

DETERMINANTS OF FINANCIAL SUSTAINABILITY OF SAVINGS AND CREDIT COOPERATIVES OF MATATU INDUSTRY SECTOR IN NAKURU COUNTY, KENYA

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ABSTRACT

The study examined cash management as one of the determinants of financial sustainability of Saccos in the matatu industry in Nakuru County, Kenya. The study was guided by the static trade-off theory of capital structure and agency cost theory. A descriptive survey research design was adopted. A total of 116 employees working with such Saccos in Nakuru County constituted the study population. A simple random sampling technique was adopted to draw 54 respondents from the study population. A structured questionnaire was used to facilitate data collection. The research questionnaire was subjected to a pilot test to determine its validity and reliability. The data were analyzed with the facilitation of the Statistical Package for Social Sciences software. Data analysis was subjected to both descriptive statistics and inferential statistics. The null hypothesis was tested using the t-statistics at 95% confidence level. The results of the study were presented in form of tables and were accompanied by relevant interpretations and discussions. The study established that cash management significantly influenced ($p < 0.05$) financial sustainability of Saccos in the matatu industry. The aforementioned determinant was found to explain 17.4% of variance in financial sustainability of the stated Saccos. It was concluded that cash management impacted on financial sustainability of matatu Saccos in Kenya. The study recommended that the management should balance the cash management levels with the frequent needs of the Saccos. Moreover, it is recommended for the Saccos to diversify their sources of income in order to boost their financial sustainability.

Keyword: Cash management financial sustainability, matatu industry, savings and credit cooperatives

INTRODUCTION

Financial sustainability is a threshold that organizations in both public and private; profit and non-profit making strive to achieve. It is described as the capacity of an organization to obtain revenues with the view of sustaining productive processes or activities at a steady or growing rate in order to produce results as exemplified by accomplishment of mission, goals, and/or objectives. Financial sustainability enables a firm to cover its various costs in short, medium and long-run (Leon, 2001). In this respect, therefore, a financially sustainable entity has the capacity to execute its mandate without depending on other entities for financial support.

According to the International Labour Organization (ILO), one of the five pillars of the International Co-operative Alliance's (ICA) blueprint is sustainability. The object of the roadmap

is to position cooperative societies as builders of economic, social and also environmental sustainability by 2020 (ILO, 2015).

In Uganda, the greatest hindrance to financial sustainability of Saccos is lack of savings by Sacco members. Moreover, according to a report commissioned by the United States Agency for International Development, tier 4 institutions which include Saccos and loans and savings association face sustainability challenges (Barigye, Butamanya, Fischer & Wambua, 2006). It was further reported that unpredictable Ugandan government policies are a threat to sustainability of a Union bringing together Saccos in the country. This is due to lack of government support towards cooperative movement (Barigye et al., 2006).

The Supervision Report by the Sacco Society Regulatory Authority (SASRA) of 2011 indicated that the cooperative movement in Kenya, particularly Saccos, constitute a dominant financial force in Africa (SASRA, 2011). Statistics contained in the reports further stated that, as at 2010, the total assets of the sector amounted to Ksh 216 billion. In the same vein, the sector is arguably the largest on the continent. It accounts for about 60% of the continent's savings, 63% of total assets, and 64% of the continent's loan portfolio (SASRA, 2011).

The financial sustainability of Saccos in Kenya is paramount and as such should be ensured by pertinent stakeholders. This is supported by the statistics that underscore the significant role that the sector plays towards the socio-economic development of the county. According to Kembo and Mwakujonga (2013), Saccos in Kenya contributes at least 45% to the country's Gross Domestic Product (GDP). In addition, it is reported that at least 50% of Kenyans directly or indirectly depend on cooperative movements for their livelihoods. Transaction costs are a hindrance to financial sustainability of Saccos in the tea sub-sector in Kenya. Coupled with increased transactions cost, other factors that compromise the said sustainability include a decline in growth of assets, poor loan portfolio, and rising default rates among other factors (Maina et al., 2013).

The matatu industry plays a significant socio-economic role in that it facilitates mobility of passengers and goods, besides contributing substantially to the country's gross domestic product (Mitullah & Onsate, 2013). However, the industry has hitherto been bedeviled by lack of compliance with public transport regulations. In addition, the sector seems to attract personnel who are not only careless but also resistant to rules and regulations that govern the transport sector in Kenya. So far the industry has witnessed five key turning points. The most outstanding point was the introduction of the renowned Michuki rules christened from the then Transport Minister, Hon. John Michuki. The Michuki policy which came to effect early 2014 is enshrined in Legal Notice No. 161 of 2003. The rules reduced road carnage by reducing the number of passengers a public service vehicle (PSV) was legally supposed to carry, and also required these vehicles to have speed governors for limiting their speed to a maximum of 80 kilometres per hour.

