effects of working capital management practices on financial performance of deposit taking institutions by using cash management, accounts

receivables management, accounts payables management and inventories management as the main components of working capital management practices.

Statement of the Problem

Savings and credit cooperative societies have in the past experienced harsh economic conditions due to poor management caused by incompetent employees who misappropriated approved loans leading to members receiving less (Okwee, 2011). According to Okwee (2011), savings and credit cooperative societies also have difficulties of handling liquidity hence reduced profitability which leads to their collapse. Most Saccos do not use guidelines provided by Sacco societies' regulatory authority like employing competent employees which results to poor financial performance (Wanyoike, 2013). These financial institutions struggle to pay their debts to reduce the cost of holding the debts but on the other hand there is laxity in collection of money lent out to their customers and this increases number of days that business cash stays in the hands of these customers which negatively affects profitability. This calls for payment and collection policies to be made and followed to the letter. According to Raheman et al. (2010), organizations do not adhere to collection period which leads to increased losses.

It is not clear the degree to which working capital components are managed in deposit taking institutions and hence the purpose of this study. The study's specific objectives were:

- i. To establish the extent to which management of accounts receivables influence financial performance of deposit taking institutions.
- ii. To find out the extent to which management of inventories influence financial performance of deposit taking institutions.
- iii. To find out the extent to which management of accounts payables influence financial performance of deposit taking institutions.

THEORIES ON WORKING CAPITAL MANAGEMENT

DuPont Theory of Ratio Analysis

DuPont analysis theory is a model used to analyze how profitable a firm is by use of ratios. Mitchell, et al. (2013), indicate that DuPont model is used by investors to make prudent decisions on which projects are most profitable than others. The main reason as to why investors use DuPont model is to have the knowledge as to what has caused profitability and returns in their business (Liesz and Maranville, 2008). Liesz and Maranville (2008) contend that DuPont ratio analysis involves the use of return on assets (ROA) and return on equity (ROE) which gives better understanding of organizations' profitability and owners' wealth. According to Mitchell, et al. (2013), when return on equity is maximized then profits of the firm become bigger

and rational investors tend to see that as the best investment to make though making decisions based on maximizing of return on equity may sometimes not be optimal.

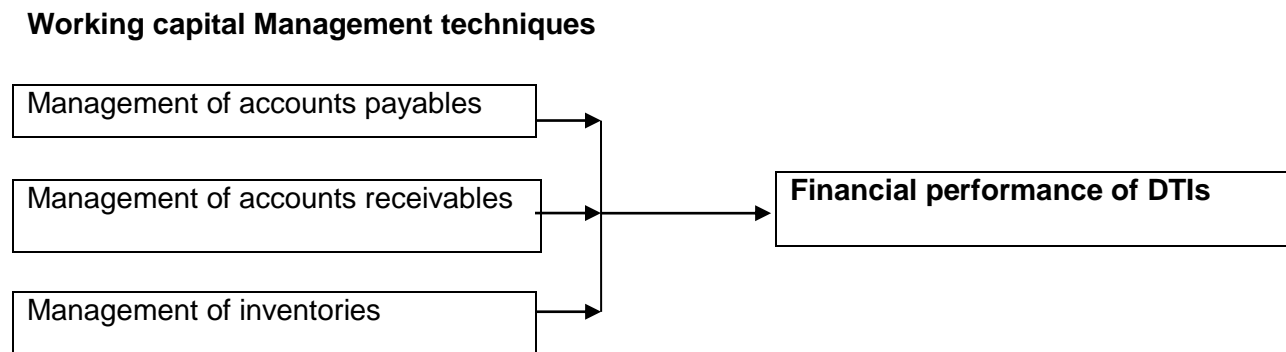
Goal Programming Model

Goal programming solves the weaknesses of simple linear programming which deals with single factors since goal programming is a multi-objective decision making method which deals with conflicting objectives like how the management can minimize risk, maximize expected returns, grow the clientele, grow capital and improve liquidity which is not a simple task (Kruger, 2011). According to Sharma et al. (2007), it is not easy to minimize or maximize all the objectives at the same time as they all conflict, for example maximizing profitability and productivity while minimizing cost of labor at same time but the use of goal programming makes it easy as tool for optimizing the goals. When using goal programming, whether a goal is attained or not is not a problem as goal programming gives a solution and information required to decision makers by stating an objective where its optimization will lead to almost the desired level of events (Orumie and Ebong, 2014). Goal programming helps in converting the multiple objectives into one objective which is satisfactory and efficient rather than optimal (Orumie and Ebong, 2014).

