EFFECT OF INFORMATION TECHNOLOGY ADOPTION ON THE FINANCIAL PERFORMANCE OF SAVINGS AND CREDIT COOPERATIVE SOCIETIES IN BOMET COUNTY, KENYA

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Abstract: The study sought to establish the effect of information technology adoption on the financial performance of SACCOs. The study was guided by agency theory where a cross sectional descriptive research design was used. A sample size of 308 were purposively sampled from a target population of 1338 who were top management staff working in SACCOS where responses were received from 273 respondents indicating a response rate of 88.6%. Primary data was collected using structured questionnaire which was administered to the sampled respondents. Content validity of the instrument was determined through expert judgment which involved discussing the items in the instruments with the supervisors and lecturers. Their suggestions for change were incorporated in the final instrument that was used in the actual study. The reliability of the research instruments was established through a pilot study done in SACCOs in Kericho County through a testing and retesting and Cronbach's Alpha was used to test the internal consistency of the research instruments where a co-efficient values of 0.886 was actualized denoting that the instrument was reliable. The findings of this research may help the co-operative officials, members and even the staff of the Ministry of Co-operative Development in designing financial growth strategies. The findings and conclusions of this study may be of significance to the management of SACCOs who will be able to appreciate how financial performance of their SACCOs is influenced by the study variables. Based on the findings the management of SACCOs can be able to understand the strategies to be taken in order to improve the financial performance of the respective SACCOs in their counties and in Kenya at large.

Keywords: Financial Performance of SACCOs, Savings and Credit Cooperative Society, Information Technology.

1. BACKGROUND TO THE STUDY

The SACCO sector face stiff competition from other financial service providers; particularly with the growth in popularity of the digital credit services that principally specializes in unsecured micro-credit loans, a forte hitherto associated with SACCOs. The implementation of the Banking (Amendment) Act, 2016 which set the interest rates payable on deposits held by commercial banks to not less than seventy (70%) percent of the CBK base rate also implies that the comparative advantage of good interest rates or returns on deposits previously associated with SACCOs is slowly being encroached. Thus competition for deposits from the market will become stiffer and stiffer by the day thus affecting the financial performance of these SACCOs. SACCOs must delve deep into the innovative world of repackaging their financial service and product offerings to address issues of efficiency; customer convenience; reliability of their services and improved accessibility by adoption of information technology; public confidence by engaging qualified employee; and security of customer data and information by having risk management strategies in place.

A Savings and Credit cooperative society is an autonomous association of persons who have voluntarily come together with a common purpose of pooling their resources together for mutual economic and social benefit. (Swiss contact co-

operatives tool kit 2010). The idea of modern day co-operative was conceived in Europe and parts of America in the early 1800s. In 1844 a group of 28 men popularly known as the "Rochdale Pioneers" in England got together and formed the first co-operative society (Birchall, 1997). They formulated some ten principles to enable them open and run a consumer co-operative shop. These principles created the foundation of modern worldwide co-operative movement. Since then, many countries have embraced co-operatives as ventures of poverty eradication and wealth creation alongside other private sector players. Globally, nearly a billion people of the world 6 billion population are members of a cooperative. Half of the world population had their livelihood made secure to a significant extent by the cooperative enterprise. Cooperatives in the developed countries are today multibillion dollar empires as reflected by high turnovers and growing membership (Schoars, 2009).

The first Co-operative Society in Kenya was Lumbwa Co-operative Society formed in 1908 by the European Farmers with the main objective of purchasing fertilizer, chemicals, seeds and other farm inputs and to marketing their produce to take advantage of economies of scale (Kenya Union of Saving and Credit Co-operatives (KUSCCO), 2016). In 1930, Kenya Farmers Association was registered as a Co-operative Society to take over the role of supplying farm inputs initially done by Lumbwa Co-operative Society (Gardeklint, 2009). Important to mention is that Co-operatives were eventually introduced, recognized and controlled by the Government of Kenya (KUSCCO, 2017). From independence, the numbers of co-operative societies have continuously grown. SACCOs comprising over 50% of all cooperatives and as financial institutions play a critical role of financial intermediation in the financial landscape focusing mostly on personal development (SACCOs Review, 2012).

