CONTINUOUS IMPROVEMENT AND PERFORMANCE OF DEPOSIT TAKING SACCOS IN NYERI COUNTY, KENYA

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ABSTRACT

Kenya has the highest fraction, in percentage points, of Gross Domestic Product (GDP) attributable to cooperative societies globally. The subsector is however characteristically faced with intense competition that has seen several players exit. Theorists and researchers have proposed that one of the key determinants of the survival and growth of SACCOs will be their ability to fully satisfy the needs and growing preferences of the customers through quality and high value products which is the foundation of total quality management. The current study sought to determine the effect of continuous improvement on performance of SACCO's. Performance was evaluated using non-financial metrics that considered the outreach performance of the SACCOs. The study used a census study approach to subject all the 15 active deposit taking SACCOs in Nyeri County as provided by the Directorate of Cooperative Development of Nyeri County. The study also purposively selected Branch Managers, Customer Relationship Managers, Accountants, Credit Managers and Marketing Managers of all the 15 SACCOs as the choice class of respondents. This led to a total of 75 respondents. The study was interested with non-financial (outreach) performance of the SACCOs. Both primary and secondary data collection methods were utilised. Primary data was collected through questionnaires which were administered through the drop and pick method. The instrument was tested for validity and reliability using Cronbach's Alpha Reliability test and expert opinion. Secondary data was collected from SACCO publications and handbooks. The study employed both descriptive and inferential statistics in analysis and used correlation and regression analysis as key analytical models. The multiple regression analysis provided evidence that continuous improvement has a positive and statistically significant effect on SACCOs' performance. The results of Pearson correlation analysis indicated that continuous improvement has a strong positive and statistically significant relationship with SACCOs' performance. The study recommended that the SACCOs' management establish structures to ensure conduct of continuous quality audits and improvement of the promptness with which corrective action is provided.

Key Words: Continuous Improvement, Organisational Performance, Total Quality Management, Savings and Credit Cooperative Societies.

INTRODUCTION

The SACCO subsector in Kenya is acclaimed as one of the best performing in the world (Gamba & Komo, 2014). The financial sector where Deposit Taking SACCOs fall contributes approximately 4 percent of the Gross Domestic Product (GDP) in Kenya with the total assets in the financial sector contributing well over 40 percent of GDP (Olando et al., 2013). The closest country to Kenya to this performance is New Zealand with 22 per cent contribution to GDP attributable to SACCOs. The SACCO Societies Regulatory Authority (SASRA) reports that at least 8 million Kenyans are members of SACCOs while 20 million depend on the movement indirectly (Owen, 2007).

The Kenyan SACCO subsector was additionally documented as the fastest growing in the world by WOCCU in July 2013. Additionally, Kenya's SACCO subsector is ranked by the International Cooperative Alliance (ICA) as first in Africa and 7th globally. The sub sector employs over 500,000 people directly and a further 2 million people indirectly(Bwana & Mwakujonga, 2013). The SACCO Society Regulatory Authority (SASRA) documents that the SACCO subsector's growth averages at 30% per annum (SASRA, 2013).

Mumanyi (2014) asserts that despite their significance to the economy, SACCOs locally and globally are faced with a myriad of challenges.Corporate failures have become a common phenomenon in the SACCOS platform today (Odera, 2012). Theorists and researchers have proposed that one of the key determinants of the survival and growth of SACCOs will be their ability to fully satisfy the needs and growing preferences of the customers through quality and high value products which is the foundation of total quality management.

Penman and Penman (2007) describes performance as a measure of an organisation's earnings and value appreciation based on their share prices. By allowing the comparison of actual performance levels with the set standards, performance measurement permits key reconciliations to be taken and guides the prescribed corrective action on organisational issues (Aguinis, 2009). As such, a good performance measurement framework improves both the performance and productivity of a business entity by reducing costs and other risks.

With regard to SACCOs which interests the current study, several parameters were applicable in assessing performance. The methods available for are broadly categorised into financial and non-financial measures (Ittner & Larcker, 2003). Both financial and non-financial metrics aim at evaluating the accomplishment of business objectives. However, financial metrics rely on monetary factors in reporting the state of business performance while the non-financial metrics does not rely on monetary metrics but other factors that are much more long term in nature.