Liquidity- Profitability Trade off Model

Liquidity- profitability trade off involves maximization of profits through management of current assets and liabilities (Saluja and Kumar, 2012). Aminu (2012) asserts that liquidity- profitability tradeoff is important in making decisions concerning working capital management and involves careful planning to find a balance between the objectives of liquidity and profitability which do conflict. If a business is too liquid, then it is expected to make low profits and when less liquid, high profits will be expected. According to Aminu (2012), liquidity- profitability tradeoff is about risk and return where those who invest in highly risky business are expected to yield high returns and those who invest in less risky business are expected to yield low returns. The way a firm manages its liquidity influences the profitability of that firm (Kaur and Silky, 2013). This is supported by Bhunia et al. (2011) who assert that when management controls liquidity and profitability tradeoff, working capital optimality is met. Bhunia et al. (2011) contend that when liquidity is low, risks and profits tend to be high and when liquidity is high, risks tend to be low and so the profits.

Figure 1: Conceptual framework



Research Gap

Policies regarding working capital management determine the amount of cash that is held by a firm and inadequate working capital leads to inability to meet obligations like loan repayment. Despite this, many savings and credit cooperative societies do not embrace working capital management techniques which are a prerequisite for better performance of firms (Nyabwanga et al., 2012; Waweru, 2011a). Further research indicate conflicting results concerning the relationship between working capital management techniques and financial performance, for example Padachi (2006) study found out that working capital management has a significant relationship with profitability while Ongore and Kusa (2013) conflicting result was that liquidity does not influence financial performance. The foregoing reasons call for the current study to investigate influence of working capital management techniques on financial performance of deposit taking institutions.

RESEARCH METHODOLOGY

The current study used a descriptive research design to examine the savings and credit cooperative societies of Kisii County. Descriptive research design was crucial in this study since it measured comparable behavior both from the past, present and the future and hence helped in predicting the likely future performance of deposit taking institutions once the past and present situation was known (Hatch, 2009).

The target population of this study was forty five respondents from the three Kisii County savings and credit cooperative societies licensed by SACCO societies' regulatory authority. Census technique was used because of the few number of respondents obtained from only the licensed SACCOs and researcher was able to access all of them prompting involvement of the whole target population.

Primary data was collected using a structured questionnaire that was hand delivered to the respondents from the selected savings and credit cooperative societies of Kisii County. Reliability analysis was done using Cronbach's Alpha which measured the internal consistency by establishing if certain item within a scale measured the same construct. To determine reliability of the questionnaire, data was collected and analyzed from respondents of SACCOs in Nyamira which is a neighboring County. Accounts receivables had the highest Cronbach's Alpha reliability coefficient ($\alpha= 0.812$), followed by accounts payables ($\alpha=0.805$) and finally inventories ($\alpha=0.707$). Validity of the research questionnaire was determined by the help of content experts who reviewed the questionnaire.

Research questionnaires were hand delivered by the author to selected respondents of Kisii county SACCOs that were under study to collect primary data. Secondary data was also collected from audited end year financial statements and was important in this study as it provided quantitative plus confidential data (Barus and Jagongo, 2013).

Data collected was analyzed using descriptive statistics which involved use of frequency tables, percentages, mean and standard deviations. Descriptive statistics was important in this study as it provided numeric and graphical processes that gave data summaries which were clear and simple to understand (Jaggi, 2002).

RESEARCH FINDINGS AND DISCUSSION

Findings of the study's analysis were discussed through descriptive statistics where sample size of 45 respondents was targeted with 42 filling and returning questionnaires making a response rate of 93.3%. This response rate was satisfactory to make conclusions for the study since more than 30 % of the total sample size can be used to represent opinions of the entire population (Cooper and Schindler, 2003).