However, the Michuki rules had far-reaching financial implications. The cap on the number of passengers the matatus were supposed to transport resulted in reducing the number of vehicles on the roads. This necessitated drastic increase in fare charged on commuters (Mitullah & Asingo, 2009). In turn, passengers reduced their travels and also resorted to non-motorized modes of transport particularly when covering relatively short distances. Beginning early 2011, all matatus operating on Kenyan roads were required by the Transport Licensing Board (TLB) presently

referred to as National Transport and Safety Authority (NTSA), to be members of Saccos. The aim was to ensure that there is self-regulation in the sector to effectively deal with errant matatu operators. Other objects of Saccos included effective implementation of Legal Notice of 2003, cushion individual matatu owners from cartels, and also ultimately get rid of the said cartels from the matatu industry (Mitullah & Onsate, 2013). Given the socio-economic importance of the matatu industry to thousands of households and the nation at large, it was found necessary to investigate the various determinants of financial sustainability of the Saccos in this sector.

Statement of the Problem

The financial sources of Saccos in the matatu industry is highly skewed since it is highly dependent on the membership fees and levies charged on individual vehicles. This is against the backdrop of significant operation costs accruing from directors' allowances, staff salaries and wages, licensing fees, taxation, other administrative costs, and also the fees paid to cartels that rule the industry (Oira & Makori, 2015). The financial impediments facing these Saccos are underlined by lack of proper infrastructure and competent staff in many of these entities. Some of the major outcomes of lack of financial sustainability include reduced investment in the industry and also ultimate collapse of the Saccos. Reduced investment in the industry stems from among others, the inability of the sector to generate revenue that can guarantee its financial sustainability (Oira & Makori, 2015). Other outcomes of failed financial sustainability include the Saccos being obliged to operate from makeshift offices usually located at matatu termini and also recruiting unprofessional staff with limited financial intellect. Granted that the matatu industry employs thousands of Kenyans and millions of households depend on it for their commuting and/or livelihoods, it is imperative to investigate various determinants of its financial sustainability.

Hitherto empirical studies on the matatu industry have not adequately addressed the issue of financial sustainability. A study by Mwaura (2014) examined determinants of financial performance of registered matatu Saccos in Kiambu County. Among the studied indicators, government influence was found to be the most significant influencer of financial performance. A study conducted by Zakkies (2016) capital budgeting practices and performance of matatu business in Kisii County. The study found that, management of matatu Saccos should hire at least financial experts to advice members on financial matters. Another study conducted by Chumba (2015) examined factors affecting performance of family-owned matatu businesses in Nairobi. The study found that financial access of affected performance of the stated businesses. Therefore, according to the reviewed studies, there exists conspicuous research gaps on financial sustainability of Saccos in the matatu industry in Kenya. It is on these grounds that the present study will be conducted.

The results of this study will enable Saccos in the matatu industry to improve their financial sustainability by adopting and implementing the suggested recommendations. The ultimate object of this study, therefore, is to salvage the financial sustainability of the matatu industry and eventually uplift the livelihoods of millions of Kenyans who directly or indirectly depend on the industry. Therefore, it was deemed necessary to evaluate the various determinants of financial sustainability of Saccos in the matatu industry in Kenya.

Objective of the Study

To examine the effect of cash management on financial sustainability of Saccos in the matatu industry in Nakuru County

Research Hypothesis

H₀: There is no statistically significant effect of cash management on financial sustainability of Saccos in the matatu industry in Nakuru County.

H_A: There is no statistically significant effect of cash management on financial sustainability of Saccos in the matatu industry in Nakuru County.

Theoretical Framework

Modern portfolio theory

The theory is a product of Markowitz (1952) portfolio selection theory and Sharpe's (1964) theory of financial asset pricing or otherwise capital asset pricing theory. Modern portfolio theory makes numerous assumptions about markets and investors. It is assumed that investors are rational such that they maximize returns and minimize risks, investors only accept higher risk for higher expected returns, they can borrow or lend unlimited amount of capital at risk free interest rate, market is perfectly efficient and do not include transaction costs or taxes and that it is possible to select securities whose performance is not pegged on other portfolio investments.

