

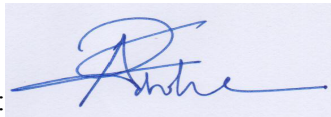
**E-COMMERCE AND SUSTAINABLE COMPETITIVE  
ADVANTAGE OF SAVINGS AND CREDIT COOPERATIVE  
SOCIETIES IN NAIROBI CITY COUNTY**

**FRED POWON ACHOKE**

**A RESEARCH PROJECT SUBMITTED IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF  
THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION,  
FACULTY OF BUSINESS AND MANAGEMENT SCIENCES,  
UNIVERSITY OF NAIROBI**

## DECLARATION

This Research Project is my original work and has not been presented for any award in any other University.

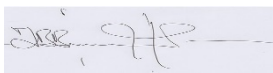
Signature: 

Date: 6<sup>TH</sup> SEPTEMBER 2021

**Fred Powon Achoke**

**Adm No: D61/7804/2017**

This Research Project has been submitted for examination with my approval as the University Supervisor.

Signature: 

Date: 7<sup>th</sup> September 2021

**PROFESSOR ZACHARY BOLO AWINO**

**DEPARTMENT OF BUSINESS ADMINISTRATION, FACULTY OF BUSINESS AND  
MANAGEMENT SCIENCES, UNIVERSITY OF NAIROBI**

## **ACKNOWLEDGEMENT**

I thank the almighty God for granting me the gift of health and wellness throughout the period that I have been undertaking this research project.

I also want to extend my heart felt gratitude to my family who have been very supportive and understanding and for the sacrifices they have had to make to see me through this task.

Many thanks also go to my Supervisor Professor Z. B. Awino for the guidance he accorded me throughout this project.

Lastly I extend my heartfelt gratitude to everyone who in their small ways contributed to the success of this research project.

## **DEDICATION**

I dedicate this project to my family who have always believed in me and supported me.

## ABSTRACT

The evolution of information technology has had a significant effect on business operations and this has changed market structures and the degree of competition. Businesses are able to connect faster at a lower cost both internally as well as externally, in a local scale as well as globally. The adoption of information communication technology has also led to enhanced business operations, by increasing efficiency as well as productivity thus creating a competitive advantage for organizations. The Sacco sector makes significant contribution to development of the country's economy. It is among the active sectors whose competition status is ever increasing as the number of registered Saccos continue to increase. As a result the organizations are forced to find ways to improve how they serve their members. Adoption of ecommerce has been cited to be one of the things that Saccos can invest in to enable them improve their service delivery. The focus of this study was E-Commerce and sustainable competitive advantage of SACCOs in Nairobi City County. The research objective was to determine ways in which E-Commerce contributes to sustainable competitive advantage of SACCOs in Nairobi City County. The two theories that informed this research include the resource based view and the transaction cost theory. The study utilized cross sectional survey as the research design of choice and used primary data that was collected by distributing questionnaires to the respondents. Data analysis was undertaken quantitatively using descriptive statistics and inferential statistics. The research showed that parameters of Ecommerce had a significant relationship with sustainable competitive advantage of Saccos whereby the coefficients recorded included 0.067 for strategy alignment, 0.121 for inter organizational linkages, 0.178 for business process integration and 0.153 for organizational agility. The study concluded that E-commerce contributed to the sustainable competitive advantage for Saccos. The researcher recommended that more training should be conducted with regards to E-Commerce as well as enhancing the budget towards acquisition and maintenance of the system. The researcher also gave suggestions for further studies in the area of implementation strategies for E-Commerce as well as conducting similar study in a different context for comparability purposes.

## TABLE OF CONTENTS

<b>DECLARATION</b>	i
<b>ACKNOWLEDGEMENT</b>	ii
<b>DEDICATION</b>	iii
<b>ABSTRACT</b>	iv
<b>LIST OF TABLES</b>	vii
<b>ABBREVIATIONS AND ACRONYMS</b>	viii
<b>CHAPTER ONE:INTRODUCTION</b>	1
1.1 Background of the Study	1
1.1.1 Concept of E- Commerce	3
1.1.2 Sustainable Competitive Advantage	4
1.1.3 The SACCO Sub- Sector in Kenya	5
1.2 Research Problem	7
1.3 Research Objective	9
1.4 Value of the Study	9
<b>CHAPTER TWO: LITERATURE REVIEW</b>	10
2.1 Introduction	10
2.2 Theoretical Framework	11
2.2.1 Resource Based View	11
2.2.2 Transaction Cost Theory	13
2.3 Ecommerce Integration in Organizations	14
2.4 E- Commerce as a Strategy for Sustainable Competitive Advantage	15
2.5 Summary of Empirical Studies and Knowledge Gaps	16
<b>CHAPTER THREE: RESEARCH METHODOLOGY</b>	18
3.1 Introduction	18
3.2 Research Design	19
3.3 Research Population	20
3.4 Data Collection	20
3.5 Data analysis	21
<b>CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSION</b>	23
4.1 Introduction	23
4.2 General Information	23
4.2.1 Level of Education	23

