Effect of Strategic Information Communication Technology Adoption on Performance of Deposit Taking Saccos in Kisii Region, Kenya

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Abstract
Globally, performance is a key concern to every organization while information communication technology (ICT) has been viewed as a tool that can be adopted to strategically enhance it. Consequently, organizations have unprecedentedly adopted ICT in recent years. The unprecedented speed of adoption of ICT around the world has raised general expectations about their potential effect on firms' competitive advantage. Deposit taking SACCOs (DTSs) are also preoccupied with sustainable performance hence contribution to Kenya's vision 2030 yet they face considerable competition from banks and micro finance institutions (MFIs) .Savings and credit cooperative organizations (SACCOs), have consequently been adopting ICT yet some continue to perform poorly as seen in their dwindling membership and rate of dividend as witnessed in their final accounts. The main study purpose was to evaluate effect of strategic ICT adoption on performance of DTSs in Kisii region; Kenya .Specific objective was to determine effect of ICT policy implementation on performance of SACCOs. The study was guided by Resource Based Theory which considers performance of an organization as a function of both the tangible and intangible resources it has and Innovation Diffusion Theory which explains how, why and what rate new ideas and technology spread. The theories were applied within a conceptual framework encompassing ICT variables and their effect on performance. The research design was a correlation survey. The target population was 45 respondents comprising of nine chief executive officers and 36 departmental heads in nine DTSs in Kisii region. A pretest on five respondents drawn from one Sacco found the instruments to be reliable with Cronbach's α=0.83625. Instrument validity was reviewed by experts at Maseno University School of Business and Economics. Research instruments were administered on a saturated sample of 40 respondents to collect primary data. Using a multiple regression analysis the study ICT policy implementation at β=0.255 (p=.022) to be statistically significant positive predictors of Sacco performance. This means that a unit adoption of ICT policy implementation will lead to an increase in the level of performance by 25.5%. The study concluded that improved ICT policy implementation yielded better performance in deposit taking SACCOs. The study recommended strategic implementation of ICT policies by deposit taking SACCOs. The study's significance is in informing: Sacco managers in implementation of ICT policies; governments in making informed ICT policy implementation policies and academicians in using the findings as a benchmark for future research.

Keywords: Performance Adoption, Deposits Taking SACCOs, ICT policy implementation

1. INTRODUCTION

Performance is a key concern to every organization and literature identifies various ways of improving performance of an organization. For example, Barney (2001), acknowledged the important place of a firm's resources in its performance. He observed that the resource based theory sees the firm as a collection of assets, or capabilities which are intangible and can be used to enhance performance. Wernerfelt (1984) argued that highly efficient resources form a resource position barrier that is effective because of the lower expected returns on the same type of resources if acquired by a competitor.

Information Communication Technology (ICT), just like other resources, has been viewed as a tool that can be strategically adopted to enhance performance in an organization. ICT is defined as the computer and developments in telecommunication while Rogers (2003) defines adoption as a decision to make full use of an innovation as the best course of action. ICTs, whether older ICTs such as telephone, radio and television, or the newer ICTs such as computers or the Internet, have been used to improve organizational efficiency and effectiveness hence improved performance. According to Brynjolfsson (2003), ICT increases productivity and operational efficiency in specific business processes, not only by reducing costs but also by impacting on intangible assets such as quality improvement in design processes or life-cycle enhancement in inventory management systems.

Although interest in adoption of ICT has grown substantially, research on the effect of strategic ICT adoption on performance of SACCOs has not been given prominence despite the fact that globally, the cooperative sector has evolved in the adoption of ICT in their day-day activities. In Kenya, what propels ICT to the forefront is Kenya's intention to be a fully developed nation by the year 2030 – Vision 2030.The vision aims to transform Kenya into a newly industrializing middle income country providing high quality life to all its citizens by the year 2030(GoK, 2007).With regard to financial services, it is envisaged that Kenya will have a vibrant and globally competitive financial sector that will create jobs and also promote high levels of savings. Kenya will also streamline informal finance and SACCOs. The vision is supported by SASRA (2013) report that Kenya Sacco industry is a critical player to achieving the 10% annual economic growth target as envisioned by Kenya's economic blueprint, Vision 2030. SACCOs' central role of mobilizing both domestic and international financial resources is key to achieving this high level growth target and funding the key Vision 2030 projects. This is demonstrated by the membership served by the SACCOs, which in December 2013 increased to 3.3 million from 2.97 million in 2012 (SASRA,2013) The data underscore the SACCOs pivotal contribution to Kenya's economic growth. The empirical studies do not focus on effect of strategic ICT adoption on performance of SACCOs. Hence, the effect of strategic ICT adoption on performance of SACCOs remains unknown.