Financial indicators of performance rely heavily on financial ratios which help in understanding the firm's financial (Wild, Bernstein, Subramanyam and Halsey, 2004). An exclusive application of financial metrics to monitor performance has several limitations which include their short-termism and failure to account for long term performance (Kaplan & Atkinson, 2015). The financial metrics also over concentrate on the internal situation and leave out critical external factors such as customer satisfaction and competitors' actions that are captured by non-financial measures. In addition, financial metrics are open to manipulation of results as desperate managers try to depict the achievement of their targets. Finally, the financial measures are restricted in benefit to the organisation as they may not convey the whole picture regarding the dynamics that drive long-term success and shareholder wealth maximisation goal of the firm. Therefore, non-financial performance measures are considered more broad and objective and superior for ability to reflect on the long-term viability and health of the organisations (Folan & Browne, 2005).

Non-financial performance metrics are ideal for their long term viewpoint and one of the ways in which it can be assessed is a focus on outreach performance. Outreach performance as a non-financial performance measurement metric has been widely applied by SACCOs. This is especially so because the entities aim at reaching out to the financially disadvantaged and underserved class through mobilisation of their savings for on lending to its members at friendly rates (Amey, 2002). Outreach performance in essence entails the delivery of financial services to a large number of clients who had previously been denied such services by the existing system (Rahman, Luo, Hafeez, & Sun, 2012). Outreach performance may be signposted by a range of metrics which include the depth, breadth, length, cost to users, worth of users and scope indicators.

Depth concerns the perceived value attached by the society. Cost of outreach is applied with reference to the cost of a loan to a borrower including the interest rates and the transaction costs. Breadth indicators concerns the number of users while length of outreach considers the time taken to process loans for clients. Finally, the scope of outreach is used in reference to the number of type of financial contracts offered by the lender (Barry & Tacneng, 2009). The current study applied outreach performance that will consider depth, cost, breadth, length and scope of outreach as the choice nonfinancial metrics to demonstrate the state of SACCO performance.

According to Dahlgaard, Khanji, and Kristensen (2008), Total Quality Management (TQM) emerged as an organisational principle in the 1950s. Total Quality is about optimal satisfaction of customer needs and desires (Garvare & Johansson, 2010). As such, the organisational culture and setting requires superb excellence in all dimensions of their products and services. As such, the processes and procedures of the organisation should be aligned to hit a common goal of customer satisfaction.

As Irani, Beskese, and Love (2004) postulate, the components of total quality management practices can be summarised in four principles. These are; employee empowerment, management

commitment, customer focus and continual improvement. As Sureshchandar, Rajendran, and Anantharaman (2001) holds, continual improvement involves consistent enhancement of the firm's products. Continuous improvement helps firms to be both analytical and creative in devising tactics and methods to become more competitive and effective at meeting the expectations of all stakeholders (Deming & Edwards, 1982). The facets of continuous improvement include systematic measurement and enhancement, promotion of excellence teams, continuous quality audits, bench marking and cross-functional process management. These activities seek to attain, maintain and improve standards.

Statement of the Problem

Mumanyi (2014) observes that notwithstanding their significance to the economy, Deposit Taking SACCOs locally and globally are faced with a myriad of challenges. Poor performance has remained a thorny issue facing SACCOs in Nyeri county and Kenya at large. According to the Nyeri County cooperatives Development Department statistics as reported by Kiura (2016), over 50 percent of the Deposit Taking SACCOs registered in the county had collapsed or become dormant. According to Odera (2012), corporate failures have become a common phenomenon in the SACCOS platform today. Academicians, practitioners and researchers have proposed that one of the key determinants of the survival and growth of SACCOs could be their ability to fully satisfy the needs and growing preferences of the customers through continuous improvement towards quality and high value products which is the foundation of total quality management. While studies have been done on this are, a lot needs to be covered on the same in order to give enough empirical evidence for decision making.

Peljhan and Marc (2016) studied TQM and organisational performance of the manufacturing sector in Slovenia. The study found that continuous improvement enhances organisational performance. Chepkech (2014) analysed TQM and performance of tertiary institutions in Uasin Gishu County. Continuous improvement showed a positive correlation with performance. Jaafreh and Al-abedallat (2012) analysed TQM and performance of Jordanian banks and found performance enhancing effects of continuous improvement dimension. Kaynak (2003) studied TQM and performance of textile manufacturers in the United States and found that TQM and particularly continuous improvement enhances performance. The studies present contextual gaps on the need to undertake more local studies as well as empirical gaps on the need to cover more TQM variables.

