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INFLUENCE OF ENVIRONMENTAL SCANNING ON PERFORMANCE OF MATATU SAVINGS AND CREDIT COOPERATIVES IN KENYA

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#### INFLUENCE OF ENVIRONMENTAL SCANNING ON PERFORMANCE OF MATATU SAVINGS AND CREDIT COOPERATIVES IN KENYA

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#### Abstract

**Purpose:** This study aimed at determining the influence of environmental scanning on performance of Matatu Savings and Credit Cooperatives in Kenya.

**Materials and methods:** This study adopted cross-sectional survey research design. The target population for this study was all Matatu Saccos in Kenya. The questionnaire was pilot tested to determine its validity and reliability. The study used primary data gathered from Matatu savings and credit co-operatives from the Ministry of Industrialization and Enterprise Development. Primary data was obtained through use of structured and semi structured questionnaire. A total of 635 Matatu Saccos was selected. Sample size of 245 Matatu Saccos was selected for the study. Quantitative data was analyzed by multiple regressions, Factor analysis, Chi-square and Anova. Qualitative data was analyzed through content analysis to generate thematic topic for discussion in line with research objective

**Results:** The results of the analysis indicated that environmental scanning has a positive relationship with performance of Matatu Saccos. The extent of environmental scanning was found to have a 0.113 influence on performance of Matatu Saccos which was relatively low but significant.

**Recommendations:** The government should ensure that Matatu Saccos conduct SWOTanalysis to evaluate internal and external environment which affect performance. In addition Saccos should do strategic plan in line with vision and mission.

**Keywords**: Environmental scanning, performance, Matatu Savings and Credit Cooperatives in Kenya.



#### **1.0 INTRODUCTION**

#### **1.1 Background to the Study**

Co-operatives are user owned and user benefited organizations that could be agricultural, nonagricultural, unions or savings and credit co-operatives (SACCOs) which operate in different sectors of the economy including agricultural, handicraft, juakali, transport, housing and development, building and construction, consumer services, banking and finance (Gamba & Komo, 2010). Co-operatives are being considered useful mechanisms to manage risk for members in agricultural or other similar co-operatives that help salary/wages earners save for the future through a soft felt monthly contribution that is deducted from source, own what might be difficult for individuals to own by their efforts, strengthen the communities in which they operate thorough job provision and payment of local taxes.

The contribution of co-operatives to the GDP is estimated to be 45% while for the national savings and deposits, the contribution is Ksh 3/per cent (Chamb, 2008). The share of the Transport sector in the GDP was 8.5% for the period 1998 to 2002 with the road transport subsector accounting for 2.9% of the GDP (IPAR, 2004). The Transport sector constitutes 80% of the public transport system in the country and was estimated to have an annual turnover of 73 billion. The sector contributes 4 billion to insurance companies and 1 billion in taxes every year (Republic of Kenya, 2011). According to the Ministry of Co-operatives Development and marketing, it was estimated that there are around 25,000 public service vehicles operating in the country. After the government issued a legal notice requiring all the public service vehicles to join Saccos or limited liability companies by December 2010, over 445 Matatu Saccos have been registered with the Ministry of Co-operatives Development and Marketing by March 2011(MCDM, 2011).

#### **1.2 Matatu Saccos in Kenya**

To bring sanity to public transport, Matatu and bus operators have to organize themselves into Saccos or companies for ease of management and enforcement of discipline. According to NTSA (2015) 635 Matatu Saccos and companies have been registered. Matatu Saccos contribute ksh 4 billion insurance premiums every year and ksh 1billion taxes annually. Matatu Saccos have played a significant role in the growth of public transport. Saccos are proved to be the most viable way of managing large public transport fleets and pioneers in changing the image of public transport which was dominated by rogue drivers and touts who did not follow traffic rules.Public service vehicles (PSV) in Kenya operate in major towns as well as in rural areas. Matatu Saccos in national development has been observed. It is important for managers, scholars and policy makers to know from empirical research, how strategic planning process affects performance.

#### **1.3 Statement of the Problem**

The Matatu sector in Kenya is a key driver of the economy that keeps recording significant positive contributions and growth. The sector is an employer of thousands of Kenyans who would otherwise



be unemployed. The sector is hugely responsible for the flexible movement of Kenyan workers and the general public as they go about their daily activities in an effort to contribute to nation building. In terms of absolute figures, the sector contributed about 3% to the country's GDP in 2008, 3.5% in 2009 and 5.9% in 2010. The Sacco movement within the Matatu sector was introduced in 2010 and since then, the sector has witnessed decrease in growth. In 2011, the sector generated a GDP of 5.0%, 4.7% in 2012, 4.5% in 2013 and 4.2% in 2014 (KNBS, 2014). According to the economic survey report of 2015, this statistical analysis shows a trend of a decrease in growth in the sector between 2010 and 2014 in the economy. This study seeks to find out causes of decline in performance since introduction of Matatu Saccos in Kenya.

Aldehayyat and Twaissi (2011) indicate that little attention has been given to the study of strategic planning process in small businesses in the developing countries. Small businesses do not have the means to ensure continuous implementation of strategic planning process. Adegbie and Fakile (2013) investigated strategic planning process and performance: catalyst for sustainability and stability in the Nigerian financial sector using multivariate analysis of variance (MANOVA) model. The findings from the empirical study revealed that strategic planning process was not properly instituted. Oloo (2012) also investigated the challenges of strategy implementation in Public Corporations inKenya. The study adopted a descriptive research design in which 189respondents were sampled using census survey. The study targeted the personnel in charge of planning in the organizations. The study established that staff resistance to change and lack of skills to some extent affected the implementation of strategies by the organizations.