Generally, the SACCO sub-sector is on the growth regime. For instance, in December 2017, the total assets for the SACCO sub-sectors stood at Ksh.442 billion, representing a growth of 12.4% from the Ksh.194 billion recorded in 2010. During this period, the growth in assets was attributed mainly on member deposits and share capital at Ksh.164 billion comparing favourably with loans and advances which accounted for Ksh.331.2 billion representing an increase of 11.29%. Currently SACCOs have mobilized over Kshs.305.3 billion in savings representing an increase of 12% (SASRA, 2017). The SACCOs are found in almost all sectors of the economy and about 80% of the Kenyan population derives their income either directly or indirectly through SACCO initiatives.

1.1 Statement of the Problem

In Kenya the co-operative movement contributes over 20% in the growth of this country hence, the growth and survival of the SACCOs is important in the country as they enhance financial accessibility to majority of Kenyans. SACCOs need to be aware of the main issues that affect their financial growth and how they can be addressed. This will lead to better organizations in terms of competitiveness and growth. In practice, SACCOs in Kenya face stiff competition from other players in the financial services sector like commercial banks, micro-finance institutions, shylocks, and investment groups due to the interest rates they charge their customers. Out of the approximate population of 41 million, a significant 3.1 million people are modest active members in SACCO enterprises (SASRA, 2017). However, despite the significant government initiative to support cooperative movements through legislation, a significant 3457(51%) of the SACCOs are not operational.

The high failure rate of SACCOs continues to frustrate Sustainable Development Goals (SDGs) and Vision 2030 objectives of increasing financial inclusion (Pollet, 2013). Lack of adoption of information technology has led then not to meet set objectives and exceed customer satisfaction. For many SACCOs however, their financial objectives are not easily defined as they are basically user-owned and user controlled organizations that aim to benefit their members. As a result most are run by the employees themselves even if they are not professionally able to do so hence they mostly fail to take into account what really ails them so that they can be addressed. This study therefore sought to establish the effect of information technology on the financial performance of SACCOs.

1.2 Information Technology Adoption and Financial Performance of SACCOs

Information technology used refers to the tools and facilities involved in the processing, analyzing, storing and retrieving of information. Improving the ability of consumers to choose between competing suppliers of products depends mostly on the technology involved in service delivery. The investment on information technology (IT) in the service sector has been criticized by economists Hackett (1990) and Roach (1991) for not showing a corresponding improvement in productivity similar to that observed in manufacturing. However, following the publication of the Hammer and Champy (1993) book on reengineering and the extensive redesign of service processes that followed, using information technology as the enabler, we feel it is time to revisit the debate on the contribution of IT in the service sector.

Zeithaml (2010) viewed improvements in service as being critical elements of a competitive edge in the 1990s, which in turn can be facilitated by improvements in information technology. They point out that a marriage of high tech and high touch is important, and that decisions regarding the types of technology to employ should not take precedence over strategic considerations. It is generally believed that information technology has a positive impact on a firm's performance, though some caution has been mentioned regarding replacing employees in favor of technology (Urgo 2006). Furthermore, Rubenstein and Geisler (2010) note that to use information technology effectively, one must invest in human resources as well as technology.

Concerning the effect of information technology on the operations of service firms, Heskett (1990) points out that the use of information technology will affect both the customer and the provider of services. Studies concerning the effect of information technology on management strategy and marketing have been conducted. Mathe and Dagi (2006) found that the use of information technology contributes to the success of the implementation of international strategies in service industries. According to Martell (2008), information technology will accelerate changes in how marketing conducts its activities. Specifically, it will enable firms to: (1) track competitors' pricing more efficiently and determine its own pricing structure; (2) conduct market research more accurately; and (3) communicate and relay information more efficiently to others. Porter and Millar's (1985), study asserts that utilization of information technology changes the production process, reduces costs, widens the arena of competition, and facilitates the creation of new business.

Jackson (2010), holds a similar view, closely relating information technology and competitive advantage and arguing that developed nations should utilize information technology to compete effectively with low-priced competitors from developing countries. On the other hand, Bonk (2006) states that management of small and medium-sized firms must utilize computer technology, information resources, and telecommunications in operating their firms in order to survive in the era of globalization. To become effective niche players, they must utilize such technology in differentiating their products, improving quality, and providing superior services.

