



ISSN 2278 – 0211 (Online)

Extent to Which Saccos Have Invested in Information Technology to Achieve Sustainable Competitive Advantage over Their Rivals: A Case of KISII County, Kenya

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Abstract:

Information is an indispensable resource to an individual, organization, a country or even the world at large. People are always in need of communicating. Communication is an even more prominent activity in our working lives. Information technology components have proved themselves in enhancing the speed, accuracy and efficiency with which management have achieved in handling huge volumes of data at their disposal on daily basis with minimum fatigue. Information technology in organizations is therefore viewed lately as a core competence with which organizations can use to outwit their rivals in the business industry. The purpose of this study was to determine the extent to which SACCOs operating in Kisii County have invested in information technology to achieve sustainable competitive advantage over their rivalry. Thirty (30) SACCOs were studied with a target population of one hundred and twenty (120) respondents. A sample size of 92 respondents was obtained using simple random sampling technique. Structured questionnaires were used to collect data that was then subjected to Microsoft Excel and Statistical Package for Social Sciences (SPSS) software (Version 21) for analysis. The findings showed that 78.3% of the respondents were male while 21.7% of the respondents were female. Majority of the respondents had an age bracket of between 36-55 years translated to 68.3%. The findings further revealed that, 30% of the respondents were members of business SACCOs, 23.3% were members of Civil Servants' SACCOs, 22.3% were members of Farmers' SACCOs, and 13.3% were members of Company SACCOs while the remaining 10% were members of social welfare SACCOs. It was found that, 65.2% of responses did not use Information technology much. The respondents were satisfied with the competitive strategies adopted; results depicted satisfaction of members with the role of Information technology in enhancement of sustainable competitive advantage. Was deduced, managers to embrace Information technology in their day-to-day running of their activities for a competitive edge.

Keywords: Information technology, SACCOs, sustainable, competitive advantage

1. Introduction

Information is an indispensable resource to an individual, organization, a country or even the world at large. People are always in need of communicating. Communication is an even more prominent activity in our working lives. People perform their work with other people in an organization by interacting with each other. We are rarely alone at work; When we are then, we are usually reading, writing, telephoning, calculating, studying graphs, tables, data of some kind-in other words communicating (Burton, 1980). According to Guto, (2005), is that, decision making at all levels or hierarchy in an organizations; top, middle and low require relevant information for them to operate effectively.

Information technology (IT) components have therefore proved themselves in enhancing in the speed, accuracy and efficiency with which management have achieved to handles the huge volumes of data at their disposal on daily basis with minimum fatigue. IT in organizations is viewed lately as a core competence with which organizations can use to outwit other rivals. With proper utilization of IT leads to an organization achieving competitive advantage over its rivals (Beeharry & Schneider, 1996). A crucial element for a successful organization will be the information systems that provide management with the information that it needs. Such systems include those that provide accurate and timely data. Systems that are flexible and running as the firm adjusts its business strategy to take advantage of the opportunities in the market and systems that can help firms to tackle the challenges of their market (Allen, 1990).

Managers therefore in their daily activities require pertinent, relevant, accurate and timely information to plan, control and coordinate the activities of their organizations. The provision of timely and accurate information to managers of organizations therefore becomes critical for 21st century business firms who have to survive in the competitive business environment (Guto, 2005). The first challenges management faces in planning and operating their organizations are today handled diligently by use of modern information communication technology (ICT). In the work place the impact of IT is to be seen most powerfully in the huge range of computers and servers that now form part of furniture or background of every office or factory (Cole, 2004).

Information Communication Technologies (ICTs) are forms of technologies that facilitate communication and the processing and transmission of data by electronic means. These are tools for increasing information flows and empowerment of people. ICT has recently emerged as a medium for communication and exchange as well as a tool for development. Older ICTs include; telephone, radio and television. Of late, telephones, have improved. The landline used to be discriminative since it only served the "haves". These days, the cell-phone (mobile) has revolutionized technology and has opened up remote places and all sundry. It has extended into such products as money transfer m-banking and linking of banks by electronic means, e-banking. The challenge is all the SACCOs are yet to embrace the concepts of m-banking and e-banking. E-banking provides a variety of attractive possibilities for remote account access including; Availability of inquiry and transaction services around the clock, worldwide connectivity, easy access to transaction data both recent and historical and direct customers control on international movement of funds without intermediation of financial institutions in customer's jurisdiction. (Mohit, 2009)

In Kenya, the first co-operative society, the Lumbwa co-operative society, was founded in 1908 by European farmers with the objective of purchasing fertilizers, chemicals, seeds and other farm inputs and then market their produce to take advantage of economies of scale. In 1930, Kenya farmers association (KFA) was registered as a co-operative society to take over the role of Lumbwa co-operative society. At independence, 1963, there were 1,030 co-operative societies with 655 being active. Their membership totaled 355,000. In 1964, two SACCO societies were registered in Kenya to mobilize domestic savings. This is the time the Kenya federation of co-operatives was registered as an umbrella body to many societies. Co-operative bank was established a year later-1965. KUSCCO was founded in 1973.