Alaka, Abass and Tijiani (2011) conducted a study on impact of strategic planning process on the performance of insurance companies in Nigeria using Analysis of Variance (ANOVA) technique. Their findings showed that strategic planning process enhances customer patronage and reduces unethical practices in Nigeria insurance industry, thus indicating that strategic planning process can prepare companies irrespective of sectors for the future, establish long term goals and direction and indicate the company's intent to stake out a particular business position. The previous studies on strategic planning process and performance have focused on banks and Saccos but no study has been done on influence of strategic planning process on performance of Matatu Saccos. This study seeks to fill the gap in the literature by focusing on the influence of environmental scanning on performance of Matatu Savings and Credit Cooperatives in Kenya. The previous studies adopted descriptive research design but this study will focus on cross sectional survey design.

#### 1.4 Objective of the Study

To determine the influence of environmental scanning on performance of Matatu Savings and Credit Cooperatives in Kenya



#### 2.0 LITERATURE REVIEW

#### **2.2 Theoretical Review**

#### **2.2.1 Contingency Theory**

Galbraith (1973) states that in contingency theory ,there is no best way to organize and any one way of organizing is not equally effective .Chandler (1962) studied four large corporations and proposed that organizations would naturally evolve to meet the needs of their strategies. Implicit in Chandler's ideas is that organizations act rationally, sequentially and in a linear manner to changes in the environment and that effectiveness was a function of management's ability to adapt to environmental changes. Contingency theory is guided by the general orienting hypothesis that organizations whose internal features best match the demands of their environments will achieve the best adaption.

The term "contingency" was coined by Lawrence and Lorsch (1967) who argued that the amount of uncertainty and rate of change in an environment impacts the development of internal features in organizations. The rate of change and uncertainty in the environment questions the applications of this theory and especially for small businesses, which may not have the resources and the time to make the changes and adapt to the fast paced environment. Similarly, it is argued that failures in one sub-system will not necessary affect the entire system. This theory is very important in pointing out the critical role of the environment in an organization's survival and that it cannot be ignored even by a small enterprise. The environment is an important component in strategic planning process of Matatu Saccos to enhance performance .The above contingency theory informed the choice of environmental scanning as the second variable.

#### 2.3 Conceptual Framework

This study was guided by conceptual framework. The variables to be considered when studying influence of environmental scanning on the performance of Matatu Saccos in Kenya are; Inflation rate, interest rate, credit accessibility and unemployment. Dependent variable (performance) was measured by capital adequacy, assets quality and liquidity.

Independent Variables	Dependent Variable
Environmental Scanning	Performance of Matatu Saccos
<ul> <li>Inflation rate</li> <li>Interest rate</li> <li>Credit accessibility</li> <li>Unemployment</li> </ul>	<ul> <li>Capital adequacy</li> <li>Assets quality</li> <li>Liquidity</li> </ul>



#### Figure 1: Conceptual Framework

#### 2.4 Empirical Literature Review

#### **2.4.1Environmental Scanning**

Saadeghvazir, Khaef, Motaqi and Estahani (2012) did a study to understand relationship between environmental scanning and performance. A total of 82 CEOS of automobile parts of manufacturing companies inIran participated in the survey. The study showed that scanning competitor's environment was the major and only factor that influences the performance and not the scanning of economic, political, legal, socio-cultural, and technological and supplier's environments. The study concluded that Iranian parts manufacturing companies can focus deeply on competitor's environment to improve their performance, instead of gathering excessive information. This would increase the competitive power of the company in the global market. Also it should be kept in mind that too much information gathered from the environment mayconfuse the company and may act as a threat.

Aluko (2005) carried out a study to examine the impacts of the environment on the organization performance in selected textile firms in Nigeria. The main objective of the study was to identify the impact of four environmental variables; the economy, socio-cultural, political and technological, to determine which of the four variables had strongest impact on organizational performance. In total 630 respondents were used for study. The study showed that the organization under focus was not performing very well because they appeared to be operating in an unfavourable economic and technological environment in the period between 1993 and 1998. Only the socio-cultural environment appeared to be favorable but this did not help to enhance organizational performance. The study concluded that the environment positively influenced the firm's performance.

Rintari and Makori (2012) conducted a study seeking to investigate the role of strategic planning practices on the organizational performance of public institutions in Kenya with emphasis on the public service commission of Kenya. They identified environmental scanning together three other variables against which were to evaluate their influence on the performance of public service commission of Kenya. The study concluded that there was positive relationship between environmental scanning and organizational performance. The most common environmental scanning tools in the organization included scenario building PEST analysis and SWOT analysis .The study established that environmental scanning leads to faster reaction times. Environmental scanning leads to higher growth rates , enhances firm's knowledge base and their effective planning and provides a company with more accurate market and industry insights and hence more likely to satisfy current customers .