According to Courtland and Thill (2001), Communication is the process of sending and receiving messages. The essence of communication is sharing, that is providing data, information and insights in an exchange that benefits both one and the people with whom one is communicating. This is very essential especially in service providers like SACCOs. Effective communication helps business in numerous ways. These benefits include; stronger decision making and faster problem solving, earlier warning of potential problems, increased productivity and steadier workflow, stronger business relationships, clearer and more persuasive marketing messages, enhanced professional images for both employers and companies, lower employee turnover and higher employee satisfaction, and better financial results and higher return for investors. Effective communication strengthens the connection between a company and all of its stakeholders, suppliers, neighbors, the community, and the nation.

However taking advantage of technology requires time, energy, and frequent improvement of skills. The growth and development of information and communication technologies (ICTs) have led to their wide diffusion and application, increasing their economic and social impact. According to Gary and Philip (1998), through ICT since the early 1990s, Bank of America executives have been letting employees order supplies from their desktop computers, but they were using old-fashioned system that was expensive and difficult to operate.

1.3 Information Technology Adoption on Financial Performance

The respondents were asked if their SACCO had; internet connection; website; website and SACCO link card and the response is as per Table 1.

Technology	Yes	No
Is your SACCO connected to internet	169 (62%)	104 (38%)
Do you have a SACCO Website?	116 (43%)	157 (57%)
Do your SACCO have Mpesa Service?	115 (42%)	158 (58%)
Do members have SACCO Link Card?	80 (29%)	193 (71%)

Table 1: Use of Information Technology

Source: Research Data (2020)

Table 1 shows that majority of the SACCOs 169 (62%) had internet connectivity while 104 (38%) of the SACCOs were not having internet connection. SACCOs which had website were 116 (43%) while those which did not have website were 157 (57%). SACCOs which had Mpesa intergreted services were 115 (42%) while those who did not have were 185 (58%). SACCOs which had SACCO Link Card were 80 (29%) while those which did not have were 193 (71%). This implies that most of the SACCOs in Bomet County did not have website, had not intergrated MPesa services in their operations and that they were not having SACCO Link Cards hence were offering over the counter service for money transactions as oposed to banking system which is more transparent and auditable.

Respondents were asked to respond on the extent to which they agreed with the statements on use of information technology in their SACCOs. Their response were as per Table 2 where SA meant Strongly Agree, A - Agree, U - Undecided, D - Disagree and SD – Strongly Disagree with the statement.

Statements on Information Technology	SA	Α	U	D	SD
Reports produced by SACCO information system are accurate and	27	193	4	35	14
reliable	(9.9%)	(70.7%)	(1.5%)	(12.8%)	(5.1%)
Computerization has improved loans disbursement and loans	37	193	4	11	28
recovery	(13.6%)	(70.7%)	(1.5%)	(4.0%)	(10.3%)
Technology is a challenge to growth of the SACCO	15	163	16	49	30
	(5.5%)	(59.7%)	(5.9%)	(17.9%)	(11.0%)
Computerization has reduced fraud in the SACCO	39	153	24	29	28
	(14.3%)	(56.0%)	(8.8%)	(10.6%)	(10.3%)
Errors and differences in records are easily corrected, and	165	47	4	29	28
reconciliations done on time thank to Technology	(60.4%)	(17.2%)	(1.5%)	(10.6%)	(10.3%)
Despite computerization the SACCO has had some fraud cases	145	51	8	27	42
	(53.1%)	(18.7%)	(2.9%)	(9.9%)	(15.4%)
The SACCO has a functional IT department with qualified staff	35	55	20	145	18
	(12.8%)	(20.1%)	(7.3%)	(53.1%)	(6.6%)

Table 2 Information Technology and Financial Performance of SACCOs

Source: Research Data (2020)

Majority of the respondents who were 193 (70.7%) agreed together with 27 (9.9%) of the respondents who strongly agreed that reports produced by SACCO information system are accurate and reliable. Respondents who disagreed were 35 (12.8%) and 14 (5.1%) respondents who strongly disagreed that reports produced by SACCO information system are accurate and reliable while 4 (1.5%) of the respondents were undecided. Computerization has improved loans disbursement and loans recovery in SACCOs since majority of the respondents who were 193 (70.7%) agreed together with 37 (13.6%) of the respondents who strongly agreed. The respondents who were 28 (10.3%) strongly disagreed together with 11 (4.0%) of the respondents who disagreed that computerization has improved loans disbursement and loans recovery. Respondents who were undecided were 4 (1.5%).