Modern portfolio theory according to Fabozzi, Gupta & Markowitz (2002) is an investment framework for selection and construction of portfolios in respect to the maximization of portfolio returns and minimization of investment risk. According to the theory, risk can be measured using mathematical formulations and can be reduced through investment diversification. The rationale of diversification is to select a weighted collection of investment assets with low volatility than investment in any individual asset or singular asset class (Mclure, 2010). According to Thomas (2011) security valuation, asset allocation, portfolio optimization and performance measurement are the most important steps in portfolio construction. The theory is fundamental for pension fund managers in assessing the returns and risks in investing in particular asset classes. The theory can be used by matatu Sacco managers to determine the best portfolios they can invest their proceeds in with the view of ensuring their financial sustainability.

Agency cost theory

The agency cost theory was pioneered by Jensen and Meckling (1976). The theory states that there exists conflict between shareholders and managers, that is, between principals and agents respectively. According to Jensen (1986), the aforesaid conflict arises since shareholders require payouts for their investment, thus reducing the internal resources that are controlled by managers. Granted that managers are compensated or remunerated based on accounting profits, there get motivated to manipulate information, and/or prioritize projects whose NPV is poor as long as they are able to provide immediate profits (Dogan & Smyth, 2002).

According to Jensen and Meckling (2001), the stated move is bound to result in negative results where concerned organizations are likely to incur loss in their value. It is further postulated that the desire for high rewards by managers (agents) incentivize them to manipulate, overestimate, or underestimate indicators, which way it is to their convenience, with the view of making those parameters much easier to realize. This move is to the detriment of the value of concerned firms. The theory exemplifies managers coming up with lower budgets or having inefficient debt targets.

It is stated that the agency costs of separating ownership of a firm from control is supposed not to be excessive as long as factors like executive labour markets, competition, and incentive plans are designed in such a way they are able to minimize the vested interests of managers (Jensen & Meckling, 1976). In relation to the present study, the agency cost theory could be applied to illustrate how financial sustainability of Saccos is likely to be compromised in the event of principal-agent conflict. Pursuing self-interests is likely to motivate managers of Saccos not to act in the best interest of the Sacco members (principals). Manipulating financial information and presenting results that do not reflect the precise financial position of Saccos in order for them to be compensated, is likely to render Saccos in financial difficulties, particularly, in the long term. Therefore, in order for financial sustainability to be realized, Saccos need to ensure that the agency costs are highly reduced.

Empirical Review

Cash management and financial sustainability

An empirical analysis on cash conversion cycle (CCC) and profitability of firms was conducted in Italy by Muscettola (2014). The analysis involved a sample of 4,226 small and medium enterprises (SMEs) in the manufacturing sector. The study sought to examine the influence of CCC on profitability of manufacturing SMEs in Italy. The study admitted that the CCC is considered to be a crucial factor particularly in respect of cash management. The results of the study indicated that there was a significant association between average receivables period and profitability. The study concluded that in general, cash management is premised on cash conversion cycle, and is one of the most vital factors that enhance performance of firms. This is due to the fact that it illustrates the efficiency of a firm in paying bills, collecting payments, and also selling inventory.

An empirical study of cash management was conducted by Amit (2014). It was a case of Lupin Limited, pharmaceutical company operating in India. The study was guided by the hypothesis that there was no significant difference in the cash management position of the company during the study period. The study analyzed data obtained from the annual reports that were published periodically by the firm. The study concurred that cash management constituted a series of activities that were aimed to efficiently handle both the inflow and outflow of cash. It was noted that cash is considered to be fundamental for survival of every business enterprise. In this regard, therefore, cash management was found to be indispensable. Moreover, it was noted that effective management of cash is necessary in running every business since improper management of the same leads to business failure. Moreover, it was observed that effective cash management involves an attempt to reduce investment in cash without compromising the liquidity of the entity. The study found that Lupin Limited used various ratios in management cash. These included cash turnover ratio, basic defensive ratio, daily cash payment ratio, absolute liquid ratio, cash to debt service ratio, and cash conversion cycle.

In Africa, an empirical study was conducted by Aren and Sibindi (2014) on cash flow management practices. The study focused on small businesses operating in the retail sector in Pretoria, South Africa. The study examined the influence of cash flow management practices on the survival of micro, small and medium enterprises (MSMEs). The study acknowledged that the financial health of MSMEs in the country was founded on prudent financial management

practices, particularly, cash flow management. The findings of the study indicated that cash flow management was very important to the survival of small businesses. On the other hand, it was found that poor cash flow management could result in failure of small businesses.