Using the likert scale to determine the extent of the impact, the findings revealed that the Matatu Saccos have formulated response strategies for the micro turbulent environment and that route management, passenger services and granting of business loans were top three strategies adopted. Further findings showed that customer satisfaction, quality services and branding had strong positive impact on performance of Matatu Saccos. The null hypothesis to be tested was:



### H<sub>02</sub>: Environmental scanning had no influence on performance of Matatu Savings and Credit Cooperatives in Kenya.

#### 2.4.2 Performance of Matatu Saccos

Mohammad, Ridwan,John (2012)did a study on Strategic Planning process on Organizational Performance in the Regional Government Owned Banks in Indonesia. The purpose of the study was to investigate the link between strategic planning process and organizational performance in the regional government owned banks in Indonesia. The main objective was; to determine the link between strategic planning process and performance. This study employed a qualitative research method for a framework in this study.

The other findings revealed that by creating a sharp link between goals, plans and resources during strategic planning process, the organization would much better select action plans based on their advantage,cost and return on investment(ROI) and access the attractiveness of numerous strategies versus the cost of their achievement .Environmental scanning revealed that the constant scanning of the external environment of the three banks was crucial for the effective strategic planning decision making hence positively influences performance.

Anamel et.al (2012) examined liquidity risk management practices of Islamic Banks of Brunei Darussalam from two perspectives. The first part covered the issue related to understanding risk, risk assessment and analysis, risk identification, risk monitoring, credit analysis and risk management practices .The second part covered the methods of risk identification in addition to risks faced by the Islamic banks. The study revealed that there are three significant types of risks that face the Islamic banks in Brunei Darussalam. The first type of risk is foreign exchange risks and the second type is credit risk and finally the operation risk.The most important methods used in risk identification of Islamic bankers, the results revealed that inspection by Sharia's supervisors', executive and supervisory staff; audit and physical inspection; financial statement analysis; and risk survey are the most significant factors of risk identification and positively affect performance.

#### **3.0 METHODOLOGY**

This study adopted a mixed design approach using quantitative cross-sectional survey including causal and descriptive research designs. The target population was 635 registered Matatu Saccos according to (NTSA,2015). Random sampling was adopted as it is advantageous for objectivity.

Given that the population size of 635 is finite, the study adopted sampling techniques for finite population to determine the sample size. Slonim (1960) provided a formula to use in determining the sample size for a finite population given by;

$$n = \frac{N}{1 + Ne^2}$$

Where;

N is the population size



e is the marginal error

n is the sample size

The formula has also been proposed by Anderson, Sweeney and Williams (2004) and has also been adopted by researchers such as Wachiuri (2015). From the sample size calculations, the study randomly selected 245 respondents from the population of 635.

The sample for the study was therefore obtained as follows;

$$n = \frac{N}{1 + Ne^2}$$

Taking a marginal error of 0.05 and the population of 635,

$$n = \frac{635}{1 + 635 \times 0.05^2}$$

n = 245

Primary data was required to gain deeper insight and a better interpretation of the quantitative data. The researcher used a questionnaire for this. In this study, quantitative data was coded and analyzed, while content coding was used in coding the qualitative data. Statistical techniques such as measures of central tendency, dispersion, symmetry and inferential statistics were used to analyze the data. In descriptive analysis, the raw data of the indicators was analyzed and presented in frequency tables and graphs for all the variables depending on the nature of the categorical data of the indicator.

#### 4.0 RESEARCH FINDINGS AND DISCUSSIONS

#### 4.1 Response Rate

The study was conducted in Kenya, and targeted a population of 635 Matatu Saccos registered by NTSA. Given the population size, the study was conducted considering a sample size of245registered Matatu Saccos. Out of these 245 Saccos, 199 responded, translating to an overall response rate of 81.22%% (See Table 1).Mugenda (2008) suggests that a response rate of 60% is good and 70% and above is very good implying that the response rate of 81.22% of this study was adequate.

Table 1: Response rate	
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Sampled	Responded	Response rate (%)
245	199	81.224%

The high response rate implied reliability of the data collected and could be generalized to determine the influence of Strategic Planning Processon performance of Matatu Saccos in Kenya. This was in line with Orodho (2009) who stated that a response rate above 50% contributes towards gathering of sufficient data that can be generalized to represent the opinions of respondents about the study problem in the target population.



#### 4.2 Missing Data Analysis

Mugenda (2008) and Tabachnick & Fidell (2007) state that, missing data is one of the most common problems in data analysis process. As expected when collecting data, some respondents adamantly refuse to respond to some questions.

Missing Response	Respondents	Percentage	Cumulative Percentage	Action
2%	192	96%	96%	Retained
5%	4	2%	98%	Retained
7%	2	1%	99%	Retained
14%	1	1%	100%	Deleted

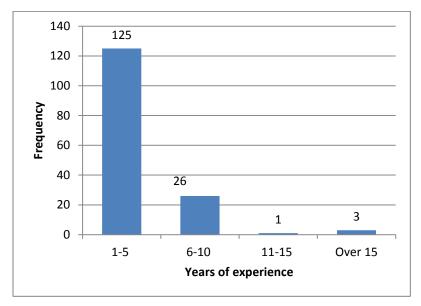
 Table 2: Missing data analysis

The table 2 shows the percentage of responses that were missing in any random variable. There are no agreed principles of what constitute large amount of missing data. However, researchers suggested that less than 10% of missing data on a particular variable or response is not large and does not constitute a large amount of missing data (Cohen & Cohen, West & Aiken, 2003). Those respondents that had more than 10% missing responses in any of the whole questions asked were candidates for deletion. Only 1 respondent was deleted who had more than 10% of the response missing and the overall sample was reduced from 199 to 198. Tabachnick and Fidell (2007) suggests that cases that have less than 10% missing responses could be allowed for further analysis subject to dealing with missing responses empirically. The study examined the missing responses and concluded that they were independent and missing completely at random. With this in mind, the study did impute for the missing values by replacing it using median as one element of measures of central tendency (Yohai, Stahel & Zamar, 1991).