Majority of the respondents who were 163 (59.7%) agreed as well as 15 (5.5%) of the respondents who strongly agreed that technology is a challenge to growth of the SACCO. The respondents who were 49 (17.9%) agreed and 30 (11.0%) of the respondents who strongly disagreed that technology is a challenge to growth of the SACCO while 16 (5.9%) of the respondents were undecided. Computerization has reduced fraud in the SACCO since majority of the respondents who were 153 (56.0%) agreed so do 39 (14.3%) of the respondents who strongly agreed. The respondents who were 29 (10.6%) disagreed and 28 (10.3%) of the respondents strongly disagreed that computerization has reduced fraud in the SACCO while 24 (8.8%) of the respondents were undecided. Majority of the respondents who were 165 (60.4%) strongly agreed together with 47 (17.2%) of the respondents who agreed that errors and differences in records are easily corrected, and reconciliations done on time thank to Technology. Respondents who were 29 (10.6%) disagreed together with 28 (10.3%) respondents who strongly disagreed that that errors and differences in records are easily corrected, and reconciliations done on time thank to Technology. Respondents were undecided.

Despite computerization SACCOs has had some fraud cases. This is according to the majority of the respondents who were 145 (53.1%) who strongly agreed together with 51 (18.7%) of the respondents who agreed. Respondents who were 42 (15.4%) strongly agreed as well as 27 (9.9%) of the respondents who disagreed that despite computerization SACCOs has had some fraud cases while 8 (2.9%) of the respondents were undecided. Majority of respondents who were 145

(53.15) disagreed together with 18 (6.6%) of the respondents who strongly disagreed that SACCOs has a functional IT department with qualified staff. Respondents who were agreed that SACCOs has a functional IT department with qualified staff were 55 (20.1%) together with 35 (12.8%) of the respondents who strongly agreed while 20 (7.3% of the respondents were undecided. This implies that reports produced by SACCO information system are accurate and reliable; computerization improves loans disbursement and loans recovery; technology is a challenge to growth of the SACCO; computerization reduces fraud in the SACCOs; errors and differences in records are easily corrected, and reconciliations done on time thank to Technology. There have been cases of fraud despite computerization at the SACCO since most of the SACCOs does not have a functional IT department with qualified staff.

Most of the SACCOs in Bomet County did not have website, had not intergrated MPesa services in their operations and that they were not having SACCO Link Cards hence were offering over the counter service for money transactions as oposed to banking system which is more transparent and auditable. This is contrary to the findings of Zeithaml (2010) who viewed improvements in service as being critical elements of a competitive edge which in turn can be facilitated by improvements in information technology. He points out that a marriage of high tech and high touch is important, and believed that information technology has a positive impact on a firm's performance.

The study established that minority of the SACCOS had computerized their processes hence utilization of information technology changes their production process, reduces costs, widens the arena of competition, and facilitates the creation of new business unlike the majority of the SACCOS who had not computerized their process. This agrees with the study by Heskett (1990) who pointed out that the use of information technology will affect both the customer and the provider of services. The findings also agreed with those of Martell (2008), who found out that information technology will accelerate changes in how SACCOS conducts its activities.

The reports produced by SACCOs information system were accurate and reliable; computerization improved loans disbursement and loans recovery; technology was a challenge to growth of the SACCO; computerization reduced fraud in the SACCOs; errors and differences in records were easily corrected and reconciliations done on time thank to Technology. This agrees with Porter and Millar's (1985), study who asserts that utilization of information technology changes the production process, reduces costs, widens the arena of competition, and facilitates the creation of new business. There have been cases of fraud despite computerization at the SACCO since most of the SACCOs did not have a functional IT department with qualified staff. On the other hand, Bonk (2006) states that management of SACCOs must utilize computer technology, information resources, and telecommunications in operating their firms in order to survive in the era of globalization. To become effective niche players, they must utilize such technology in differentiating their products, improving quality and providing supervisor services.