A study conducted by Waweru (2011) investigated the cash balance management approaches in Saccos in Nakuru County, Kenya. The study was premised on the argument that cash management is an important part of any business for such enterprise to survive. The study focused on a total of 143 Saccos in Nakuru County where a sample of 38 Saccos was selected using stratified random sampling technique. The findings of the study revealed that a majority of the sampled Saccos were aware of the need to manage their cash balances. However, this notwithstanding, the study found that only few Saccos had policies on cash balances management. Moreover, the study observed that Saccos managed in a haphazard manner. In addition, it was indicated that there was on one cash management model that was employed entirely. Another observation was that there was no substantive difference in respect of the cash management approaches that were used by employee-based Saccos and those used by association-based Saccos.

Another local study was carried out by Njeru, Njeru, Member, and Ondabu (2015) analyzed how cash management affect financial performance of deposit taking Saccos in Mount Kenya region. The study surveyed 30 licensed deposit taking Saccos in Mount Kenya region. The study adopted a descriptive survey. Simple random sampling method was employed to draw 92 respondents from the study population. The study analyzed both primary data and secondary, where the latter were sourced from audited financial statements of the Saccos and SASRA. In line with the study findings, it was concluded that there was a need to introduce cash management controls in Saccos.

Financial sustainability

A regional study was conducted by Tilahum (2013) on determinants of financial sustainability of microfinance institutions in East Africa. The study adopted both binary probit and ordered probit regression models in identification of factors that influence the aforesaid financial sustainability. Unbalanced panel data from 23 MFIs in East Africa for the period between 2004 and 2009 were used in the analysis. The study established that financial sustainability was positively influenced by loans intensity and loan size. On the other hand, the influence on the same was negatively affected by management inefficiency and portfolio at risk. In the same perspective, it was found that breadth of outreach and deposit mobilization were not significant determinants of financial sustainability of MFIs in East Africa.

A study by Marwa and Aziakpono (2015) investigated financial sustainability of savings and credit cooperatives in Tanzania. The study analyzed the link between profitability and financial sustainability of Saccos. The data employed in the study was drawn from audited financial reports of Saccos for year 2011. While profitability was estimated by use of return on assets (ROA), the indicators of financial sustainability were the ratio of total expenses to total revenue. The determinants of financial sustainability were investigated using linear regression. The findings of the study revealed that approximately 61% of the sampled Saccos were operationally sustainable while 51% of the said financial entities were both operationally and financially sustainable with an average sustainability score of 127%. It is evident from the results of the

study that it was easier to attain operational sustainability as opposed to financial sustainability. In a case of Tea Saccos in Kericho, Buret and Bomet Districts in the Republic of Kenya, Maina et al (2013) evaluated sustainability of microfinance. The study was necessitated by the argument that little was hitherto in the limelight regarding determinants of financial sustainability amongst the aforementioned Saccos. The study was delimited to six Saccos in the stated regions. The study revealed that growth of net assets had declined in the past couple of years. It was also found that the Tea Saccos had poor loan portfolio and high default rates which were indicative of problems in financial sustainability of these financial institutions. Moreover, the study indicated that high transaction costs hampered financial sustainability of the Saccos.

Moreover, Kivuvo and Olweny (2014) analyzed the financial performance of the Sacco sector in Kenya. The analysis adopted the Altman Z score model of corporate bankruptcy. The study centred on 215 deposit-taking Saccos where a sample of 30 such Saccos was the unit of analysis. The study observed that some of the root causes of financial instability, a manifestation of lack of financial sustainability, in Saccos included insolvency. In relation to this and in an effort to enhance financial sustainability of Saccos in Kenya, there are enhanced requirements that emphasize on capital adequacy among Saccos. In regard to the study findings, it was inferred that regulatory agency was right in stressing on additional capital base as a way of enhancing financial sustainability in local Saccos.

Conceptual Framework

The variables of the study are conceptualized in a framework (conceptual framework). This framework is defined as a representation of study variables and how they are believed to interact. The framework can be presented in a diagram as shown in Figure 1 or in a narrative, or both. The conceptual framework illustrates the independent, dependent and intervening variables. These include cash management, financial sustainability, and Sacco Society Regulatory Authority (SASRA) respectively. As conceptualized in the figure, cash management was presumed to relate to financial sustainability of matatu Saccos. In the same perspective, SASRA was believed to confound the relationship between the aforementioned study constructs. This was due to the fact the operations of registered Saccos in Kenya regardless of the sector are regulated by SASRA.