#### **4.2 Demographic Information**

The background information of the Sacco was analysed and reported in graphs. The respondents were asked to state their years of experience with the Saccos. As presented in figure 2 below, majority (125) of the respondents had only 1 to 5 years of experience. 26 of the respondents had 6 to 10 years of experience. Only one respondent had between 11 to 15 years of experience and 3 of the respondents had over 15 years of experience. This indicates that most of the employees in the Matatu Saccos studied in Kenya have 1-5 years of experience working in Matatu Saccos.



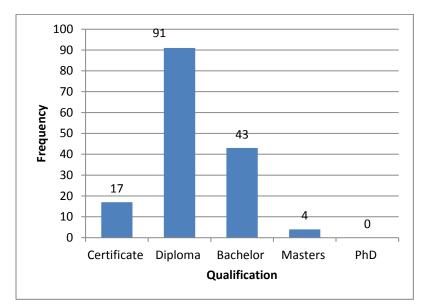


#### Figure 2: Years of experience

Studies (Heide, Gronhaug & Johannessen, 2002) support these view and point out that many strategies fail because adequate resources were not decisively allocated at the beginning in line with the requirements of a new strategic direction. This was because allocation of resources was an essential part of strategy implementation. Without sufficient resources an organization may find it difficult to implement the strategy. Examples of these resources are finances, material, human resource, skills and knowledge. The study concluded that adequate resource allocation positively influences performance. Mankins and Steele (2005) observed that companies typically realize only about 60 percent of their strategies potential Value because of defects and breakdown in planning and execution. Herold (1992) surveyed 10 companies comparing performance of formal and informal planners over a seven year period. He concluded that formal planners outperform informal planners outperform and House. They concluded that formal strategic planners positively affect performance.

The respondents were also asked on highest level of education by Sacco employees. Majority (91) of the Saccos have employees with up to diploma level of education. There are 17 Saccos with employees with only up to certificate level of education. There are also 43 Saccos with employees who hold bachelor's degrees and 4 Saccos with masters' holders as employees. None of the Saccos had PhD holders as employees. The results to this item were presented in figure 4.2. This indicates that most of the Matatu Saccos studied in Kenya have attained bachelor's degree and diploma levels of education. The Matatu sector has four employees with masters and no employee with PhD. This explains why they did not require highest qualifications because most Matatu owners are not well educated to understand the need to employee workers with higher qualifications to help in implementation of strategic planning processes in Matatu Saccos in Kenya.





#### Figure 3: Highest academic qualification

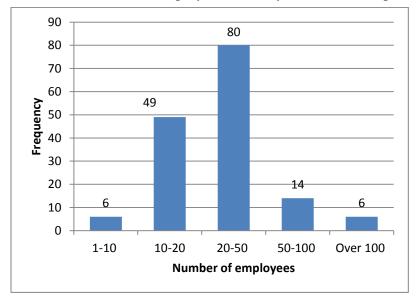
Odhiambo (2006) carried out a study on challenges of strategic plan implementation on Non-Governmental Organizations in Kenya. The study observed that most Non –Governmental Organizations are faced with challenges during strategic plan implementation which included; employee motivation, resources allocation, communication and introduction of change. In Kenya reforms have attempted to improve private sector development. They are aimed at changing the perception about government from being viewed as an obstacle to development which must be removed. Accountability in the use of public resources and efficiency in service delivery. To improve performance, corporate governance and management in public service was through performance contracts. The study concluded that performance contracting together with employee's motivation, resource allocation and communication strongly influences performance.

KIPPRA (2013) conducted a study on Factors influencing Organizational Strategy Implementation clearly indicating that organizations failed to achieve their objectives in the long run due to improper planning .However, from the findings of previous studies little has been done on factors affecting the implementation of strategic plan. Mawanda (2008) conducted a study to establish the effects of internal control systems on financial performance in an institution of higher learning in Uganda while Jones (2008) compared internal control accountability and corporate governancein Medieval and modern Britain. The studies aimed at establishing if there exist a link between the effectiveness of internal control and the financial performance of an institution and also seek to establish the duration of time that internal control has been in existence.

Mawanda carried out a study in Uganda's institutions of higher learning and did a case study on Uganda Martyrs University during the year 2008 and concluded that there was a significant positive relationship between internal control systems comprising of control environment, internal audit and control activities one hand and financial performance as measured by liquidity,



accountability and reporting on the other hand. The researcher was of view that Matatu Saccos do not need highly qualified employees with PHD and masters since most work done was clerical suitable for mostly certificate and diploma holders. Regarding number of employees in the Saccos, the results were presented in figure 4.3.Majority (80) Saccos had 20 to 50 employees while only 6 Saccos had1 to 10 employees. There were 49 Saccos with 10 to 20 employees, 14 Saccos with 50 to 100 employees and only 6 Saccos had up to over 100 employees.