The illustrations bring forth a lot of gaps that remain unaddressed which include contextual gaps in that only a few studies on this subject are available locally. Empirical gaps are also unveiled on the expansion of continuous improvement dimensions assessed. Methodological gaps are unveiled on the need to consider more objective measures of firm performance, away from subjective

metrics. As such, the current study addressed the subject, continuous improvement and performance of Deposit Taking SACCOs in Nyeri County, Kenya.

Objective of the Study

The study sought to assess the effect of continuous improvement on performance of Deposit Taking SACCOs in Nyeri County, Kenya.

Research Question

The study sought to answer the following research question:
i) How does continuous improvement affect the performance of Deposit Taking SACCOs in Nyeri County, Kenya?

LITERATURE REVIEW

Both theoretical and empirical literature was reviewed. Regarding the theoretical review, the study was guided by institutional theory, quality improvement theory and the resource based theory.

Institutional theory

The Institutional Theory is associated with Barney (1991) and formulates how organizations are able to survive and succeed through the continuous cultivation of congruence between the expectations of the organisation and their environments. The organisational environment consists of both internal and external environment. According to Moll, Burns and Major (2006), the basic premise of the institutional theory is that organisation's propensities toward compliance with main norms, customs, and social pressures in their internal and external environments result to consistency amongst firms in their structures and behaviours, and that successful firms gain support and authenticity by complying with social pressures.

As such, the performance of firms is largely dependent on how they integrate their internal systems with the dynamics of external environment (Bruton et al., 2010). This would for instance be achieved through maintenance of industry standards, responsiveness to keep up with competition, customer needs and preferences and other prevailing market conditions. The theory was therefore be key in the assessment of continuous improvement as a variable in the study as the organisations engage in activities to match with expectations of the environment (Yang & Konrad, 2011).

Deming's Quality Improvement Theory

The Quality Improvement Theory is associated with Deming (1986) as one of its earliest proponents. The theory essentially postulates that the quality management doctrine is best effected and promoted when it is enshrined as principally the responsibility of top management. As such, without substantial support from the top management team, quality management strategies remain futile (Anderson et al., 1994). At the very core of the theoretical argument is that management is responsible for organisational systems, and that efficiency and effectiveness of such systems is what determines whether the firm succeeds or not. According to Boaden, Harvey, Moxham and Proudlove (2008), total quality management cannot succeed without top management commitment since it is the management that invests in the processes, creates corporate culture, selects suppliers and cultivates long-term relationships.

Deming (1986) promoted a systematic approach to problem-solving and introduced the Plan Do Check Act (PDCA) cycle as a model to ensure continuous improvement in the firm. The PDCA concept also plays a significant role in reducing the difference between customer requirements and preferences with what the firm actually offers thereby assuring the long term performance and survival of the firm (Goetsch & Davis, 2006). Oakland (2014) asserts that top management has the responsibility to take the lead in transforming processes and systems in building successful organisations.

The top management team needs to empower employees by providing a conducive working environment, ensuring effective communication and improving the skills base of those employees. Deming's Quality Improvement Theory was relevant to study in guiding the assessment of the effect of continuous improvement as a facet of total quality management with the basic argument that it serves to enhance quality of products and services and ultimately improve performance (Deming, 1986).

Resource-Based View Theory

Also known as the Resource Based View (RBV), the theory was authored by Wernerfelt (1984) and is built on the argument that the basis of the firm's competitive advantage lies in its internal resources and not a firm's place in the external environment. The RBV theory develops the body of knowledge of differential firm performance and introduces new dimensions of understanding of strategic management as a discipline (Barney and Clark, 2007). As a foundational argument, the theory holds that the firm's competitive advantage is results from the unique resources and capabilities that a firm possesses and not simply on the evaluation of environmental opportunities and threats in conducting the business (Barney, Wright, & Ketchen, 2001). The theory asserts that the real source of a firm's competitive advantage and superior performance is its internal resources that are valuable, rare, inimitable and without substitutes.