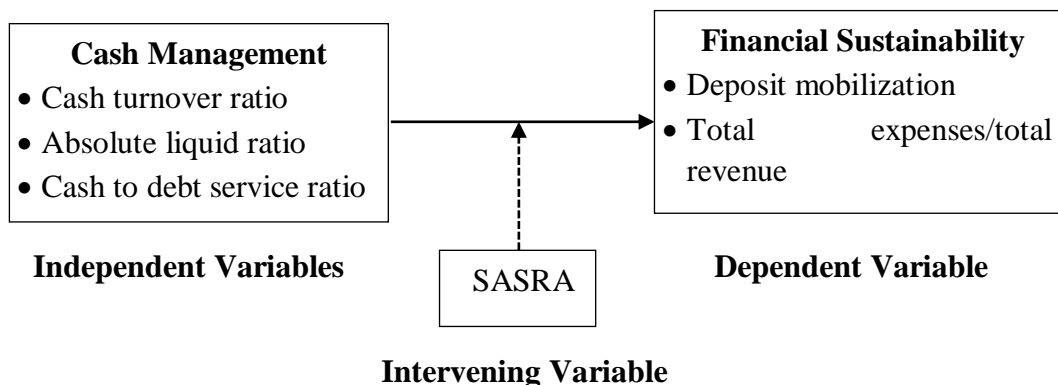


Figure 1: Conceptual Framework

RESEARCH METHODOLOGY

Research Design

According to Kothari (2004; 2008), a research design is a roadmap that guides how a study is conducted. In this study, a descriptive survey research design was adopted. Mugenda and Mugenda (2003) stated that a descriptive study is one that is conducted without altering the phenomena, that is, the source data. This implies adoption of this research design enables carrying out of a study and reporting the findings exactly the way they are. Therefore, the data in regard to financial sustainability of Saccos in the matatu industry were collected without any manipulations and involved reporting findings precisely according to how the data were captured.

Target Population

Target population is defined as an aggregate of individuals or subjects sharing common observable characteristics in respect of a given study (Mugenda & Mugenda, 2003). The study targeted the Saccos registered with the NTSA in Kenya where the point of focus was the employee in charge of finance of their respective Saccos. However, the study narrowed down to registered Saccos in matatu industry operating in Nakuru County. When the study was conducted, there were 116 Saccos registered with the NTSA operating in the County (NTSA, 2018). Given that the focus was on the most informed and reliable staff on issues of financial sustainability for each Sacco, the study population constituted 116 members of staff.

Sampling Technique

Sampling is a procedure of deriving a unit of analysis from the study population, particularly when the study population is relatively large, for instance, more than 100 (Kothari, 2008). Granted that the study population constituted 116 Sacco staff, and that the study targeted the treasurer as the key informant, sampling was therefore necessitated. A formula by Nassiuma (2008) was used to determine the sample size as shown below.

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

Where
n represents sample size
N represents study population (155)
C represents coefficient of variation (21% - 30%)
e represents error margin (0.02 - 0.05)

The above equation is substituted as follows:

$$n = \frac{116(0.25)^2}{0.25^2 + (116-1)0.025^2}$$

$$n = 53.9$$

$$n = 54 \text{ respondents}$$

According to the calculations shown above, the sample size comprised of 54 respondents. Granted that the aforementioned Saccos are expectedly similar relative to their financial sustainability, simple random sampling technique was adopted. This method, as Kothari (2004)

asserts, ensured that all respondents representing their respective Saccos had an equal chance of participating in the Study.

Research Instrument

A research instrument is a tool that is used to aid in collection of data. In this study, a structured questionnaire was used to facilitate data collection. The reason this tool was chosen was founded on the fact that it was able to facilitate collection of quantitative data particularly in respect of study variables and objectives. In relation to study variables, the questionnaire constituted item on a 5-point Likert scale.

Pilot Testing

The research questionnaire was subjected to a pilot test. The pilot study involved Saccos in the matatu industry operating in Kericho County. A total of 6 respondents who constituted about 10% of the unit of analysis (54) participated in the pilot study (Creswell, 2009). The choice of Kericho County was based on the fact that the Sacco employees there exhibited similar characteristics to the ones in Saccos in matatu industry in Nakuru County in respect of their knowledge regarding financial sustainability. The rationale of conducting the pilot test was to determine the validity and reliability of the research questionnaire before it was used in facilitating collection of data for the main study.

According to Kimberlin and Winterstein (2008), a valid instrument is the one that measures what it purports to measure. Therefore, a valid instrument enables collection of data that can effectively address the study objectives. In respect of this study, content validity was determined by consulting with the University supervisors regarding how well the questionnaire was able to facilitate collection of requisite data.