#### **Figure 4: Number of employees**

A study conducted by Konzo(2012) in Tanzania on the Relationship between Strategic plan Implementation and Performance of manufacturing firms clearly indicated that strategic plan implementation was a determinant of any successful organization and was realized by organizational culture and determination by all employees. Strategic implementation strongly has positive influence on performance.

Oloo (2012) also investigated the challenges of strategy implementation in Public Corporations inKenya. The objectives of the study were to establish the challenges in strategy implementation in public corporation and the possible solutions to the challenges. The study adopted a descriptive research design in which 189respondents were sampled using census survey. The study targeted the personnel in charge of planning in the organizations. The study established that staff resistance to change and lack of skills to some extent affected the implementation of strategies by the organizations.

Njeha and Mwangi (2010) conducted a study on the effects of enterprise resource planning systems on firm's performance .A survey of commercial banks in Kenya. The study had five objectives of finding out how the financial resource availability, organizational complexities, employees' perceptions, regulatory requirements and having a top management support affects the effective implementation of ERP systems which in turn will affect the firm' performance.



The research adopted a descriptive design employing the use of mainly questionnaires as the primary data collection tool. The researcher was of view that the lower the number of employees the higher the performance since it reduces on wage bill and maximize returns in profit generated.

#### **4.3 Environmental Scanning**

Environmental scanning was the study variable used in formulation of the study's specific objective. The items used to measure environmental scanning were analysed and presented in a frequency table 3.

	Stable	Slow	Moderate	Rapid	Very rapid	Mode
Inflation rate	34%	0%	65%	0%	1%	3
Interest rate	34%	1%	64%	1%	0%	3
Credit accessibility	72%	1%	25%	1%	1%	1
Unemployment rate	19%	5%	57%	8%	11%	3

#### **Table 3 Environmental Scanning**

Inflation rate was also a factor relating to the business environment and 34% of the respondents believe that the inflation rate was stable and not just slow. None of the respondents believe that the inflation rate was rapid while 1% of the respondents believe that it was.65% of the respondents, which was the majority, however believe that it was moderate as also implied by the modal class which was found to be 3. The mode of 3 implies that on average, the Matatu Saccos in Kenya believe that the inflation rate was stable while 1% believes its just slow. On the other hand, a small number (1%) believe that the interest rate was rapid and none of the respondents believe that it was moderate as also implied by the modal class which was found to be 3. The mode of 3 implies that on average, the Matatu Saccos in Kenya believe that the interest rate was stable while 1% believes its just slow. On the other hand, a small number (1%) believe that the interest rate was rapid and none of the respondents believe that it was moderate as also implied by the modal class which was found to be 3. The mode of 3 implies that on average, the Matatu Saccos in Kenya believe that the interest rate was rapid and none of the respondents believe that it was moderate as also implied by the modal class which was found to be 3. The mode of 3 implies that on average, the Matatu Saccos in Kenya believe that the interest rate was moderate.

With regards to credit accessibility, a significant majority (72%) of the respondents believe that the credit accessibility was stable while 1% believes its just slow. 25% of the respondents however, believe that it was moderate. Majority (72%) of the respondents believe that the credit accessibility was stable as also implied by the modal class which was found to be 1.Unemployment was also a factor for consideration and 19% of the respondents believe that the unemployment rate was stable while 5% believe it's just slow. Consequently, 19% believe that the unemployment rate was rapid. 57% of the respondents however believe that it was moderate. Majority (57%) of the respondents believe that the unemployment rate was found to be 3.



This concurs with Aduda (2013) that strategic responses to the dynamic environment by Matatu Saccos in Kenya focused on legal, economic and technological environments positively influenced performance of Matatu Saccos. The inflation rate and interest rate are measure of economic environment which was moderate and positively influenced performance of Matatu Saccos in Kenya. Gasset (2010) dida study on producer-specific environmental factors influence on performance of Irish Credit Unions. The study concurs that there was positive relationship between environmental factors and performance of Irish Credit Unions. Aluko (2005 concurs that environmental variables such as economy, socio-cultural, political and technological positively influenced firm performance. Rintari and Makori (2012) conducted a study seeking to investigate the role of strategic planning practices on the organizational performance of public institutions in Kenya with emphasis on the public service commission of Kenya. The study concluded that there was a positive relationship between environmental scanning and organizational performance.

Babatunde and Adebisi (2012) did an empirical study on relation between environmental scanning and organizational performance. The data was collected by means of questionnaire administered on the management staff of Nestle Nigeria plc and Cadbury Nigeriaplc. Findings revealed that 30% of the variation or change in effective environmental scanning arising from factors under study. The researcher was of view that an economic factor such as inflation and interest rate strongly influenced performance of Matatu Saccos in Kenya.

#### 4.4 Performance

Performance of the Matatu Saccos in Kenya was the dependent variable of the study. The variable was measured by various indicators considering capital adequacy, asset quality and liquidity of the Saccos. The items under capital adequacy of the Saccos were measured analysed and presented in table 4.