Accounts Receivables

Table 1: Amount organization is owed by its Members

| Amount | Frequency | Percentage |
|------------------------|-----------|------------|
| Below Ksh. 10 Million | 4 | 9.5 |
| Ksh. 10 to 50 Million | 5 | 11.9 |
| Ksh. 50 to 100 Million | 7 | 16.7 |
| Above Ksh. 100 Million | 26 | 61.9 |
| Total | 42 | 100 |

The study sought to determine amount organization is owed by its members and their effect on financial performance of deposit taking institutions in Kisii County and from the findings, majority of the respondents strongly agreed that: the amount members owe the organization were above Ksh. 100 Million as shown by percentage of 61.9, followed by a range of between 50 and 100 million as shown by a percentage of 16.7, followed by a range of between 10 and 50 million as shown by a percentage of 11.9 and lastly amount members owe the organization were below 10 million as show by a percentage of 9.5. According to the study findings, the high figures are brought by the SACCOs' laxity to collect amounts owed by members and this leads to lack of enough cash for other profitable activities. The above findings concur with those of Li (2008) who asserts that management of accounts receivables is determined by a firm's credit policy plus procedure of collecting its dues from clients and accounts receivables in any organization may lead to bad and doubtful debts and cause capital turnover to slow down. This reduces circulation of cash hence reducing growth of business.

Accounts Payable

Table 2: Statement on how much the Organization owes other Financial Institutions

| Amount | Frequency | Percentage |
|------------------------|-----------|------------|
| Below Ksh. 10 Million | 4 | 9.5 |
| Ksh. 10 to 50 Million | 6 | 14.3 |
| Ksh. 50 to 100 Million | 8 | 19.1 |
| Above Ksh. 100 Million | 24 | 57.1 |
| Total | 42 | 100 |

The study sought to determine amount organization owes other financial institutions and their effect on financial performance of deposit taking institutions in Kisii County and from the findings, majority of the respondents strongly agreed that: the amount organization owes other financial institutions was above Ksh. 100 Million as shown by percentage of 57.1, followed by a range of between 50 and 100 million as shown by a percentage of 19.1, followed by a range of between 10 and 50 million as shown by a percentage of 14.3 and lastly amount members owe the organization were below 10 million as show by a percentage of 9.5. According to this study, accounts payables were affecting operations of the firms given their magnitude and interest paid because of having them. The above findings concur with those of Khan, et al. (2012) who asserts that accounts payables results from amount of goods bought by the firm, firm's size and rate of interest in the market. Their study further contends that accounts payables constitutes the largest part of the current liabilities of any given firm usually at more than forty percent of the

total current liabilities. Accounts payables of firms continue to shoot up every day to a point that delivering of services is threatened.

Inventories

Table 3: Average Stock currently held by Organization

| Amount | Frequency | Percentage |
|------------------------|-----------|------------|
| Below Ksh. 10 Million | 6 | 14.3 |
| Ksh. 10 to 50 Million | 22 | 52.4 |
| Ksh. 50 to 100 Million | 10 | 23.8 |
| Above Ksh. 100 Million | 4 | 9.5 |
| Total | 42 | 100 |

The study sought to determine the effect of average stock currently held by the organization on financial performance of deposit taking institutions in Kisii County. From the findings, majority of respondents indicated that average stock held by organizations was between 10 to 50 million shillings as shown by a percentage of 52.4, followed by between 50 to 100 million shillings as shown by percentage of 23.8 then followed by below 10 million shillings at a percentage of 14.3 and finally above 100 million shillings at a percentage of 9.5. The stock levels were optimal according to respondents since they were neither too low nor too high to cause adverse effects like losses to the organization. The findings concur with study findings by Panigrahi (2013) who assert that inventory should be kept at the right quantities since it is an idle asset and involves holding cost which reduces profitability and bring liquidity problem if management is not done properly; most organizations go under because of either stocking less or more than required quantities of inventory.