The strategic management literature recognizes numerous concepts and variables to measure performance. Effect of ICT on the organization as a whole has frequently been measured using variables representing market performance, such as market share and market value of the firm, among others (Liang et al., 2010). The impact on operational performance has been studied mainly using productivity measures and cost reduction (Liang et al., 2010; Das et al., 2011). In this study, performance was measured in terms of total membership and rate of dividend since

they represent growth and return on investment respectively which is universally acclaimed dimensions of performance.

The growth of the ICT sector in co-operative societies in Kenya has been significantly influenced by local and global trends. It can be evaluated in terms of number of fixed and mobile telephone lines; the number of computers and services; Sacco-link services , the number of Internet users; broadcasting stations; and market share of each one of them.

The strategic adoption of ICT infrastructure and innovation has been taking place within some policy frameworks. A policy may be defined as a set of guidelines geared at streamlining the operations of an organization. ICT is an emerging phenomenon and its evolution in many countries has taken place with or without a systematic, comprehensive and articulated policy. University of Manchester's Centre for Development Informatics (2010) observes that if there is a lack of ICT policy incoherence can emerge. In Kenya SASRA has been formulating policies geared at streamlining the operation of SACCOs (SASRA, 2013). Habib (2011) also found that ICT policy implementation can enhance performance and even recommended the implementation of ICT development policies in order to improve SME growth. The literature on ICT policy implementation is scanty yet the little that is available, though appreciating its contribution to performance, is not in relation to Sacco performance.

Statement of the Research Problem

Performance is a key concern to every organization and Information Communication Technology (ICT) has been viewed as a tool that can strategically be adopted to enhance it. Consequently, it is in the face of the rise in competition coupled with technological advancements that institutions in the financial services sector (FSS) sector have been strategically adopting ICT. Savings and credit cooperative organizations (SACCOs) have also not been left behind in adoption of ICT yet some continue to perform poorly. The poor performance of some SACCOs in Kenya is a concern. This is because according to SASRA (2013) report the Kenya Sacco industry is a critical player to achieving the 10% annual economic growth target as envisioned by Kenya's Vision 2030. Studies on contributions of ICT to performance of organizations such as banks, governments, manufacturing and micro finance institutions have been undertaken in various parts of the world and the studies acknowledge the pivotal role that ICT plays in terms of efficiency, profitability and service delivery. However despite the established fact that organizations can only remain competitive if they strategically adopt technology in this rapidly changing environment no research had been conducted to establish the relationship between strategic ICT adoption and performance of deposit taking SACCOs. Specifically, no studies exist that relate ICT infrastructure; ICT innovation and ICT policy implementation to performance of deposit taking SACCOs. In the absence of supporting empirical literature, SACCOs particularly the deposit taking SACCOs will continue to invest in ICT infrastructure and consequently use the infrastructure to innovate products and processes within some policy framework without any academic justification. The main purpose of this research was therefore to evaluate the effect of strategic ICT adoption on performance of DTSs in Kisii region, Kenya. The specific objective of the study was to evaluate the effect of ICT policy implementation on performance of DTSs Kisii region. The research

hypotheses is: H_0: There is no relationship between ICT policy implementation and performance of DTSs in Kisii region.

Conceptual Framework

Organizational performance is at the centre of strategic management since performance is the true test of any strategy. Hofer (1983) acknowledged that performance is a contextual concept associated with the phenomenon being studied. Since performance is a contextual concept, multiple performance criteria have been suggested in the strategic management literature. However, the dominant performance criteria used in empirical strategy research are financial measures of performance that address the profitability or growth of the organization (Venkatraman and Ramunujan, 1986; Woo and Willard, 1983). These criteria include sales growth, return on investment, return on sales, return on equity and earnings per share.

Growth of an organization comprises the actual output or results of an organization as measured against its intended output (or goals and objectives). According to Richard (2008), organizational growth encompasses three specific areas of firm outcomes namely financial performance ; product market performance and shareholder return. In this study performance will be measured by the growth of Sacco growth in terms of total membership and also by return on equity as reflected on rate of dividend payment.