Firm's resources are classified into two main categories namely; tangible and intangible resources. Generally, the resources include firm's assets, firm attributes, information, capabilities, organizational processes and knowledge. Tangible resources are physical assets that an organization possesses is made up majorly of materials, premises, machinery and equipment. Intangible resources on the other hand are the resources that cannot be physically located and include corporate brand name, organizational values, networks and processes that are not included in normal managerial-accounting information.

As held by Rousse and Daellenbach (2009), the intangible resources are more significant to a firm than the tangible ones in that they are built over a long period of time and are not therefore easily imitable. The total quality management practices need to be valuable, rare, inimitable and not substitutable to achieve competitive advantage and thus realize superior performance. Therefore, this theory supported variable of continuous improvement as a facet of superior organisational performance.

Empirical Literature Review

Osazevbaru and Oyibo (2023) assessed the total quality management (TQM) practices and performance measured by customer satisfaction. The population comprised of 20 licensed microfinance banks in Delta State were sampled. The study employed a descriptive survey research design. The total number of employees of the selected banks was 327. The analysis was carried out using a blend of descriptive as well as inferential statistics. Results showed that total quality management practices were positive predictors of performance. Continuous quality improvement showed a positive and significant effect on organizational performance. In context, gaps are evident as past studies on this subject are mainly from a foreign set up leaving scanty local evidence.

Bahia, Abbas and Idan (2023) assessed total quality management and performance of academic organizations. The study relied on a case of the Technical Institute / Diwaniyah in Iraq. Specific variables assessed included customer focus, management commitment, continuous improvement and employee empowerment. An exploratory approach will applied. The study used a questionnaire of 60-items in data collection. The sample comprised of 65 academic staff members from various parts of the organization. Employee empowerment was seen to have a positive effect on performance. From a general perspective, total quality management as a practice was shown to positively impact on performance of academic institutions. Specifically, continuous improvement demonstrated a positive impact on performance. Contextual gaps are highlighted in that studies on this subject are over concentrated in foreign set ups.

Masindet and Ogollah (2014) embarked on a study on TQM practices and performance of the supply chain for Kenyan cement manufacturers. The study applied purely the descriptive statistics methodology of data analysis. The study results indicated that quality reviews were carried out quite often as a facet of continuous improvement framework.

Wanyoike (2016) study focused on TQM practices performance of Kenyan manufacturers. Using a positivist philosophical foundation and a combination of both descriptive and explanatory research designs targeting a population of all the 60 manufacturing firms in Kenya, the study established that continuous improvement had a positive and statistically significant effect on performance of manufacturing firms. The study presents contextual gaps on the need to replicate such studies to the service industries where they are still rare despite the diffusion of TQM ideals to service industry players.

A study by Muthama (2016) focused on TQM and performance of Kenya's mobile telecommunication companies. Organizational performance was indicated through quality, innovation and financial metrics in the mobile telecommunication firms in Kenya. A descriptive survey approach while the study relied solely on primary data collected through questionnaires. Generally, total quality management was found to enhance organisational performance. On continuous improvement, the study found the factor to be a significant determinant of organisational performance. The study presents methodological gaps on the need to use secondary data as well to complement the primary data in the analysis.

RESEARCH METHODOLOGY

Research Design

A research design is a detailed plan on how a research is conducted so as to attain the pre-set objectives (Orodho, 2005). The study used a descriptive survey research design. Mugenda and Mugenda (2003) asserts that a descriptive survey research design helps in obtaining information regarding already existing relationships. The use of the descriptive research design was justified as the researcher sought already existing information on the condition of continuous improvement as a TQM variable and performance of SACCOs.

Target population

This refers to a set of units for which data collected is used to generalize results and make conclusions (Oso & Onen, 2005). It can also be termed as a particular group of individuals with similar characteristics identified as the intended respondents for a particular research (Ott & Longnecker, 2015). The target population consisted of all the 15 Savings and Credit Cooperative Organization (SACCOs) in Nyeri County, Kenya as identified with the SACCO Societies

Regulatory Authority of Kenya (SASRA, 2018). The target respondents were 75 in total and comprised of the branch managers, operations managers, customer relations managers, finance and investment managers and credit managers in all the 15 SACCOs in Nyeri County.