	Strongly disagree	disagree	Moderately agree	Agree	Strongly agree	Mode
Capital adequacy is a challenge	1%	3%	8%	60%	28%	4
Retained earnings improv	ve		17%	49%	34%	4
Have enough funds to recruit	1%	6%	33%	49%	11%	4
Member savings have imp	proved		29%	58%	13%	4
Sufficient funds for withdrawals	1%	6%	19%	57%	16%	4

#### **Table 4: Capital Adequacy**



On matters of capital adequacy, only 4% of the respondents did not think that capital adequacy was a challenge to their Saccos. On the other hand, 60% agreed that capital adequacy was a challenge to their Saccos and 28% of the respondents strongly agreed. A few however seemed not to be sure of the capital adequacy of their Sacco. Majority (60%) of the respondents were in agreement as also implied by the modal class which was found to be 4. The mode of 4 implies that on average, the Matatu Saccos in Kenya agreed that capital adequacy was a challenge to their Sacco.

Majority of the respondents (49%) agreed that retained earnings help improve their Sacco wealth and 34% of them strongly agreed with the statement. 17% of the respondents however moderately agreed with the question. Seeing that majority of the respondents was in agreement, the mode was found to be 4. The mode of 4 implies that on average, the Matatu Saccos in Kenya agreed that retained earnings improved their Sacco wealth. A few of the respondents (7%) thought that the Saccos did not have enough funds to recruit qualified personnel. On the other hand, 60% agreed that their Sacco had enough funds to recruit qualified and competent employees. 33% of the respondents however, moderately agreed with the question. Majority of the respondents were in agreement as also implied by the modal class which was found to be 4.

Critically analysing the value and impact of people's contributions,58% agreed that members savings have improved their Saccos wealth and 13% of the respondents strongly agreed with the statement. 29% of the respondents however moderately agreed with the question. Majority (58%) of the respondents were in agreement as also implied by the modal class which was found to be 4.7% of the respondents generally though that their Sacco had no sufficient funds for members withdrawals. On the other hand, 57% agreed that their Sacco had sufficient funds for members' withdrawals and 16% of the respondents strongly agreed with the statement. 19% of the respondents however were not certain. Majority (57%) of the respondents were in agreement as also implied by the modal class which was found to be 4.0ther items measured performance of the Saccos was considered under asset quality of the Saccos. The analysis results of the items under asset quality were presented in table 5.

	0%-20%	21%-40%	41%-60%	61%-80%	81%-100%	Mode
Loan defaults control	10%	7%	76%	6%	1%	3
Gross income of Sacco	1%	3%	5%	9%	83%	5
Share capital of Sacco	8%	33%		56%	3%	5
Rate of dividend	2%	40%	52%	6%	0%	3
Loan issued	3%	8%	36%	53%	0%	4

#### **Table 5: Asset Quality**



10% of the respondents believed that the proportion to which the loan default control of their Sacco affected performance ranged within 0%-20% while 7% believed that it ranges within 21%-40%. On the other hand, 76% believed that the proportion to which the loan default control of their Sacco affected performance ranged within 41%-60% and 6% of the respondents believed that it ranges within 81%-100%. Majority (76%) of the respondents believed that the proportion to which the loan default control of their Sacco affected performance ranged within 41%-60% as was also implied by the modal class which was found to be 3. The mode of 3 implies that on average, the Matatu Saccos in Kenya believed that the proportion to which the loan default control of theirSaccos affected performance ranged within 41%-60%.

Gross income goes hand in hand with performance. 1% of the respondents believed that the proportion to which the gross income of their Saccos affects performance ranged within 0%-20% while 3% believed that it ranged within 21%-40%. On the other hand, 5% believed that the proportion to which the gross income of their Sacco affected performance ranged within 41%-60% and 9% of the respondents believed that it ranged within 61%-80%. 83% of the respondents however believed that it ranged within 81%-100%. Majority (83%) of the respondents believed that the proportion to which thegross income of their Sacco affected performance ranged within 81%-100%. Majority (83%) of the respondents believed that the proportion to which thegross income of their Sacco affected performance ranged within 81%-100% as also implied by the modal class which was found to be 5.

8% of the respondents believed that the proportion to which their Saccos share capital affected performance ranged within 0%-20% while 33% believed that it ranged within 21%-40%. On the other hand, 0% believed that the proportion to which their Saccos share capital affected performance ranged within 41%-60% and 56% of the respondents believed that it ranged within 81%-100%. Majority (56%) of the respondents believed that the proportion to which their Saccos share capital affected performance ranged within 81%-100% as implied by the modal class which was found to be 5. 2% of the respondents believed that the proportion to which the rate of dividends in their Saccos affected performance ranged within 0%-20% while 40% believed that it ranged within 21%-40%. Consequently, 52% believed that the proportion to which the rate of dividends in their Saccos affected performance ranged within 41%-60% and 6% of the respondents believed that it ranged within 21%-40%. Consequently, 52% believed that the proportion to which the rate of dividends in their Saccos affected performance ranged within 41%-60% and 6% of the respondents believed that it ranged within 51%-80%.