Reliability is a measure of internal consistency of the research instrument. According to Kothari (2004), a reliable instrument is able to aid collection of similar data when administered on respondents from different units of analysis but within the same target population. Given that the questionnaire had items on a Likert scale, the Cronbach's alpha coefficient (α) was used to test the instrument's reliability. The factors (variables) that returned coefficients at least equal to 0.7 were considered reliable. The results of reliability test as shown in Table 1 indicate that all the study constructs were found to be reliable.

Table 1: Reliability Test Results

Study Constructs	Items	Coefficient
Cash Management	5	0.82
Financial Sustainability	8	0.86

Data Collection Procedure

Data collection procedure followed the validation of the data collection instrument. The researcher obtained a formal approval from the University to embark with data collection. This was followed by sourcing an authorization letter and research permit from the National Council of Science, Technology and Innovation, the agency mandated by the government to oversee individual and corporate research in Kenya. The researcher then sought the formal consent of the management of Saccos in the matatu industry in Nakuru County. The issuance of questionnaires to the respondents was effected through the Sacco offices by the researcher. The questionnaires

were filled and collected the same day as a way of mitigating logistic constraints.

Data Processing and Analysis

The collected filled questionnaires were screened to ensure that the incomplete and inappropriately filled ones were discarded. This procedure entailed data screening with the object of getting rid of potential outliers that would otherwise have compromised the results of the study. The data were then coded, input and analyzed with the facilitation of the Statistical Package for Social Sciences (SPSS – Version 24) software. The SPSS enables electronic data processing and analysis. Data analysis was subjected to both descriptive statistics and inferential statistics. Descriptive statistics constituted frequencies, percentages, means, and standard deviations. Inferential statistics were in form of both Pearson’s correlation analysis and multiple regression analysis. The null hypotheses were tested using the t-statistics at 95% confidence level ($p = 0.05$). The following regression model was adopted to guide in the inferential analysis.

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where

Y represents ‘Financial Sustainability’

β_0 represents Constant

X_1 represents ‘Cash Management’

ε represents ‘Error Term’

β_1 represents ‘Regression Coefficient of the Independent Variable’

The results of the study were presented in form of tables and were accompanied by relevant interpretations and discussions.

RESULTS

Response Rate

The number of questionnaires which are filled in accordance to instructions and returned against the total number of questionnaires administered on respondents constitute the response rate or questionnaire return rate. In regard to this study, the unit of analysis was 54 which mirrored the total number of questionnaires issued to respondents. Given that a total of 52 questionnaires were filled and collected from the sampled respondents, then the response rate was found to be 96.3%.. According to Fincham (2008) the goal of researchers in respect of response rates should be approximately 60%.

Descriptive Results

The study evaluated the opinions of staff handling finances on behalf of matatu Saccos. Under this section are issues touching on cash management, SASRA, and financial sustainability of the aforestated Saccos.

Cash management in matatu Saccos

The descriptive results indicated in Table 2 are in relation to cash management in Saccos in matatu industry in Nakuru County, Kenya.

Table 2: Descriptive Statistics for Cash Management

	n	SA	A	NS	D	SD	Mean	Std. Dev.
Our Sacco has adequate cash to address its outstanding debts	52	30.8	53.8	7.7	7.7	0	4.08	.837
Our Sacco strikes a balance between cash availability and profitability	52	23.1	46.2	23.1	7.7	0	3.85	.872
The cash balances of our Sacco have reduced over the past one year	52	23.1	30.8	30.8	15.4	0	3.62	1.013
The financial assets of our Sacco are easy to convert to cash	52	23.1	30.8	15.4	15.4	15.4	3.31	1.394
Our Sacco often has idle cash	52	0	38.5	15.4	30.8	15.4	2.77	1.131

The study as shown in Table 2 established that 84.6% admitted that matatu Saccos had adequate cash to address their outstanding debts. In the same perspective, majority of the respondents (69.3%) were found to concur that the Saccos struck a balance between cash availability and profitability. However, the study revealed that while 53.9 of the respondents agreed that the cash balances of the Saccos had reduced over the past one year, a significant number (30.8%) remained indifferent. A total of 30.8% of the respondents disputed that the financial assets of the Sacco were easy to convert to cash. On the same breadth, the study revealed that 46.2% of the selected staff disagreed that the foretasted Saccos often had idle cash.