Sampling Technique and Sample Size

A sample is a subset of a population. Sampling helps to identify a representation from the target population from whom data collected will enable the researcher answer the research questions. The more demonstrative the sample, the more confidently inferences can be deduced concerning the larger population (Bryman & Bell, 2015). The researcher used census approach in identifying the SACCOs to subject to the study. According to Kothari (2011), where a population is small and there are no major research constraints, a census is considered most appropriate as it gives more accurate results. By use of a census approach, all the 15 SACCOs in Nyeri County were included in the research.

A purposive sampling technique was used to identify individual respondents from the 15 SACCOs in Nyeri county considered to be best equipped with information sought. The respondents included branch managers, operations managers, customer relations managers, finance and investment managers and credit managers. In using purposive sampling technique, the researcher selects the respondents who have the know-how of the information being sought in order to accomplish the objectives (Tongco, 2007).

The target respondents were 75 in total and 5 from each of the fifteen Deposit Taking SACCOs in Nyeri County. The targeted number of respondents was deemed ideal going with conventional wisdom presented by Mugenda and Mugenda (2003) who assert that for a sample size to be considered as ideal for normal approximations, it must comprise of more than 30 units, elements, objects or people.

Table 3.1: Target Respondents

	No. per Sacco	No. for all Sacco's	Proportion	Cumulative
Branch Managers	1	15	20%	20%
Credit Managers	1	15	20%	40%
Finance and Investment officers	1	15	20%	60%
Operations Manager	1	15	20%	80%
Customer Relations Officer	1	15	20%	100%
TOTAL	5	75	100%	100%

Source: Researcher (2020)

Data collection Instruments

The researcher used a semi structured questionnaire in collecting primary data. The instrument was administered to the respondents using the drop and pick method informed by the respondents' busy nature of work. Questionnaires deliver notable benefits as they help save on time, and limits interviewer's bias (Kombo & Tromp, 2006). The questionnaires were made up of mainly likert

scale questions that sought to find out information about the variables. Likert type questions use a methodical scale from which participants choose the option that best represents their opinion (Sapsford & Jupp, 2006). Secondary data was gathered from management reports and other corporate handbooks. The researcher assessed the validity and reliability of the research instruments.

Validity and Reliability of Research Instrument

The validity of an instrument is the measure as to whether it gives accurate results of what it purports to measure. An instrument is considered valid if the researcher is convinced that if the measurement is repeated over and over again, there are high chances of obtaining the same result (Guion, 2002). Validity regards three main contexts namely; the form of the test, the purpose of the test and the population for whom it is intended (Golafshani, 2003). The researcher was interested with ascertaining the content validity, face validity, criterion, concurrent, and construct validity status of the instrument. The researcher used expert opinion through assistance from the supervisor in ensuring the validity status of the instrument in relation to study objectives. To this regard, all the recommendations of the supervisor were taken to account. The instruments was also pre-tested on a small sample prior to the main study to ascertain that it measured the intended parameters and issues. The pre-test involved randomly issuing 5 questionnaires to managers in two Sacco's from a neighboring county and making improvements on the instruments. Csikszentmihalyi and Larson (2014) presents a case for pretesting and expert opinions as reliable validity testing and improvement tools.

Guion (2002) assert that reliability concerns the dependability status of the research instruments in giving consistent results in repeated trials. Reliability refers to the extent to which a research instrument gives the same results for the same respondents over a common issue on repeated trials (Golafshani, 2003).Reliability therefore concerns the extent to which research instruments deliver consistency of the scores. The researcher conducted tests to analyse the reliability of the research instrument by use of the Cronbach's Alpha Reliability test. According to Tavakol and Dennick (2011), this method is suitable for items scored with values other than 1 or 0 such as scores on a 5-point scale. Cronbach's alpha embodies an average correlation that would be attained over all split-halves of the test. The Cronbach's alpha reliability test concerns the internal consistency status of the research instruments (Mugenda & Mugenda, 2003). According to Gliem and Gliem (2003), a Cronbach's reliability coefficient of greater than 0.70 would be considered "acceptable" in social science research circumstances; a scale that was applied to explain the reliability or otherwise of the research instrument.