Majority (52%) of the respondents believed that the proportion to which the rate of dividends in their Sacco affected performance ranged within 41%-60% as was also implied by the modal class which was found to be 3.Loans affected the performance of lending institution .3% of the respondents believed that the proportion to which loans issued `by their Sacco affected performance ranged within 0%-20% while 8% believed that it ranged within 21%-40%. On the other hand, 36% believed that the proportion to which loans issued `by their Sacco affected performance ranged within 41%-60% and 53% of the respondents believed that it ranged within 61%-80%. Majority (53%) of the respondents believed that the proportion to which loans issued `by their Sacco affected performance ranged within 61%-80% as was also implied by the modal class which was found to be 4. According to a study done in KIFI SACCO (Kibaigwa Financial Services and Credit Co-operatives) in Tanzania in 2011 it was observed that management



leniency on loan follow ups seemed to have been going for some time. The study concluded that failure to repay loan negatively affected performance. Anamel *et.al* (2012) examined liquidity risk management practices of Islamic Banks of Brunei Darussalam from two perspectives. The most important methods used in risk identification of Islamic bankers, the results revealed that inspection by Sharia's supervisors', executive and supervisory staff; audit and physical inspection; financial statement analysis; and risk survey are the most significant factors of risk identification and positively affected performance. The study concluded that liquidity risk management practices positively influenced performance. Liquidity of the Matatu Saccos was also considered when measuring performance of the Saccos.

	0%- 20%	21%- 40%	41%- 60%	61%- 80%	81%- 100%	Mode
Cash at bank	1%	10%	46%	14%	28%	3
Cash at hand	8%	14%	26%	9%	43%	5
Assets owned	1%	12%	75%	11%	0%	3
Amount of money in savings	1%	15%	72%	12%	0%	3
Trading on securities	58%	39%	3%	1%	0%	1

#### **Table 6: Liquidity**

Liquidity affected financial performance too. A very minimal (1%) of the respondents believed that the proportion to which the cash at bank in their Saccos affected performance ranged within 0%-20% while 10% believed that it ranged within 21%-40%. On the other hand, 46% believed that the proportion to which the cash at bank in their Saccos affected performance ranged within 41%-60% and 14% of the respondents believed that it ranged within 61%-80%. 28% of the respondents however believed that it ranged within 81%-100%. Majority (46%) of the respondents believed that the proportion to which the cash at bank in their Saccos affected performance ranged within 41%-60% as was also implied by the modal class which was found to be 3. 8% of the respondents believed that the proportion to which the cash at hand in their Saccos affected performance ranged within 0%-20% while 14% believed that it ranged within 21%-40%. On the other hand, 26% believed that the proportion to which the cash at hand in their Saccos affected performance ranged within 41%-60% and 9% of the respondents believed that it ranged within 61%-80%. 43% of the respondents however believed that it ranged within 81%-100%. Majority (43%) of the respondents believed that the proportion to which the cash at hand in their Saccos affected performance ranged within 81%-100% as was also implied by the modal class which was found to be 5. Ownership of assets by the Saccos seemed to be a big



performance indicator.1% of the respondents believed that the proportion to which the assets owned by your Sacco affected performance ranged within 0%-20% while 12% believed that it ranged within 21%-40%. On the other hand, 75% believed that the proportion to which the assets owned by your Saccos affected performance ranged within 41%-60% and 11% of the respondents believed that it ranged within 61%-80%. Majority (75%) of the respondents believed that the proportion to which the assets owned by your Sacco affected performance ranged within 41%-60% as was also implied by the modal class which was found to be 3. Amount of money in savings proved to be a great performance indicator too.1% of the respondents believed that the proportion to which the amount of money in saving in their Sacco affected performance ranged within 0%-20% while 15% believed that it ranged within 21%-40%. On the other hand, 72% believed that the proportion to which the amount of money in saving in their Sacco affected performance ranged within 0%-20% while 15% believed that it ranged within 21%-40%. On the other hand, 72% believed that the proportion to which the amount of money in saving in their Sacco affected performance ranged within 0%-20% while 15% believed that it ranged within 21%-40%. On the other hand, 72% believed that the proportion to which the amount of money in saving in their Sacco affected performance ranged within 61%-80%.

None of the respondents however believed that it ranged within 81%-100%. Majority (72%) of the respondents believed that the proportion to which the amount of money in saving in their Sacco affected performance ranged within 41%-60% as was also implied by the modal class which was found to be 3. 58% of the respondents believed that the proportion to which the trading on securities of their Sacco affected performance ranged within 0%-20% while 39% believed that it ranged within 21%-40%. On the other hand, 3% believed that the proportion to which the trading on securities of their Sacco affected performance ranged within 41%-60% and 1% of the respondents believed that it ranges within 61%-80%. Majority (58%) of the respondents believed that the proportion to which the trading on securities of their Sacco affected performance ranged within 0%-20% as was also implied by the modal class which was found to be 1. Mohammad, Ridwan and John (2012) concurs that strategic planning process leads to performance such as growth of assets and return on investment. Mwaura (2014) concurs that operating strategies and regulatory compliance enhances performance in the Matatu sector. There was need to enhance compliance by promoting co-operation between Matatu owners and government in streaming regulators and ensuring fair and consistent enforcement recognizing that Matatu are legitimate transport businesses rendering a public service.

Jaffar and Monarvi (2011) assed the performance of Islamic and conventional banks in Pakistan through CAMEL tests during period of 2005 to 2009. The sample of their research was five Islamic and five conventional bank. They found that Islamic banks performed better and had high liquidity than the conventional banks. Besides, it is understood that conventional banks have pioneered in the management and having a good earning ability. Narazi and Evans (2005) carried out a study whether CAMEL ratios could be used to predict bank failure in Indonesia. The results suggested that adequacy ratio, assets quality, management, earnings, liquidity and bank size are statistically significant in explaining bank failure. Anamel *et.al* (2012) examined liquidity risk management practices of Islamic Banks of Brunei Darussalam from two perspectives. The study concluded that liquidity risk management practices positively influenced performance.