4.2.2 Work Experience	24
4.2.3 Age of Respondents	24
4.2.4 Years of Operation	25
4.2.5 Number of employees	26
4.2.6 Members of Sacco	26
4.2.7 Provision of FOSA Services	27
4.3 Descriptive Statistics	27
4.3.1 E- Commerce Deployment	27
4.3.2 Strategy Alignment	28
4.3.3 Inter organizational Linkages	29
4.3.4 Business Process Integration	30
4.3.5 Organizational Agility	31
4.4 Regression Analysis	32
4.5 Discussion of Results	34
<b>CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS</b>	<b>37</b>
5.1 Introduction	37
5.2 Summary	37
5.3 Conclusions	38
5.4 Recommendations	40
5.5 Suggestions for Further Studies	41
<b>REFERENCES</b>	<b>42</b>
<b>APPENDICES</b>	<b>45</b>
Appendix I: Research Questionnaire	45
Appendix II: List of Registered Saccos in Nairobi City County	50

## LIST OF TABLES

<u>Table 4. 1: Level of Education</u>	23
<u>Table 4. 2: Work Experience</u>	24
<u>Table 4. 3: Age of Respondents</u>	25
<u>Table 4. 4: Period of Existence</u>	25
<u>Table 4. 5: Number of Employees</u>	26
<u>Table 4. 6: Sacco Membership</u>	26
<u>Table 4. 7: FOSA Services</u>	27
<u>Table 4. 8: E-Commerce Deployment</u>	27
<u>Table 4. 9: Strategy Alignment</u>	29
<u>Table 4. 10: Inter Organizational Linkages</u>	29
<u>Table 4. 11: Business Process Integration</u>	30
<u>Table 4. 12: Organizational Agility</u>	31
<u>Table 4. 13: Model Summary</u>	32
<u>Table 4. 14: ANOVA</u>	33
<u>Table 4. 15: Coefficients<sup>a</sup></u>	33



## **ABBREVIATIONS AND ACRONYMS**

<b>ICT</b>	Information Communication Technology
<b>E- Commerce</b>	Electronic Commerce
<b>SACCOs</b>	Savings and Credit Cooperative Societies
<b>SASRA</b>	Sacco Societies Regulatory Authority
<b>KUSCCO</b>	Kenya Union of Saving and Credit Co-operatives

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

The evolution of information technology has had a significant effect on business operations and this has changed market structures and the degree of competition. Businesses are able to connect faster at a lower cost both internally as well as externally, in a local scale as well as globally (Boachie-Mensah & Acquah, 2015). The adoption of information communication technology has also led to enhanced business operations, by increasing efficiency as well as productivity thus creating a competitive advantage for organizations. Turbman, King, MacKay, Marshall, Lee and Viehland (2008), define E-commerce to be the act of purchasing and selling or trading information, products as well as services across paperless media such as the internet. E-commerce is also described by Huy and Filiatrault (2006) to be any economic activities facilitated by ICT-based applications to manage transactions between two or more entities. The level of Ecommerce integration into operations of an enterprise determines the performance levels of the business (Khan & Maqsood, 2011).

Resource-based theory (RBT) spells out ways in which organizations attain a sustainable competitive advantage in exploitation and development of the resources at their disposal (like assets, capabilities, competencies, as well as know-how) which are non-imitable and unique (Peteraf, 1993). The specific resources can be found within the organization or accessed and exploited externally from the firm's environment like trading partners as well as clients. Among these resources, firms consider ecommerce technologies to be critical and therefore its adoption is viewed to contribute to competitiveness especially

when acquired and utilized in an effective manner (Caldeira and Ward, 2003). Another relevant theory is the transaction cost theory (TCT) which sheds light on transactions that are conducted between buyers and sellers whereby key to the definition of the term transaction is the transference of goods “across a technologically separable interface” (Williamson, 1985). Transaction cost theory offers a reliable mechanism for assessment of costs of the transaction as well as risks associated with relationships across organizations (Shanks et al, 1993).

There has been numerous works that outline the benefits of integrating ecommerce into the firms’ operations. Vaithianathan, (2010) presents a number of benefits such as gaining access to a wider market, enhanced efficiency in firm operations, improved partnerships with the firm suppliers, improved customer service, increased flexibility and higher accessibility. Chaffey (2009), distinguishes the benefits of adopting E-commerce into tangible and intangible benefits whereby those benefits that are tangible are identified to be more sales, gaining new customers, ability to cross-sell and also access to new markets and reduced costs. Intangible benefits include better communication, brand awareness, ease of finding new partners and improved efficacy of marketing information among others. It is of concern therefore that despite of the many benefits that come with adoption of Ecommerce, only a handful of Saccos have been able to embrace and implement its adoption (Mutua, Oteyo, & Njeru, 2013).