1.1. Conceptual Framework

It is conceptualized that investment in IT would lead to SACCOs achieving SCA. Where IT is utilized, by purchasing the various forms of IT and putting them into use by SACCOs effectively there would be an increase in level of interests realized by SACCOs and capital base will increase and number of members will increase and be deterred from withdrawing to look for efficient services elsewhere. Where IT is underutilized or not used at all, the members depict a large exodus to banks MFIs and other more efficient SACCOs which have invested in IT and there could be less competition with other financial service providers.

The various forms of IT (Independent variable) have to interplay with various aspects of SCA (dependent variable) for meaningful relationship to be inferred between the two variables. For example where computers are adequately used, efficient, fast and accurate services would be realized by members who cherish the quality services and eventually be retained contributing to increased interests. The introduction of the ATM helped avert the much exodus of members of SACCOs to banks where the service was introduced earlier leaving alone the SACCO link cards. Keeping of members' files became much easy with the introduction of computers in SACCOs. Loan repayment can lately be done using the cell phone. M-banking and e-banking services embraced by financial institutions have made access to one's account convenient, cheap and easy. Let alone savings of time wasted in physically visiting these institutions. IT literate staff has made financial institutions to achieve much investment in IT since they use the IT forms wielded by the same institutions diligently. They have been able to come up with new products and attributes which are unique and versatile. The computer is one such form of IT which is versatile. It has largely contributed to quality services financial institutions offer. The interplay among the elements of the two variables is as shown in the Figure 1.