Financial Performance

Table 4: Average amount of Profit Before Tax made by the SACCO over period of 5 years

| Amount | | | | | | Mean | Standard deviation |
|-------------------------------|------|------|------|------|------|------|--------------------|
| | 2010 | 2011 | 2012 | 2013 | 2014 | | |
| Below Ksh. 10 Million | 9 | 7 | 7 | 12 | 10 | 9.0 | 1.90 |
| Ksh. 10 to 50 Million | 7 | 10 | 12 | 12 | 9 | 10.0 | 1.90 |
| Ksh. 50 to 100 Million | 16 | 10 | 11 | 7 | 10 | 10.8 | 2.93 |
| Above Ksh. 100 Million | 10 | 15 | 12 | 11 | 13 | 12.2 | 1.72 |

The study sought to determine the average amount of profit before tax made by the SACCO over a period of 5 years and their influence on financial performance of deposit taking institutions in Kisii County, Kenya. From the findings, majority of the respondents indicated that the average amount of profit before tax made by the SACCO over the 5 years was above 100 million as shown by a mean of 12.2 in the given years, then between 50 and 100 million shillings as shown by mean of 10.8, followed by between 10 to 50 million shillings as shown by mean of 10.0 and finally below 10 million as shown by mean of 9.0. Respondents further indicated that the high profits were brought by doing business in a politically stable economy. The above findings concur with study findings by Slade (2000) who contends that poor timing by business people is dangerous for one will find himself doing business when cost of raw materials is high and price of finished goods low hence lead to losses. Managerial flexibility is therefore important especially during harsh economic times, like closing business doors and then reopening when economic conditions improve.

CONCLUSIONS

From above findings, the study ascertained that management of accounts receivables reduces the amount of cash that is tied up in the hands of customers which then leads to increased profitability of firms. Accounts receivables can be divided into trade receivables and accounts receivables where the former represents amount owed to the organization by its customers and the latter represents amount owed to the organization by its employees. The study also established that accounts receivables are payments not yet received from customers for goods and services that were provided to them on credit, accounts payables results from amount of goods bought by the firm, firm's size and rate of interest in the market. Accounts payables constitute the largest part of current liabilities of any given firm usually at more than forty percent of the total current liabilities. Accounts payables of firms continue to shoot up every day to a point that delivering of services is threatened.

The study also ascertained that for the organization to remain profitable, inventory should be kept at the right quantities since it is an idle asset and involves holding cost which reduces profitability and bring liquidity problem if management is not done properly, most organizations go under because of either stocking less or more than required quantities of inventory.

The study established that investments with high managerial flexibility experience low funds flow and high performance hence high returns. The management is therefore able to put funds in areas where investment is not liquid which leads to high persistence in good

performance thus the most important objective of an organization is that of making profits since one of the organizations' goals is to maximize the share holders' wealth.

RECOMMENDATIONS

Following above study findings, it is recommended that the management of deposit taking firms should consider proper management of accounts receivable to ensure financial performance of SACCOs in Kisii County. This will allow the management to create a comprehensive understanding that can be leveraged to influence stakeholders and create better decisions.

The study further recommends that it is crucial for organizations to put in place proper measures on the management of accounts payable that will help them gather information which will provide valuable insights in the strategy and the necessary input to find effective responses to optimize financial performance of deposit taking firms.

The study goes on to recommend that the management should keep on monitoring inventory procedure and benefits paid to shareholders of deposit taking firms so as to ensure an increase in profits. This will help in identifying whether the adopted counteractive measures are making any acceptable difference in working capital management techniques or not.

The study recommends that management should have effective working capital management techniques. This will help to identify problems likely to bring significant increase in the budget, or cause financial performance problems. By proper dealing with potential working capital management techniques in advance, organizations can respond effectively to challenges whenever they emerge thus ensuring effective financial performance of SACCOs in Kisii County.

RECOMMENDATIONS FOR FURTHER STUDIES

The present research intended to find out influence of working capital management techniques on financial performance of deposit taking institutions with a survey study of SACCOs in Kisii County, Kenya. Other researchers may narrow down and focus on the relationship between inventory management techniques and financial performance of deposit taking institutions in Kenya.

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