#### 4.5 Inferential Analysis

Unlike descriptive statistics, inferential statistics enabled a researcher to make conclusions (inferences) about a given population of study. The factor analysis results yielded scores that were used to compute total scores of the variables from the items measured in the questionnaire. The data yielded from the factor analysis results was used in the inferential stage of analysis. The inferential analysis was aimed at drawing conclusions on the objectives of the study. The inferential analysis included bivariate analyses between each independent variable and the dependent variable performance and a resulting multivariate analysis that considered the combined influence of the strategic planning process on performance of the Matatu Saccos.

#### 4.5.1 Environmental Scanning and Performance

A model was also fitted for environmental scanning and performance. Table 4.18 presents the results of the relationship and explanatory power of the bivariate regression analysis.

R	R Square	Adjusted R Square	Std. Error of the Estimate
<b>.</b> 240ª	0.0695	0.062	0.97399

 Table 7 Model summary for Environmental Scanning and Performance

The R value of 0.24 shows a positive linear relationship between environmental scanning and performance. The coefficient of determination, the R<sup>2</sup> was found to be 0.069. The R<sup>2</sup> shows the explanatory power of the independent variables in the model. The results show that 6.95% of the variation in performance was explained by the variation of the variable environmental scanning in the model  $Y = \beta_0 + \beta_1 X_1$ . The remaining 93.05% of the variation in the dependent variable unexplained by this one predictor model but by other factors.

This concurs with Aduda (2013) that strategic responses to the dynamic environment by Matatu Saccos in Kenya focused on legal, economic and technological environments positively influenced performance of Matatu Saccos. The inflation rate and interest rate are measure of economic environment which was moderate and positively influenced performance of Matatu Saccos in Kenya. Gasset (2010) did study on producer-specific environmental factors influence on performance of Irish Credit Unions. The study concurs that there was positive relationship between environmental factors and performance of Irish Credit Unions. Aluko (2005)concurs that environmental variables such as economy, socio-cultural, political and technological positively influenced on the firm performance. ANOVA results for environmental scanning and performance of a Matatu Saccos are shown in Table 8.



	Sum of Squares	Df	Mean Square	F	Sig	•
Regression	13.683	1	13.683		14.629	0.000
Residual	183.317	196	0.935			
Total	197.000	197				

#### Table 8 ANOVA table for Environmental Scanning and Performance

The results revealed that environmental scanning of Saccos have significant effect (p = 0.000) on the performance of that Sacco. The variables were carried on for further analysis to determine significance level of its influence. Further analysis on the coefficients of the model was carried out and the results presented in table 9.

	В	Std. Error	Т	Sig.
(Constant)	0.000	0.078	0.000	1.000
Environmental Scanning	0.240	0.060	3.999	0.000

#### Table 9 Coefficients table for Environmental Scanning and Performance

The results showed that the beta coefficient of environmental scanning was 0.24 which helped to generate the model  $Y=0.000+0.24X_1$  for environmental scanning versus performance. The T statistic of the coefficient of environmental scanning had ap-value of 0.003 which was less than 0.05 implying that environmental scanning had a significant influence on performance. This model had an implication that every unit increase in the measure of environmental scanning of a Sacco leads to a 0.24 increase in the level of performance of the Sacco.

#### 5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### **5.1 Summary of Findings**

#### 5.1.1 Environmental Scanning and Performance of MatatuSaccosin Kenya

The objective of the study involved determining the influence that environmental scanning has on performance of Matatu Saccos in Kenya. The Saccos were found to have moderate and low measures on the indicators of environmental scanning. 65% of the Saccos had moderate inflation rate while 34% had stable inflation. 64% had moderate interest rate effect while 34% had stable interest rate. Majority 74% had stable credit accessibility and 57% had moderate unemployment rate.

Inferential analysis showed that environmental scanning had significant 0.240 influences on performance on the bivariate model. Environmental scanning still had a significant influence on



performance based on the multivariate model that considered the combined effect of all the factors jointly. The study concurs that there was positive relationship between environmental factors and performance of Irish Credit Unions. Aluko (2005) concurs that environmental variables such as economy, socio-cultural, political and technological positively influenced on the firm performance.

#### **5.2** Conclusion

The study also sought to determine the influence of environmental scanning on performance of Matatu Savings and Credit Cooperatives in Kenya.

The study fitted statistical models that found the coefficient of environmental scanning significant at 5%. It was therefore also concluded that environmental scanning had a significant influence on performance of Matatu Saccos in Kenya. This concurs with Aduda (2013) that strategic responses to the dynamic environment by Matatu Saccos in Kenya focused on legal, economic and technological environments positively influenced performance of Matatu Saccos. The inflation rate and interest rate are measure of economic environment which was moderate and positively influenced performance of Matatu Saccos in Kenya.

#### **5.3 Recommendations**

The government should ensure that Matatu Saccos conduct SWOT analysis to evaluate internal and external environment which affect performance.

#### 5.4 Recommendations for further research

The researcher recommended that similar studies be conducted in forty seven counties in Kenya to determine influence of strategic planning process on performance of Matatu Saccos .The study recommends that similar studies should be done on other factors such as gender, insecurity and crime, compliance with regulations, infrastructure of an area, type of business organization and government's influence on the performance of Matatu Saccos.

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