Information Communication Technology (ICT) has been viewed as a tool that can be strategically adopted to enhance performance in an organization. As Baryamureeba (2014) observed, ICT makes it easier for a large company or organization to do market research at a competitive price. He also recommended that SACCOs should invest in ICT innovations that have potential to drive economic growth and stability.

Kenya the ICT Master Plan (2014) appreciates the fact that these ICT innovations can only be effective in an organized ICT policy environment. The document observes the need for ICT policy in organizations. The Kenya government as a result came with an integrated ICT master plan. Moreover SASRA also periodically issues policy guidelines to streamline operations of SACCOs. SACCOs at organization level also have ICT policies but a policy that is never implemented is useless. Hence, ICT policy implementation is important if improved performance is to be realized.

Performance, viewed specifically in terms of total membership and rate of dividend, was therefore conceptualized ICT policy implementation.

2. LITERATURE REVIEW

Human nature insists on definition of every concept. This chapter will therefore do exactly that by synthesizing already available theoretical and empirical literature on key concepts in this study. In particular the concepts to be considered include theoretical foundation, ICT infrastructure, ICT innovation, ICT policy implementation and performance.

Theoretical Foundation

A theory can be defined as a set of interrelated concepts which structure a systematic view of phenomena for the purpose of explaining or predicting that phenomena. It is like a blueprint and

a guide for modeling a structure. A theory can also be defined as an expression of knowledge, a creative and rigorous structuring of ideas that project a tentative, purposeful and systematic view of phenomena. A theoretical framework provides a particular perspective or lens through which to examine a topic. This study was grounded on two theories namely resource based theory and innovation diffusion theory. The theories are discussed consecutively.

Hofer & Schendel (1978) defined strategy as the match an organization makes between its internal resources and skills and the opportunities and risks created by its external environment. Grant (1991) observed that the case for making resources and capabilities of the firm the foundation for its long term strategy rests upon the premises that the internal resources and capabilities provide the basic direction for a firm's strategy and that the resources and capabilities are the primary source of profit for the firm. The resource-based theory views the firm as a bundle of resources which can be utilized to achieve a position of advantage over other competing firms in the industry. It is these resources and the way that they are combined, which make firms different from one another. According to Barney (2001), the theory sees the firm as a collection of assets, or capabilities which are intangible. Wernerfelt (1984) argued that highly efficient resources form a resource position barrier that is effective because of the lower expected returns on the same type of resources if acquired by a competitor. Barney (2001) noted that the resource based view of the firm explains its ability to deliver sustainable competitive advantage when resources are managed such that their outcomes cannot be imitated by competitors, which ultimately creates a competitive barrier. A firm's sustainable competitive advantage can therefore be reached by virtue of unique resources being rare, valuable, inimitable, no tradable and non-substitutable. The study was theoretically guided by resource based theory because ICT components factored into the study particularly infrastructure and innovation dimensions are indeed a resource because capital is needed in order to acquire them.

Rogers (2003) defined an innovation as any idea, object or practice that is perceived as new by members of the social system and defined the diffusion of innovation as the process by which the innovation is communicated through certain channels over time among members of social systems. Innovation diffusion is a theory of how, why and what rate new ideas and technology spread through cultures, operating at the individual firm level. Diffusion of innovation theory attempts to explain and describe the mechanisms of how new inventions in this context ICT is adopted and becomes successful

Rogers (2003) defined adoption as a decision to make full use of an innovation as the best course of action available. Rogers defined an innovation as an idea, practice, or object that is perceived as new by an individual or other unit of an organization. However not all innovations are adopted even if they are good it may take a long time for an innovation to be adopted. Rogers (2003) identified relative advantage, compatibility, complexity, triability and observability as the five critical attributes that greatly influence the rate of adoption. Rogers (2003) stated that the innovation diffusion of new technology has situational or environmental factors that impact the adoption.

ICT Policy Implementation and Performance

A policy document may be defined as a set of guidelines. ICT is an emerging phenomenon and its evolution in many countries has taken place with or without a systematic, comprehensive and articulated policy. However, the lack of a coherent policy is likely to contribute to the development (or prolonged existence) of ineffective infrastructure and a waste of resources. The Kenya ICT Master Plan (2014) appreciates the need for organizations to embrace ICT. Governments have been coming up with policies geared towards streamlining the ICT environment. This is because ICT policies can foster market conditions that reward the successful adoption of ICT Moreover, competition needs to be strengthened by governments because it not only helps lower the costs of ICT products and services, which fosters diffusion but it also strengthens pressures on firms to improve performance and change conservative attitudes.