1.4 Information Technology Adoption on Financial Performance Findings

The study established that minority of the SACCOS had computerized their processes hence utilization of information technology changed their production process, reduced costs, widens the arena of competition and facilitated the creation of new business unlike SACCOS who had not computerized their process. Most of the SACCOS in Bomet County did not have website, had not intergrated MPesa services in their operations and that they were not having SACCO Link Cards hence were offering over the counter service for money transactions as opposed to banking system which is more transparent and auditable. The reports produced by SACCO information system were accurate and reliable; computerization had improved on loans disbursement and loans recovery; technology was a challenge to growth of the SACCO; computerization reduced fraud in the SACCOs; errors and differences in records were easily corrected, and reconciliations was done on time due to adoption of technology. There had been cases of fraud despite computerization at the SACCO since most of the SACCOs were not having a functional IT department with qualified staff.

Adoption of information technology enabled SACCOs to computerize their processes, reduces operation costs, widens the arena of competition and facilitated the creation of new business. There is need for SACCOs in Bomet County to have website, intergrate MPesa services in their operations and have SACCO Link Cards. The reports produced by SACCOs information system were accurate and reliable; computerization had improved on loans disbursement and loans recovery as well as reduce fraud; it enabled easy identification and corrections of errors and differences in records was easily reconciled. There is need for SACCOs to have a functional IT department with qualified staff so as to monitor the operations of the system and quickly identify and report cases of fraud.

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1.5 Information Technology adopted on Financial Performance

There is need for SACCOs to adopt information technology so that they reduced on their operation costs; they need to have website, intergrate MPesa services in their operations and hag SACCO Link Cards. SACCOs need to have a functional IT department with qualified staff. SACCOs needed to recheck on the interest rate terms they offers so as they were able to benefit from it but at the same time remain competitive in the market. There is need for sensitization of SACCOs members on the need for prudent use of loan they take and the need for them to grow and manage the SACCO by encouraging them to promptly repay their loans. There is need for SACCOs to have mechanism of ensuring that all loans were repaid promptly and have in place mechanisms of recovering defaulted loan.

Future research could expand the scope of this study and investigate the effect of these research independent variables in other financial institutions such as banks. Future researchers could investigate factors affecting the financial performance of SACCOs other than the ones covered in the study.

REFERENCES

- [1] Abdullah, Haslinda & Valentine, Benedict. (2009). Fundamental and Ethics Theories of Corporate Governance. *Middle Eastern Finance and Economics*. 4.
- [2] Agrometeorological Field Unit (AMFU), (2011). *Agromet Advisory Bulletin* A Weather Smart Agriculture Technology option for Adaptation and Mitigation of Changing Climate.
- [3] Aina (2002). Research in Information Sciences: An African Perspective University of Dar es Salaam Library Journal 7(2): 114-118
- [4] Bailey's, (2001). *Goals-Based Evaluation Procedures:* How Students Perceive What Teachers Intend, TESOL International Association
- [5] Bearden &David, Hardesty, William. (2004). The use of expert judges in scale development: Implications for improving face validity of measures of unobservable constructs. *Journal of Business Research*. 57. 98-107.
- [6] Benne and Sheats, (2008). Some Thoughts on the Evolution of Work Teams in Organizations," in *IEEE Engineering Management Review*, 36 (1), 3-4.
- [7] Bell, Judith. (2010). Doing Your Research Project: A Guide for First-Time Researchers in Education and Social Science. http://lst-iiep.iiep-unesco.org/cgi-bin/wwwi32.exe/[in=epidoc1.in]/?t2000=027124/(100).
- [8] Bernanke, (2001). *Inflation Targeting:* Lessons from the International Experience, Princeton University Press. ISBN 9780691086897
- [9] Birchall, J. (1997). *The International Co-operative Movement*. Manchester Universities Press Oxford Road, Manchester M13 9NR, UK.
- [10] Cooper, D.R. and Schindler, P.S. (2003). Business Research Methods. (8th Ed.) McGraw-Hill Irwin, Boston.
- [11] Courtland and Thill (2001). Business in Action (7th Ed.) Pearson Education, Limited SN 9780133773897
- [12] Cunliffe, A. & Luhman, J. (2013). The SAGE key Concepts: Key concepts in organization theory London: SAGE Publications Ltd doi: 10.4135/9781473914643
- [13] Hammer, M. and Champy, J. (1993). Reengineering the Corporation: A Manifesto for Business Revolution. Harper Collins, New York.
- [14] Jensen and Meckling, (1976). *Theory of the firm:* Managerial behavior, agency costs and ownership structure https://doi.org/10.1016/0304-405X(76)90026-X
- [15] Kothari, C. (2008). *Research Methodology*: Methods and Techniques. 2nd Ed. New age International Publishers, New Delhi, India.
- [16] Kotler and Armstrong, (2004). *Principles of Marketing*; 10th Ed. New Delhi; Prentice Hall of India Private Limited.
- [17] Development (JAFSCD). 1. 151-162. 10.5304/jafscd.2011.013.004.