Data Collection Procedure

Data collection exercise was carried out using questionnaires by use of the drop and pick approach. Using the drop and pick method, the researcher presented the questionnaires to the target

respondents both in person and in some cases using research assistants and then picked the instruments at a later date. The justification for choice of this method was the fact that the target respondent's availability was limited and therefore needed time to fill the questionnaires. The target population was also considered literate hence minimal interpretation was required. The researcher also gathered secondary data from the SACCOs' financial statements and management reports.

Data Analysis and Presentation

The data obtained was subjected to a number of operations that included editing to clean up the data, coding and classification in accordance with the study objectives and finally analysis using statistical package for social sciences (SPSS). In analysis the study used both descriptive and inferential statistics. Inferential statistic tools included correlation and regression analysis. The inferential statistics were key in determining the effect and relationship of TQM variables on SACCOs' performance. The study adopted a regression model of the type indicated below as adopted from Kutner, Nachtsheim and Neter (2004).

$Y_{ij} = \beta_0 + \beta_1 X_1 + \varepsilon$

Where, Y_{ij} =Performance of SACCOs

X_1= Continuous improvement

β_0 = is the regression intercept

β_1, is the regression gradient

Ɛ is the error term.

RESEARCH FINDINGS AND DISCUSSIONS

This part presents the results of the analysis process.

Reliability of the Research Instrument

The reliability status of the research instrument is reviewed in this section. The test is done through the Cronbach's Alpha reliability analysis. Table 4.1 presents the reliability results.

Table 4.1: Cronbach's Alpha Reliability Analysis

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.711	.701	24

Source: Survey data (2021)

As affirmed by Gliem and Gliem (2003), an alpha coefficient of more or equal to 0.70 would be acceptable and would represent a high level of internal consistency. The Cronbach's Alpha was 0.701 for 24 items. This was a representation of a high level of internal consistency.

Response Rate

An analysis of response rate is presented in this section and in particular Table 4.2. The evaluation is instrumental in determining the extent to which the response threshold is observed.

Table 4.2: Response Rate

Targeted respondents	Responses received	Response rate
75	53	70.67%

Source: Survey data (2021)

In total, 75 questionnaires were distributed to the respondents who were spread across the 15 SACCOs constituting the target population. From this figure, only 53 instruments were returned to the researcher. A response rate of 70.67 percent was therefore attained. This threshold was considered adequate for analysis purposes as Mugenda and Mugenda (2003) recommends 50 percent as the minimum response threshold, further indicating that a response rate of 60 percent is good and above 70 percent as excellent.

Descriptive Analysis

Descriptive analysis output inform of descriptive statistics; means and standard deviations are presented in this part. The statistics cover continuous improvement (independent variable) and Performance of Deposit Taking SACCOs (the dependent variable).

Continuous Improvement

Continuous improvement was assessed as a total quality management practice in the SACCOs. Table 4.3 presents statistics to this regard.

Table 4.3: Continuous Improvement as a Total Quality Management Practice

	N	Mean	Std. Dev
The SACCO regularly and systematically appraises and works on measures to enhance initiatives	53	3.8063	.63420
The SACCO conducts continuous quality audits and takes corrective action promptly.	53	3.1083	.30683
The SACCO compares the performance of quality systems against some pre-set standards and notes areas that need improvement.	53	3.3003	.55232
The SACCO is committed to cross-functional process management to ensure a wholesome impact on the wider organisational goals.	53	3.9863	.33001
Average	**53**	**3.5503**	**.45584**

Source: Survey data (2021)

The average mean (3.55) shows that continuous improvement was largely practiced as a total quality management practice at the deposit taking SACCOs in Nyeri County, Kenya. The low average standard deviation (0.46) validates this state as it demonstrates closeness of the observations to the mean. The results (M=3.81, SD=0.63) indicated that the SACCO largely ensured regular and systematic appraisals and works on measures to enhance initiatives. The results (M=3.98, SD=0.33) indicated that SACCOs were also found to be largely committed to cross-functional process management to ensure a wholesome impact on the wider organisational goals. Nonetheless, the results (M=3.11, SD=0.31) indicated moderation the SACCOs conduct of continuous quality audits and promptness in undertaking corrective action. Similarly, the results (M=3.99, SD=0.33) showed that the SACCO only moderately compared the performance of quality systems against some pre-set standards and notes areas that need improvement.