Unless these deficiencies in ICT policies are adequately addressed, ICT may continue to fall short in its constructive effect on performance of various organizations, SACCOs included. Kenya as a result produced its first National ICT Policy in 2006. This policy was guided by the need for infrastructure development, human resource development, stakeholder participation and appropriate policy and regulatory framework. In the light of the prevailing ICT legal framework, SACCOs in Kenya have been coming up with internal ICT policies that are in tandem with the government ICT policies with the sole objective of improving organizational performance in terms of operational efficiency and effectiveness. From the literature it is evident that DTSs enjoy a bigger market share and SACCOs, just like other financial institutions have adopted ICT with the aim of improving performance (SASRA, 2013).

University of Manchester's Centre for Development Informatics (2010) observes that if there is a lack of ICT policy incoherence can emerge. Therefore governments have been coming up with policies geared towards streamlining the ICT environment. Kenya as a result produced its first National ICT Policy (2006). This policy was guided by the need for infrastructure development, human resource development, stakeholder participation and appropriate policy and regulatory framework.

Habib (2011) in a study on adoption of information and communication technology in small and medium enterprises in Cameroon verified that there is a relationship between ICT diffusion and SME performance using cross-country evidence. From these results, he found that ICT policy implementation can enhance performance and he even recommended the implementation of ICT development policies in order to improve SME growth.

The literatures on ICT policy implementation appreciate the important role that ICT policy can play in enhancing development of nations and organizations. In Kenya SASRA has also been coming up with policies to streamline operation of SACCOs. Habib (2011) also found that there is a relationship between ICT diffusion and SME performance. However, despite the fact that contributions of ICT policy implementation to performance are well documented, literature relating ICT policy implementation to performance of organizations is scanty. Specifically no study on the relationship between ICT policy implementation and performance has ever been

undertaken. Therefore the relationship between ICT policy implementation and Sacco performance remain known.

3. RESEARCH METHODOLOGY

Research Design

A research design is the methodology and procedures employed to conduct scientific research (Sharma, 2005).The research design used was a correlation research design. A correlation research is where the researcher aims to determine whether, or not and to what extent an association exists between two or more paired and quantifiable variables. Cooper & Emory (1995) observe that correlation research design is suitable because it provides rigorous and replicable procedure for understanding relationships. Correlational research on the other hand aims at investigating the existence and the degree of a relationship between two or more quantitative variables. If two variables are highly related, scores on one variable could be used to predict scores on the other variable (Mugenda&Mugenda, 2003).Therefore, the researcher collected data to determine which of the ICT variables affected performance and the relationship between performance and strategic ICT adoption.

Study Area

The study was conducted in Kisii region which encompasses Kisii and Nyamira counties. Kisii region is located in Western Kenya on latitude 00^0 41^0 S and longitude 34^0 46^0 E The region was selected because it has a relatively high number of deposit taking SACCOs (SASRA, 2013). Moreover, the researcher resides near the region hence travelling costs were reduced by conducting the study in the region.

Target Population

Cooper and Emory (1995) define population as the total collection of elements about which the researcher wishes to make some inferences while Borg and Gall (1996) define population as all members of a real set of people, event or to which a researcher wishes to generalize the results of the study. The study was a correlation research of all the DTSs in Kisii region. The target population was 45 drawn from nine deposit taking SACCOs located in Kisii and Nyamira counties. The sampling unit was the entire population comprising of the CEO and four (4) department heads.

Mugenda & Mugenda (2003) observe that a sample size is determined by the size of the population. Since the target population is nine DTSs, a sample size of 45 comprising of the Chief Executive Officers (CEOs), and four department heads were the respondents for the questionnaire.

Data Collection Methods

Both interview schedule and questionnaires were used to collect data. The interview schedule was used to get qualitative data from the CEOs on Sacco operating environment while the questionnaires were used to collect quantitative data on Sacco performance. Mugenda & Mugenda (2003) advocate for objectivity through collection of both primary and secondary data. To achieve the objective of the study, secondary data were collected. Qualitative data on Sacco

operating environment was collected through an interview schedule while data regarding the SACCOs' adoption of ICT were collected through a questionnaire.