In general, the study revealed that respondents were in agreement that matatu Saccos had adequate cash (mean = 4.08), and that the Saccos were able to balance availability of cash with profitability (mean = 3.85). In respect of these propositions, the respondents held similar opinions as depicted by the insignificant variation in their views (std dev < 1.000). Though there was general agreement that the cash balances of matatu Saccos operating in Nakuru County had reduced over the preceding one year (mean = 3.62), there was significant variation in the views of the respondents regarding this assertion (std dev = 1.013). On average, respondents were not sure on whether or not the financial assets of the Saccos were easy to convert to cash (mean = 3.31), and or if the Saccos often had idle cash (mean = 2.77). In respect of the foregoing two assertions, the respondents indicated significant variation in their views (std dev > 1.000).

Financial sustainability of matatu Saccos

The study further analyzed the extent to which matatu Saccos were financially sustainable. The parameters of financial sustainability that were investigated include capital base, revenue, loan default, deposits, expenses, and loan portfolio. The results regarding the foregoing indicators are shown in Table 3.

Table 3: Descriptive Statistics for Financial Sustainability

	n	SA	A	NS	D	SD	Mean	Std. Dev.
The Sacco's capital base has significantly increased	52	23.1	69.2	7.7	0	0	4.15	.538
The total revenue collected by our Sacco has increased substantially	52	30.8	53.8	7.7	7.7	0	4.08	.837
The threat of Sacco closing down has significantly been reduced	52	15.4	76.9	0	7.7	0	4.00	.686
There are fewer cases of loans failing to be paid on time compared to previous years	52	15.4	61.5	15.4	7.7	0	3.85	.777
Our Sacco has recorded significant increment in mobilized deposits	52	7.7	61.5	23.1	7.7	0	3.69	.729
Our Sacco has recorded significant decline in the number and amount of loan defaults	52	15.4	38.5	30.8	15.4	0	3.54	.939
There has been a reduction in total expenses incurred by our Sacco	52	23.1	15.4	15.4	23.1	23.1	2.92	1.506
The Sacco's loan portfolio has remained the same	52	0	38.5	15.4	38.5	7.7	2.85	1.036

The study, according to the results illustrated in Table 3, found that majority of respondents admitted that the Saccos' capital base had significantly increased (92.3%); the total revenue collected by the Saccos had increased substantially (84.6%); and also that the threat of Saccos closing down had significantly been reduced (92.3%). These findings clearly shows an admission by the respondents of matatu Saccos having recorded improved financial sustainability, at least in respect of capital base, revenue, and threat of closure.

The study also revealed that, 76.9% of respondents agreed that there were fewer cases of loans failing to be paid on time compared to previous years while 78.2% admitted that the matatu Saccos had recorded significant increment in mobilized deposits. It was also established that a significant number of respondents (30.8%) were not sure whether or not the Saccos had recorded significant decline in the number and amount of loan defaults. Most of the respondents (46.2%) were found to dispute that there had been a reduction in total expenses incurred by the Saccos, and also that the loan portfolio of the Saccos had remained constant.

Generally, the study observed that the Saccos' capital base and total revenue had increased significantly (mean > 4.00). It was also found that respondents were in agreement that the threat of matatu Saccos closing business had reduced drastically (mean = 4.00); delinquent loans ad reduced when juxtaposed against preceding years (mean = 3.85); and also that the Saccos had recorded significant increment in mobilized deposits (mean = 3.69). It was also admitted that the Saccos had recorded a significant decline in loan defaults (mean = 3.54). However, the study revealed that the respondents were generally indifferent regarding the Saccos realizing a

reduction in their total expenses (mean = 2.92), and the Saccos' loan portfolio remaining constant (mean = 2.85). Except on the aspects of total expenses (std dev = 1.506) and loan portfolio (std dev = 1.036), the views of respondents were found to be largely similar (std dev < 1.000) on issues characterizing financial sustainability of matatu Saccos operating in Nakuru County.

Sacco society regulatory authority and matatu Saccos

The study also examined various issues touching on both the SASRA and matatu Saccos.

Table 4: Regulation of Saccos by SASRA

	Frequency	Percentage
No	24	46.2
I don't know	16	30.8
Yes	12	23.1
Total	52	100.0

The study as shown in Table 4 revealed that majority of the respondents (46.2%) disputed that all Saccos were regulated by SASRA. It was also found that a significant number of respondents (30.8%) were not conversant with the regulations of Saccos, that is, the Saccos that SASRA regulates and those it does not.

Inferential Findings

The study sought to establish the relationship between cash management and financial sustainability of matatu Saccos in Nakuru County. In addition, the study analyzed the effect of the mentioned determinant on financial sustainability. Both Pearson's correlation and multiple regression analyses were conducted to this effect.

Results of correlation analysis

The results of Pearson's correlation analysis illustrated the relationship between cash management and financial sustainability. The pertinent results are as shown in Tables 5.