Performance of Deposit Taking SACCOs

This part covers descriptive statistics; means and standard deviation for the independent variable which is performance. The performance is evaluated using outreach indicators that consist of breadth of outreach, length of outreach and scope of outreach. Table 4.5 presents the output. The study collected secondary data regarding outreach performance through a review of management reports and published financial statements of the SACCOs. The results are presented in Table 4.4.

Table 4.4: Outreach Performance of Deposit Taking SACCOs

	N	Mean	Std. Dev
Breadth of Outreach (Number of Members and Customers).	53	.76551	.35234
Length of Outreach (Average Time Taken to Process Loans for Clients).	53	.56466	.44573
Scope of Outreach (Number of Types of Financial Contracts Offered).	53	.96999	.32111
Cost of Outreach (Interest Rates and the Transaction Costs).	53	.23424	.05364
Average	**53**	**.63361**	**.29321**

Source: Survey data (2021)

As shown by the average mean (0.6336), the SACCOs' outreach performance had improved by an average of 63.36 percent in the review period. This condition is affirmed by the average standard deviation (0.29) which shows proximity of observations to the mean. The results (M=0.77, SD=0.35) indicates that on average, the breadth of outreach indicated by the number of members and customers improved by 76.55 percent in the review period. The length of outreach measured by the average time taken to process loans for clients had improved by 56.47 percent as shown by the statistics (M=0.56, SD=0.44). As the results show (M=0.97, SD=0.32), the scope of outreach (number of types of financial contracts offered) improved by an average of 96.99 percent over the period under review. Finally, the statistics (M=0.23, SD=0.05) indicated that the cost of outreach indicated by interest rates and the transaction costs also improved by 23.42 percent.

Primary data was also collected to assess the outreach performance of the Deposit Taking SACCOs. The statistics are presented in Table 4.5.

Table 4.5: Performance of Deposit Taking SACCOs

	N	Mean	Std. Dev
The SACCO has been able to grow the number of members and customers satisfactorily.	53	3.8572	.40052
The SACCO takes considerable turnaround time to process loans for clients.	53	3.6875	.37576
The number of types of financial contracts offered by the SACCO has been expanding with time	53	3.5674	.65236
The SACCO has sustained a momentum of growth in perceived value of her offerings to clients	53	3.6543	.58621
The SACCO ensures efficient management of interest rates and transaction costs	53	3.1230	.77532
Average	**53**	**3.5779**	**.55803**

Source: Survey data (2020)

The average mean (3.58) demonstrates a good performance condition of the deposit taking SACCOs with regard to outreach indicators that consist of breadth of outreach, length of outreach and scope of outreach. The low average standard deviation (0.56) validates this state as it demonstrates closeness of the observations to the mean. The results (M=3.86, SD=0.40) show that the SACCOs had largely achieved in growing the number of members and customers satisfactorily. As statistics (M=3.68, SD=0.38) show, the respondents also largely held that their SACCOs took considerable turnaround time to process loans for clients. The results (M=3.57, SD=0.65) further demonstrated that the number and types of financial contracts offered by the SACCOs were also seen to be largely expanding with time. The statistics (M=3.65, SD=0.58) showed that SACCOs had also largely sustained a momentum of growth in perceived value of her offerings to clients. Nonetheless, as the results demonstrate (M=3.12, SD=0.78), SACCOs only moderately ensured efficient management of interest rates and transaction costs.

Inferential Analysis

The inferential statistics were considered vital in making inferences or generalisation upon the entire population. The inferential statistics include Pearson correlation analysis and multiple regression analysis. They were useful in answering the research questions and determining the effect of continuous improvement on performance of Deposit taking SACCOs.

Pearson Correlation Analysis

The Pearson Correlation analysis helped in determining the relationship between continuous improvement as a total quality management practice and performance of Deposit Taking SACCOs. Table 4.6 presents the output to this effect.

Table 4.6: Pearson Correlation Analysis

		SACCOs' Performance
Continuous Improvement	Pearson Correlation	.696**
	Sig. (2-tailed)	.017
	N	53

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Survey data (2021)

The Pearson correlation analysis output showed that continuous improvement has a positive relationship with performance of the Deposit Taking SACCOs. Continuous improvement has a Pearson correlation coefficient of 0.696 which demonstrates a strong and positive relationship with SACCOs' performance. The statistical significance test is met as the P value of 0.017 is within the 5% threshold. The results agree with past findings by Masindet and Ogollah (2014), Wanyoike (2016) and Muthama (2016) who indicated that continuous improvement has a positive relationship with organisational performance.