Data Collection Procedures

A letter to collect data was obtained from the graduate school. The physical address of the SACCOs were got from County Director of Cooperatives of Kisii and Nyamira .Thereafter, a courtesy call was paid to the respective CEOs of the sampled SACCOs. An interview appointment was sought. Also, the questionnaire was pretested as championed by Mugenda & Mugenda (2003). The pretesting was done on five respondents. The data collected was treated with utmost confidence and was purely used for academic purposes.

Data Collection Instruments

A questionnaire and interview schedule were used to collect data. The questionnaire was divided into five sections (see Appendix II). The first section provided general information; the second section provided general information on performance trends; the third section was on ICT infrastructure; the fourth section focused on the ICT innovations and the fifth section was on ICT policy implementation. There was also an interview schedule.

Mugenda & Mugenda (2003) define reliability as a measure of the degree to which a research instrument yields consistent results or data after repeated trials. To ascertain the reliability of the instruments, a pilot study on one Sacco with a sample of five respondents was conducted. The questionnaire was pre-tested on the selected sample. The procedure used in pre-testing the questionnaire was similar to the actual used in the study. The reliability of the questionnaire was consequently evaluated through Cronbach's α which measures the internal consistency. Cronbach's α was established for every objective as summarized in Table 1.

Table 1 Reliability Analysis

Coefficients Scale	Cronbach's Alpha	Number of Items
ICP Policy Implementation	0.793	8
Performance	0.850	2
Overall	**0.822**	**10**

Source: Survey, 2015

In this study, the Cronbach's alphas for the each of the variables scales was tested and found to be within the minimum accepted reliability as suggested by Pallant (2012).From the findings in table 3.1, ICT policy implementation was found to be α=.793.

Validity indicates the degree to which the instrument measures the constructs under investigation (Mugenda & Mugenda, 2003). It also refers to the extent to which the instrument measures what it purports to measure. Several authors including Wynd, Schmidt and Schaefer (2003), and Grover (1997) have discussed the different approaches to content validation. The process of developing and validating an instrument is in large focused on reducing error in the measurement process. Validity of the instruments was ascertained through subjecting the questionnaire for examination by experts in research from Maseno University, Department of Business Administration.

Data Analysis and Presentation

According to Bryman and Bell (2003) data analysis refers to a technique used to make inferences from data collected by means of a systematic and objective identification of specific characteristics. Qualitative data was analyzed through content analysis .Content analysis is the systematic qualitative description of the composition of the objects or materials of the study (Mugenda & Mugenda, 2003). Descriptive statistics analysis was done on the quantitative data and most of the results were presented in tables for easy interpretation. In addition, a multiple regression analysis model was used to determine relationship between performance and its various determinants. The determinants of performance that were considered are ICT infrastructure, ICT innovations and ICT policy implementation. The dimensions of performance used in this study were growth in membership and rate of dividend.

4. RESULTS AND DISCUSSION

Qualitative and quantitative data were collected. The number of respondents who participated in this research and completely filled the questionnaires totaled to 35. This represented a response rate of 87.5%. According to Sekaran (2003), a response rate of 70% or higher is acceptable in social science research .The first part involves the profile of the respondents while the second part presents results on effect of strategic ICT adoption on performance of deposit taking SACCOs in Kisii region, Kenya.

Background of Respondents

Most of the study respondents (45.7%) had Bachelors degree .Those who had Masters were 11.4 % while those with doctorate qualification (2.9%) were the minority. This shows that the respondents were literate enough and adequately responded to the questionnaire. However, 8.6% of the respondents did not state their level of education. Table 2 summarizes distribution of the respondents by academic qualifications.

Table 2: Distribution of Respondents by Level of Education

Highest Level of Education	Frequency	Percentage	Cumulative percentage
Diploma	11	31.4	34.4
Bachelors	16	45.7	84.4
Masters	4	11.4	96.9
Doctorate	1	2.9	100.0
Total	32	91.4	
Missing system	3	8.6	
Total	35	100.0	

Source: Survey, 2015

On the other hand, distribution by work experience revealed that majority of the respondents had worked for their respective Sacco for over 3 years. A summary of the distribution is captured in the Table 3.