- [18] KUSCCO. (2016). *The Sacco Family Union Newspaper*. Nairobi, Kenya Union of Savings Credit Co-operative Unions [KUSCO]
- [19] KUSCCO. (2017). *The SACCO Family Union Newspaper*. Nairobi, Kenya Union of Savings Credit Co- operative Unions [KUSCCO].
- [20] Lasher, (2008). Financial Management: A Practical Approach (5th Ed.). Thomson South-Western ISBN-13: 978-0324422634
- [21] Maingi, M. S. (2014). Factors Affecting the Financial Performance of SACCOs in Kenya. International Journal of Business and Management, 2 (8), ISSN 2321-8916
- [22] Mang'ana,E.M.,Nyaboga,B.Y., Momanyi, C & Makone, M . S .(2015). Extent to which SACCOs Have Invested in Information Technology to Achieve Sustainable Competitive Advantage Over Their Rivals in Kenya. *International Journal of Innovative Research and Development*, 4 (2), 345-362
- [23] Mathe H, Dagi T (2016). Managing technology for the globalization of Service Operations. *International Journal of Technology Management*, *12*, *3-4*.
- [24] Mathe H, Dagi T (2006). Harnessing technology in global service businesses. Long Range Planning, 29(4), 449-461
- [25] Microfinance Network Report, (2000) *Inclusive Growth:* Improving Microfinance Regulation to Support Growth and Innovation in Micro-enterprise. The Republic of Kenya Background Country Report
- [26] Ministry of Co-operative Development and Marketing (2008). The Co-operative Digest. Nairobi, NSSF: Ministry of Co-operative Development and Marketing.
- [27] Mislevy, R. J. (2004). Can There Be Reliability without 'Reliability?' *Journal of Educational and Behavioral Statistics*, 29(2), 241–244. https://doi.org/10.3102/10769986029002241
- [28] Mosongo, E., Gichana, I., Ithai, J. Munene, N. (2013). Financial Innovation and Financial Performance. *International Journal of Research in Management*, 5 (3), ISSN 2249-5908, September 2013
- [29] Mugenda, M. O. and Mugenda, G.A. (1999). *Research methods*: quantitative and Qualitative approaches. African Centre for Technology Studies.\
- [30] Mugenda, O.M. and Mugenda, A.G. (2003). Research Methods: Quantitative Method. Nairobi: Masola Publishers.
- [31] Nkuru ,F.G. (2015). Factors Affecting Growth of SACCOs Within The Agricultural Sector in Kenya ,a case of Meru Farmers SACCOs. *Global Journal of Commerce and Management Perspective*, 4(1):34-45, ISSN :2319-7285.
- [32] Patton, Michael. (2002). *Qualitative Research and Evaluation Methods*. http://lst-iiep.iiep-unesco.org/cgibin/wwwi32.exe/[in=epidoc1.in]/?t2000=018602/(100). 3.
- [33] Porter and Millar's (1985). How Information Gives You Competitive Advantage, retrieved fromhttps://hbr.org/ 1985/07/how-information-gives-you-competitive-advantage[28/11/2016 11:34:33] on 13/03/2019
- [34] SASRA, (2017). The SACCO supervision annual report. An annual statutory report on the operations and performance of Deposit-Taking SACCO Societies (DT-SACCOs) in Kenya of reforming health care delivery in America." Policy Studies Journal, 38 (3), 606