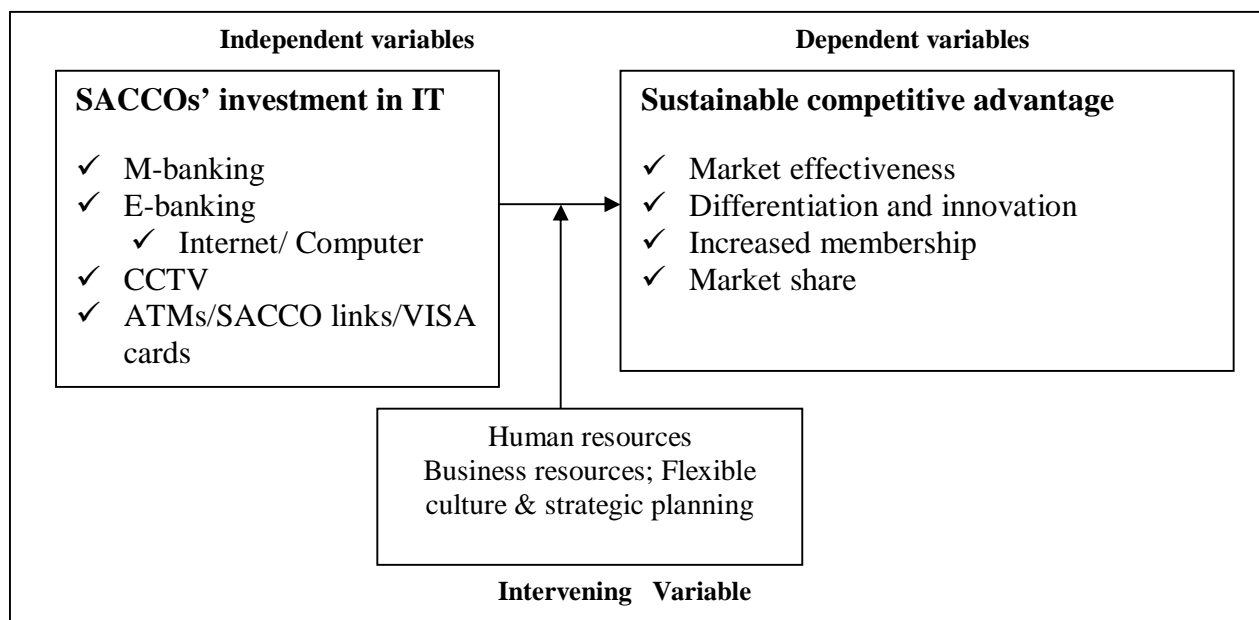


Figure 1: Conceptual framework

2. Materials and Methods

2.1. The Study Area

The study was conducted in Kisii County which is located in the western Kenya. It lies between latitude 0 30'and 1 0'South and longitude 34 38'and 35 0'East. The County covers an area of 1,317 km² with a total population of 1,152,282 and 245,029 households. Kisii County is about 400 km west of the Capital city Nairobi. It is endowed with a number of SACCOs serving all cadres of people. There are five categories of SACCOs; farmers' SACCOs, civil servants' SACCOs, business SACCOs, company SACCOs, and social welfare SACCOs such as those affiliated to churches.

2.2. Target Population

The study targeted all the five categories of the 30 SACCOs in the region as illustrated in Table 1. The respondents comprised; the general manager, marketing manager from each SACCO and two SACCO staff members from each of the five categories, making 120 targeted respondents.

SACCOs	Number of SACCOs	Number of respondents
Business SACCOs	6	24
Civil servants SACCOs	5	20
Company SACCOs	4	16
Farmers' SACCOs	12	48
Social welfare SACCOs	3	12
Total	30	120

Table 1: SACCO category
Source: KUSCCO and MCD KISHI, 2011

2.3. Sample Size and Sampling Selection

A simple random sampling was used to obtain a sample of 92 respondents from a target population of 120 respondents. The study applied Yamane (1967) formula to yield a representative sample size. Data collection questionnaire was used as research instrument. Questionnaires administered by the researcher were used to collect data from the respondents on various information technology employed in their SACCOs to manage competition from their rivals. The respondents were informed of the purpose of the study and the need to respond honestly. This was to ensure that the data collected is reliable and non-biased. Data were analyzed using Microsoft excel and Statistical Package for Social Science (SPSS) (version 21) software for analysis.

3. Results and Discussions

3.1. Questionnaire Return Rate

Out of 92 questionnaires administered to the respondents comprising 46 managers and 46 SACCO members, a total of 60 questionnaires were successfully completed and returned to the researcher by respondents, translating to 65.2 % return rate which was considered sufficient enough.

3.2. Demographic Characteristics of the Respondents

3.2.1. Gender of the Respondents

Out of the 60 respondents who participated in this study 47 were male which translated to 78.3% while 13 respondents were female which translated to 21.7% (Table 2).

	Gender	Frequency	Percent
	Male	47	78.3
	Female	13	21.7
	Total	60	100.0

Table 2: Respondents' gender

3.2.2. Age of the Respondents

The findings indicated that majority of the farming population in Kisii County had an age bracket of 36-55 years which is translated to 68.3% followed by the youth age between 18 - 35 years translated to 21.7%, between the age of 56-69 years represented by 6.7% and over 70 years represented by 3.3% (Table 3).

	Age of the respondents (Years)	Frequency	Percent (%)
	18-35	13	21.7
	36-55	41	68.3
	56-69	4	6.7
	>70	2	3.3
	Total	60	100.0

Table 3: Respondents' age

3.3. Categories of SACCCs in Kisii County

About 30% of the respondents were members of business SACCOs, 23.3% were members of Civil Servants' SACCOs, 22.3% were members of Farmers' SACCOs, and 13.3% were members of Company SACCOs while the remaining 10% were members of social welfare SACCOs (Table 4).

	Proportions of categories of SACCCs	Frequency	Percentage (%)
	Business SACCOs	18	30.0
	Civil servants SACCOs	14	23.3
	Company SACCOs	8	13.4
	Farmers SACCOs	14	23.3
	Social welfare SACCOs	6	10.0
	Total	60	100.0

Table 4: SACCO's categories in KISII County

3.4. Forms of IT Utilized by SACCOs

The findings showed that, 8 responses representing 9.0% indicated that the SACCOs used e-banking, 4 responses representing 4.5% indicated that the SACCOs used the internet services, 8 representing 9.0% indicated that the SACCOs used m-banking, 20 responses representing 22.4 indicated that SACCO link/visa cards and ATMs were being utilized and 3 representing 3.4% indicated that their SACCOs utilized CCTV. A majority of 51.7% indicated that their SACCOs did not utilize any forms of IT given (Table 5). These results are a pointer to non-use of IT by SACCOs.