Table 3: Distribution Respondents by Work Experience

Number of Years Worked in Sacco	Frequency	Percent	Valid Percent	Cumulative Percent
Above three years	21	60.0	60.0	60.0
Between 2-3 years	6	17.1	17.1	77.1
Less than 1 year	8	22.9	22.9	100.0
Total	35	100.0	100.0	

Source: Survey, 2015

Deposit Taking SACCOs Operating Environment Qualitative Data Analysis

The interview schedule was used to solicit responses from respective Sacco Chief Executive Officers (CEOs) on the various issues concerning the operating environment. On the issue of technology used by different DTSs to communicate to members, the researcher found out that majority of DTSs use posters, banners and text messages to communicate to members. Social media particularly the internet has not been embraced by the SACCOs to communicate to members. However, there was a general agreement that technology can improve efficiency in operations of SACCOs. Some of the new technology that have been embraced by some of the SACCOs include automated teller machines (ATMs) and M PESA .

Being that the DTSs in Kisii region are mainly farmers based, majority have introduced school fees products because they noted a majority of their members opting for bank loans thus denying them the interest on loans they desperately need for their survival. The stability of the operation environment was observed to be highly turbulent due to competition from SACCOs and micro-finance institutions especially Juhudi Kilimo. Moreover the study found that environment turbulence is also brought about by uncertain whether conditions e.g. prolonged drought which was reported to greatly affect farmers' ability to service their loans through proceeds from sale of tea.

On the issue of technological challenges, the study found out that the major technological challenges that the DTSs face in their operations are resistance by employees to embrace technology and the breakdown of computers resulting into loss of data in the process of formatting the computers. Despite the challenges, DTSs have adopted strategies such as computerization of the Sacco's services by enhancing corporate investment in emerging technology and updating of the information technology (IT) systems continuously to be in line with the current technological advancements.

These findings are in congruence with the literature that acknowledges the important role that ICT can play to make an organization to remain competitive in an environment which is turbulent. For example, the findings support Barney (2001) who posited that resource based view of the firm explains its ability to deliver sustainable competitive advantage. Adoption of technology by a majority of the SACCOs also supports Rodgers (2003) view that adoption is a decision to make full use of an innovation as the best course of action available. The fact that social media particularly the internet has not been embraced by the SACCOs further support Rodgers (2003) view that not all innovations are adopted even if they are good and it may take a long time for an innovation to be adopted.

Descriptive Statistics of Study Variables

Table 4 presents the descriptive statistics and the distribution of the variables considered in this research . The descriptive statistics considered were minimum, maximum, mean and standard deviation while study variables considered were performance as dependent variable and independent variables namely ICT infrastructure, ICT innovation and ICT policy implementation.

Table 4: Descriptive Statistics of Study Variables

	N	Minimum	Maximum	Mean	Std. Deviation
PERFORMANCE	35	18.00	38.00	29.8857	5.32349
ICT Policy Implementation	35	12.00	40.00	29.4571	8.04525
Valid N (list wise)	35				

Source: Survey, 2015

From Table $, the N column represents the total number of respondents which stood at 35. The mean for ICT infrastructure for the eight SACCOs was 45.5429.The mean is the average of the set of scores (Mugenda & Mugenda, 2003). The lowest level recorded for ICT infrastructure was 18.00. On the other hand a highest value of 38.00 was also recorded. ICT Infrastructure had a standard deviation of 14.32058 as per the analysis. The standard deviation is defined as the extent to which scores in a distribution deviate from their mean or average (Mugenda & Mugenda, 2003).The standard deviation therefore involves subtracting the mean from each score to obtain the deviation. If the value for standard deviation is small it implies that the variance is small because the scores are close together and vice versa. From table 4.3 ICT infrastructure had the highest standard deviation of 14.32058 implying that the variance is large hence the scores for ICT infrastructure are more spread out.

Overall, the level of ICT policy implementation had a mean of 29.4571 and a standard deviation of 8.04525 implying that the variance is relatively small hence the scores for ICT policy implementation are less spread out.

Association between Study Variables

Correlation technique is used to analyze the degree of relationship between variables (Mugenda & Mugenda, 2003). Since it important to establish the strength of relationship between the variables, a Pearson correlation test was chosen as the most appropriate. The relationship is interpreted by reading the Pearson correlation value on the correlation table. The value lies between -1 and 1. This strength is established by looking at the variation of the value in terms of how far or close it is to zero but within the limits of -1 and 1. Performance as a dependent variable against independent variable ICT Policy implementation resulted in Table 5.