Table 5: Relationship between Cash Management and Financial Sustainability

Cash Management		FinancialSustainability
	Pearson Correlation	.418**
	Sig. (2-tailed)	.002
	n	52
**. Correlation is significant at the 0.01 level (2-tailed).		

As shown in Table 5, the study established that there existed a positive, moderate, and

statistically significant relationship between cash management and financial sustainability ($r = 0.418$; $p < 0.05$).

Results of regression analysis

The study analyzed the effect of cash management on financial sustainability of Saccos in the matatu industry in Nakuru County. As shown in Table 6, the relationship (R) between the aforesaid determinant and financial sustainability was determined. In addition, the study analyzed the coefficient of determination (R^2) with the view of establishing the extent to which the cash management explained variation in financial sustainability of matatu Saccos.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.418 ^a	.174	.158	.41504

a. Predictors: (Constant), Cash Management

As shown in Table 6, it was established that there existed a positive and moderate relationship between the cash management and financial sustainability ($R = 0.418$). The results indicated in Table 7 showed that the aforesaid relationship was statistically significant ($p < 0.05$). In addition, it was revealed that cash management could explain 17.4% variation in financial sustainability of matatu Saccos in Nakuru County ($R^2 = 0.174$).

Table 7: Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1.820	1	1.820	10.564	.002 ^a
Residual	8.613	50	.172		
Total	10.433	51			

a. Predictors: (Constant), Cash Management
b. Dependent Variable: Financial Sustainability

The results of analysis of variance depicted in Table 7 illustrated that the regression model shown below was statistically significant ($F = 10.564$; $p < 0.05$). The results justified the suitability of the model in analyzing the various determinants of financial sustainability.

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where

- Y represents 'Financial Sustainability'
- β_0 represents Constant
- X_1 represents 'Cash Management'
- ε represents 'Error Term'
- β_1 represent 'Regression Coefficient of the Independent Variable'

Table 8: Regression Coefficients

Model	Unstandardized Coefficients		Standardized	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.537	.343		7.401	.000
CashManagement	.312	.096	.418	3.250	.002

a. Dependent Variable: Financial Sustainability

The results of regression analysis shown in Table 8 were used to interpret the regression model as illustrated hereunder.

$$Y = \beta_0 + \beta_1 X_1 + \epsilon$$

$$Y = 2.537 + 0.312 X_1$$

It was revealed that in order for financial sustainability of matatu Saccos to increase by one unit, the management of these Saccos ought to ensure that they effect 0.312 unit change in cash management while holding other factors which were not part of this study constant ($\beta_0 = 2.537$).

Testing Null Hypothesis (H₀)

The null hypothesis was tested at 95% confidence level which is equivalent to 0.05 significant level (p-value = 0.05). The results of t-statistics shown in Table 8 were employed to test the hypothesis.

The null hypothesis (H₀) stated that: There is no statistically significant effect of cash management on financial sustainability of Saccos in the matatu industry in Nakuru County. The results of t-statistics (t = 3.250; p < 0.05) indicated that the effect of cash management on financial sustainability was statistically significant. The results, therefore, led to the rejection of the null hypothesis and the alternate hypothesis (H_A) was considered to be true.

DISCUSSION

The correlational results were interpreted to mean as cash management was enhanced, financial sustainability of matatu Saccos improved moderately, and the reverse was equally true. In order to be more financially sustainable, the aforesaid Saccos had to improve their cash management strategies. The results of this study were similar to the findings of a previous study conducted by Amit (2014). The latter study had found that cash management is considered to be fundamental for survival of every business enterprise. Moreover, the present study results concurred to Aren and Sibindi’s (2014) observation that cash flow management was very important to the survival of small businesses. The results of the regression analysis underpinned the importance of cash management in order to ensure financial sustainability of matatu Saccos. In this regard, it is imperative for the aforementioned Saccos to ensure that they have in place sound cash management strategies.

CONCLUSIONS AND RECOMMENDATIONS

The study concluded that matatu Saccos operating in Nakuru County have adequate cash, and also the capacity to strike a balance between cash availability and profitability. However, it was

inferred that cash balances of the Saccos have reduced in the recent years. The study also concluded that cash management is essential in ensuring that matatu Saccos are financially sustainable.

Relative to cash management and financial sustainability, the study recommended that Saccos ought to ensure they have sufficient cash to address all their expenditure. In the same breadth, it is advisable for Sacco management to ensure that there is sustainable liquidity level in their respective Saccos. However, it is recommended that the management should balance the cash management levels with the frequent needs of the Saccos

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