Multiple Regression Analysis

This inferential analysis procedure sought to effectively answer the research question and determine the effect of continuous improvement on performance of Deposit Taking SACCOs in Nyeri County, Kenya. The Coefficients output of the multiple regression analysis demonstrates the magnitude of effect of continuous improvement and performance of the Deposit Taking SACCOs. Table 4.7 shows the coefficients of the multiple linear regression.

Table 4.7: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.645	.234	2.654	15.577	.005
	Continuous Improvement	.497	.109	.388	4.559	.012

a. Dependent Variable: SACCOs' Performance

Source: Survey data (2021)

The multiple regression analysis output provides evidence that continuous improvement is a useful determinant of SACCOs' performance. The regression model is developed as:

$Y_{ij}= 3.645+ 0.497X_1 + \varepsilon$

Where, Y_{ij} =Performance of SACCOs

X_1= Continuous improvement

β_0 = is the regression intercept

β_1 is the regression gradient
Ɛ is the error term.

The coefficient for continuous improvement (0.497) has an associated p-value of 0.012 which is less than 5% significance threshold. This shows that continuous improvement is a significant predictor of SACCOs' performance. As such, a unit increase in continuous improvement as a TQM practice would result in a 0.49 unit improvement in SACCOs' performance. The results agree with past findings by Masindet and Ogollah (2014), Wanyoike (2016) and Muthama (2016) who indicated that continuous improvement was useful predicting organisational performance.

Conclusions, Recommendations and Contribution to Knowledge

In view of the data analysis results, the study made key conclusions regarding continuous improvement as a total quality management practice and SACCOs' performance in Nyeri County, Kenya. It was concluded that the SACCOs registered a fairy good level of performance with regard to outreach indicators that consisted of breadth of outreach, length of outreach and scope of outreach. Nonetheless, the study concluded that the SACCOs were only moderately effective in ensuring efficient management of interest rates and transaction costs. The multiple regression analysis results informed a conclusion that continuous improvement is a useful, positive determinant of SACCOs' performance. Thus, an enhancement of continuous improvement would result in an improvement in SACCOs' performance. On the contrary, a decline in use of continuous improvement as a TQM variable would result to a decline in SACCOs' performance. The Pearson Correlation analysis results informed a conclusion that continuous improvement is positively associated with SACCOs' performance.

Regarding the performance of the SACCOs, although the firms registered a fairy good level of performance with regard to outreach indicators that consist of breadth of outreach, length of outreach and scope of outreach, there was only moderate achievement with regard to the cost of outreach that concerned efficient management of interest rates and transaction costs. As such, the study recommends measures to be undertaken to address this condition. The enhancement of the total quality management system and particularly continuous improvement is recommended as a sure way to address this performance, going by the empirical evidence of the current study. Although continuous improvement was largely practiced as a total quality management practice at the deposit taking SACCOs, the study identified some areas that needed to be addressed. It is recommended that the SACCOs' management establish structures to ensure conduct of continuous quality audits and improvement of the promptness with which corrective action is provided. In addition, the study recommends that the SACCOs management establish a system that regularly reviews the performance of quality systems against some pre-set standards and notes areas that need improvement.

The study makes significant contribution to expansion of strategic management as a discipline. In particular, the study develops the strategic management practice and theory by making major contributions to knowledge of the subject matter; continuous improvement as a total quality management practice and organizational performance. Notably, past studies have concentrated with financial metrics of organizational performance and only moderately considered non-financial indicators. More specifically, the outreach indicators have rarely been considered in assessment of organizational performance. The study considered a balance approach in measuring the outreach performance of SACCOs incorporating dimensions of breadth of outreach, cost of outreach, length of outreach and scope of outreach. Therefore, the study provides indispensable empirical evidence to guide decision making on organizational performance. The study underlines the importance of continuous improvement as a total quality management practice as outlined by the institutional theorists, Deming's quality improvement theory and the resource based view (RBV).

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