Respondents	e-banking	Internet	m-banking services	SACCO link/Visa cards	ATM	CCTV	None of the above	Total
Managers	4	2	4	4	4	3	22	43
Staff Members	4	2	4	6	6	0	24	46
Total	8	4	8	10	10	3	46	89
Percent	9.0%	4.5%	9.0%	11.2%	11.2%	3.4%	51.7%	100%

Table 5: Forms of IT utilized by SACCOs

A further analysis was done by the use of Chi-square test to determine if there was a significant difference between the managers' and SACCO staff members' identification of the forms of IT utilized by their SACCOs. The results are as shown in Table 6. The table in value of Chi-square for 6 degrees of freedom at 5% level of significance is 12.592. The calculated value of chi-square 3.514 is much less than this table value. This means that responses on the forms of IT utilized frequently by SACCOs were not different but were similar (Table 6).

Respondents & Forms of IT	OBSERVED O	EXPECTED E	$\frac{(O - E)^2}{E}$
MANAGERS			
e-banking	4	3.87	0.004
Internet	2	1.93	0.003
m-banking services	4	3.87	0.004
SACCO link/Visa cards	4	3.87	0.004
ATM	4	3.87	0.004
CCTV	3	1.45	1.657
None of the above	22	22.22	0.002
MEMBERS			
e-banking	4	4.13	0.004
Internet	2	2.07	0.003
m-banking services	4	4.13	0.004
SACCO link/Visa cards	6	5.17	0.133
ATM	6	5.17	0.133
CCTV	0	1.55	1.550
None of the above	24	23.78	0.009
TOTAL	-	-	3.514

Table 6: Computation of chi-square value for the forms of IT utilized by SACCOs

Also, a further analysis using Chi-Square test was done to test if there was a significant difference in the forms of IT utilized by the various types of SACCOs. The results are shown in Tables 7

Types of SACCOs	e-banking	Internet	m-banking services	SACCO link/Visa cards	ATM	CCTV	None of the above	Total
Business SACCOs	0 1.78	0 0.89	1 2.00	1 1.11	2 6.89	0 0.89	14 8.44	18
Civil Servants SACCOs	8 3.46	4 1.73	8 3.89	0 2.16	8 5.62	4 1.73	3 16.52	35
Company SACCOs	0 0.79	0 0.40	0 0.89	0 0.49	0 1.28	0 0.40	8 3.75	8
Social welfare SACCOs	0 0.59	0 0.30	0 0.67	0 0.37	0 1.21	0 0.30	6 3.75	6
Farmers SACCOs	0 0.89	0 0.69	0 1.56	4 0.86	3 2.25	0 0.69	7 6.57	14
Total	8	4	9	5	13	4	38	81

Table 7: Chi-Square Test for differences in forms of IT utilized by different SACCOs

$$X^2 = \sum \frac{(\text{observed} - \text{expected})^2}{\text{expected}}$$

$$= 1.78 + 0.89 + 0.50 + 0.01 + 3.47 + 0.89 + 3.66 + 5.96 + 2.98 + 4.34 + 2.16 + 1.01 + 2.98 + 11.06 + 0.79 + 0.40 + 0.89 + 0.49 + 1.28 + 0.40 + 4.82 + 0.59 + 0.30 + 0.67 + 0.37 + 1.21 + 0.30 + 1.35 + 0.89 + 0.69 + 1.56 + 11.46 + 0.25 + 0.69 + 0.03 = 71.12$$

The table value of chi-square for 24 degrees of freedom at 5% level of significance is 36.42. The calculated value of chi-square (71.12) is much higher than this table value. This means that the forms of IT utilized by SACCOs were significantly different. Acquiring the listed forms of IT, SACCOs need to commit funds to acquire, install and maintain their operation. To assess the extent to which the SACCOs have invested funds in the various forms of IT, respondents were requested to indicate their level of satisfaction with their SACCOs' investment in IT. The results of the analysis are as shown in Table 8.

The findings revealed that majority of respondents were least satisfied with the SACCOs' investment in IT as indicated by the aggregate mean rating of 2.00 representing least satisfied level. However, satisfaction with investment in ATMs was rated highest with a weighted average of 2.20 while satisfaction with m-banking was rated last with a weighted average of 1.85. Kisii County have not adequately invested in IT hence might not be offering their members the opportunity to enjoy the benefits that accrue from IT. This finding is in line with the finding of non-utilization of many of IT by SACCOs (Table 8)