Table 5: Association between ICT Policy Implementation and Performance

		Performance	**ICT Policy Implementation**
PERFORMANCE	Pearson Correlation	1	
	Sig. (2-tailed)		

	N	35	
ICT Policy Implementation	Pearson Correlation	.386*	1
	Sig. (2-tailed)	.022	
	N	35	35

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

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Survey, 2015

A value of r = 0.386 for the Pearson correlation suggests a strong relationship between the ICT policy implementation and performance. Table 5 gives a summary of performance and its various determinants. Therefore all the three independent variables namely ICT infrastructure, ICT innovation and ICT policy implementation had a strong positive relationship with performance.

To balance the effect that the number of independent variable has on the coefficient of multiple determinations the researcher found the adjusted co efficient of determination given by adjusted R^2. From the adjusted determination coefficients, generally moderately weak relationships were established between dependent and independent variables. The adjusted R^2 value of 0.0850 was established and this implies that 8.5% of the variation in performance is attributed to the changes in ICT infrastructure, ICT innovation and ICT policy implementation.

A regression analysis was also conducted on the study variables. According to (Mugenda& Mugenda, 2003) a regression analysis can be conducted to find out whether the independent variables predict the dependent variable. The regression model contained ICT policy implementation as the independent variable and the dependent variable (Sacco performance).

Effect of Study variables on Performance

F-test was used to make simultaneous comparisons (thus, testing whether a significant relation exists between variables (dependent and independent variables); thus, helping in bringing out the significance of the regression model(Mugenda & Mugenda,2003). The information provided by the regression identities for the sum of squares and the degrees of freedom and the F – statistic are summarized in an analysis of variance (ANOVA) in Table 6.

Table 6: Analysis of Variance (ANOVA[a])

Model		Sum of Squares	df	Mean Square	F	
1	Regression	107.975	1	107.975	4.255	.032[b]
	Residual	915.911	33	25.926		
	Total	963.543	34			

a. Dependent variable: Performance

b. Predictors: (constant), ICT infrastructure, ICT innovations, ICT Policy Implementation

Source: Survey, 2015

The value of the F statistic, 4.255 indicates that the overall regression model is significant. Table 7 shows the summary of coefficients for ICT policy implementation, according to the multiple regression analysis conducted on the data.

Table 7: Summary of Coefficients

Model	Unstandardized Constants		Standardized Constants	t	Sig.
	B	Std. Error	Beta		
Constant	23.288	3.546		6.711	.000
ICT Policy Implementation	.255	.106	.386	2.442	.022

Source: Survey, 2015

The study model was therefore:
Performance = 23.288 + 0.255ICTPolicy
(.000) (.022)

Therefore, from the equation, a calculation of the estimated increase in level of performance was done as follows.

On average:
ICT policy implementation = 29.4571
Performance = 23.288 + 0.255 (29.4571)= 30.7996

At 5% level of significance and 95% level of confidence, a positive coefficient β=0.255 (p=.022) was established between ICT policy implementation and deposit taking SACCOs performance. This suggests that a unit increase in SACCOs ICT policy implementation will lead to a 25.5% units increase in SACCOs performance. The values p=0.022 (sig. for ICT policy implementation) qualified to satisfy the significance test being that it was below p=0.05. For this reason the null hypothesis that ICT policy implementation has no effect on performance was rejected. Rejection of the null hypothesis indicates that ICT policy implementation has a significant effect on performance. This is when other factors that may influence the level of performance such as Sacco size are not taken into account. These other factors are accounted for by the standard error which is 0.106 for ICT policy implementation. The results suggest that an improvement in the level of ICT policy implementation will lead to an increase in the level of Sacco performance.

The literature on ICT policy implementation appreciated the important role that ICT policy can play in enhancing development of nations and organizations. For example University of Manchester (2010) observed that unless deficiencies in ICT policies are adequately addressed, ICT may continue to fall short in its constructive effect on performance of various organizations. The argument was supported by Habib (2011) who found that there is a relationship between ICT diffusion and SME performance. The study found that ICT policy implementation has a positive effect on performance of SACCOs

The findings support Habib (2011) who recommended that there is need for financial institutions to implement ICT policies for them to grow. University of Manchester (2010) also observed that lack of ICT policies in an organization can lead to incoherence. Therefore, the significant results of ICT policy implementation effect on deposit taking SACCOs performance presented new knowledge.

5. Conclusion

Based on the results, it was concluded that ICT policy implementation had a positive effect on performance of deposit taking SACCOs. Therefore, improved ICT policy implementation will also lead to improved performance of deposit taking SACCOs. It is recommended that ICT policies implementation be carried out for deposit taking SACCOs performance improvement.

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