Forms of IT	Not at all 1	Least satisfied 2	Fairly satisfied 3	Satisfied 4	Very satisfied 5	$\sum f_i$	$\sum f_i w_i$	$\frac{\sum f_i w_i}{\sum f_i}$
e-banking	28	19	6	6	1	60	113	1.88
Internet	25	17	10	8	0	60	121	2.02
m-banking services	28	16	13	3	0	60	111	1.85
SACCO link/Visa cards	22	19	13	3	3	60	126	2.10
ATM	22	12	21	2	3	60	132	2.20
CCTV	24	20	12	2	2	60	118	1.97

Table 8: level of satisfaction with SACCOs' investment in IT

The respondents were further asked to indicate their level of satisfaction with the revenue generated from IT related investments by their SACCOs. The results indicated that, on aggregate the respondents were fairly satisfied with the revenue generated from their investment in IT with a weighted mean index of 1.78 representing fairly satisfied level. Comparatively, respondents were more satisfied with income from use of SACCO link/visa cards with a weighted average of 2.33. This was followed by income from internet with a weighted average of 1.97. The findings show that the revenue generated from adopted forms of IT is low. This finding is in line with the finding of low investment in IT by most SACCOs in Kisii County (Table 9).

Forms of IT	Least satisfied 1	Fairly satisfied 2	Satisfied 3	Very satisfied 4	Most satisfied 5	$\sum f_i$	$\sum f_i w_i$	$\frac{\sum f_i w_i}{\sum f_i}$
e-banking	24	24	8	4	0	60	112	1.87
Internet	24	22	6	8	0	60	118	1.97
m-banking services	32	25	1	2	0	60	93	1.55
SACCO link/Visa cards	12	26	13	8	1	60	140	2.33
ATM	19	28	11	2	0	60	116	1.93
CCTV	57	3	0	0	0	60	63	1.05

Table 9: Satisfaction with revenue from IT investment

The respondents were asked to indicate how important the factors given are in their SACCOs' adoption of IT. The results showed that, the respondents considered the adoption of IT to be important in increasing speed of service delivery, efficiency and convenience in accessing SACCO services; saving on SACCO running costs; increasing their level of competitiveness and keeping abreast with changes in technology with an aggregate mean of 3.35. However increasing efficiency in offering SACCO services was rated to be more important with a weighted average of 4.11 representing very important. Keeping abreast with changes in technology was rated last as an importance of adopting IT with a weighted average of 2.42 (Table 10).

Factors	Least important 1	Fairly important 2	Important 3	Very important 4	Most important 5	$\sum f_i$	$\sum f_i w_i$	$\frac{\sum f_i w_i}{\sum f_i}$
Increase speed of service delivery	0	13	20	21	6	60	200	3.33
Retention of members	0	0	13	34	13	60	240	4.00
Increase efficiency in offering services	1	0	10	29	20	60	247	4.11
Increase convenience in accessing SACCO services	0	19	19	10	12	60	195	3.25
Save on SACCO running costs	1	19	21	19	0	60	178	2.97
Compete perfectly	0	13	22	15	10	60	202	3.37
Keep a breast with changes in technology	0	37	21	2	0	60	145	2.42

Table 10: Importance of the given Factors for the adoption of IT by the SACCOs

5. Conclusions and Recommendations

The findings showed that, SACCOs in Kisii County have not adequately invested in IT, a scenario that explains the finding that SACCOs have not adopted the use of many forms of IT such as e-banking, m-banking, ATMs and many others, the study concluded that most SACCOs in Kisii County have not offered their members the opportunity to enjoy the benefits that accrue from IT and are missing out on enjoying the benefits that accrue from the use of IT.

Also the study established that the SACCOs rate average in terms of their level of competitiveness compared to their competitors. The study further established that the SACCO membership has been dwindling over the years. The study therefore concluded that SACCOs have not been effective in pursuing the market share strategy. However as indicated by the findings, SACCOs have been very effective in pursuing the cost leadership strategy which has been mostly through lower charges as compared to other financial institutions.

Based on the findings, adoption and use of IT has a positive relationship with the level of competitiveness, the study revealed that IT use has a significant role to play in enhancing competitiveness? The study therefore concludes that the poor pursuance of IT as a strategy to improving level of competitiveness may be a cause of the low level of competitiveness amongst SACCOs. The study therefore recommends that SACCO managers embrace and incorporate IT use in their efforts to gain competitive advantage over their other rivals in the market. The SACCOs should appreciate these findings' contribution to how they should sustain their competitive advantage through their investment in IT resources. In their budgetary allocations SACCOs should increase their investment allocations on various forms of IT so as to be able to provide their members a variety of services efficiently and effectively.

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