Kenyan Savings and Credit Co-operative Societies (SACCOs) are known for small savings account that constitute a stable source of funding that is relatively low-cost with minimum costs of administration. SACCOs have the ability of advancing loans significantly low rates of interest as compared to other financial service providers and are

also able to reach customers who live areas considered unattractive by banks (Chahayo et al, 2013). This has resulted to people being more attracted to SACCOs, thus enhancing financial inclusion. The core objective of SACCOs, which has been achieved efficiently, is to facilitate the empowerment of their members by mobilizing savings and disbursing credit. For instance, SACCOs in Kenya have facilitated mobilization of savings worth more than Kshs.200 billion, which accounts for more than 30% of National Domestic Saving (SASRA Report, 2016). Like other companies, SACCOs are making necessary strides in their efforts towards expansion of the utilization of networking technology in the operations of their businesses. Among them is the adoption of e- commerce in their operations and interactions with the different stakeholders. This research looked at the effect e- Commerce has on the competitive advantage of SACCOs in Nairobi City County.

### **1.1.1 Concept of E- Commerce**

Laudon et al (2009) presents electronic commerce to be the utilization of the internet and the web in transacting business or rather the utilization of a medium that is digitally enabled to conduct commercial transactions between and among firms. E- Commerce gives organizations an opportunity to efficiently and effectively connect their processes internally as well as externally, and also have a close working relationship with suppliers and partners so as to ensure the needs and expectations of their clients are met, thus leading to the growth of the organization's business performance (Nkuru, 2015). This implies that combining ecommerce with other information systems in the organization leads to business transactions being conducted electronically. The outcome then becomes effectively implementing operations of the business using internet technology.

The internet as well as the World Wide Web are the technologies behind e-commerce. Laudon & Treavor, (2009) contend that the internet is a global network of computer networks that have been built on mutual standards. The internet was invented in late 1960's to bring together few users of mainframe computers and has since developed to be the broadest network in the universe which connects more than 1.2 billion computers globally. Through the internet, many entities are connected including small as well as large businesses, government agencies, learning institutions, as well as individuals, providing users with online services.

E- Commerce entails integrating ICT components with organizational operations and has two facets. The first one is supply chain integration which ensures the process of producing and delivering products is seamless. Second is creation of new commercial transaction models grounded upon the open systems of communication between the firm and it's stakeholders. Whereas the supply chain integration ensures enhanced efficiency and substantial cost benefits resulting from minimized wastes, product and service development are enabled by new ways of transacting that is based on links between institutions, organizations and individuals (Windrum & De Berranger, 2002).

### **1.1.2 Sustainable Competitive Advantage**

Sustainable competitive advantage is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Altenburg, Stamm & Schmitz, 2006). It is the continued advantage gained by organizations as a result of the implementation of some unique strategies that create value that is centered on uniquely combining resources and capabilities which are internal to the firm, and that are difficult for competitors to replicate. For organizations, this

involves procuring necessary resources and functioning in the context that promotes sustainability standards as well as operating from a proactive perspective. This advantage enables the organization to survive amidst competition in the long term.

According to Damanpour, (1996), sustainable competitive advantage entails an organization having an upper hand over competitors with regards to securing clients as well as being able to defend the organization against elements of competition. Sustainable competitive advantage comes from the firm's core competencies which give rise to long term firm advantage. Definition by Gaynor, (2002) of core competence present the aspect to characterize specialized expertise which emanates from the harmonization of multifaceted streams of work activity and technology. Further they contend that a core competence possesses three characteristics which include provision of access to varied markets, increased alleged client benefits and difficult to imitate.

Arguments by Porter (2004) point that in an industry, sustainable competitive advantage can only be attained in an industry if the process of its evolution is well understood which will enable prediction of change and strategically counter it. He forwards suggestions of a model he developed assisted by Miller (Porter and Miller, 1985) that entails structural analysis of industries which will be used as a framework for this. One will be able to conduct an analysis adequately as well as do a forecast on industry progression through the combination of structural analysis model and the product life cycle model (Kotler, 1972).

### **1.1.3 The SACCO Sub- Sector in Kenya**

Kenyan Sacco sector has an estimated asset base of over Kshs 230 billion and savings portfolio of approximately 190 billion, making it the largest in the continent and the seventh globally (Ademba 2010). Kenyan SACCOs make a considerable proportion of approximately 20% of the total savings in the country (Makori *et al* 2013). Notably, after gaining independence the Kenyan Government acknowledged co-operatives to be suitable vehicles that are characterized by ideal framework that will facilitate achievement of their objectives as well as take part in the national economic development. The government then put in place mechanisms which saw SACCO society movement's exponential growth and expansion (Gardeklint, 2009).

The Kenyan government considers the SACCO movement to be one of the economic pillars of the country. As at 2010, the registered number of SACCOs in Kenya was 5,000 with a membership of approximately 7 million. The funds mobilized by these SACCO societies stood at approximately Ksh. 200 billion (Republic of Kenya (RoK), 2008; Ndung'u, 2010). According to the SACCO Supervision Survey (2017), assets owned by the subsector stood at an estimated 216 billion, an increase of 11 % up from the previously recorded Kshs. 194 billion in 2016. The same trend was experienced in member deposits and share capital which grew to Kshs. 164 billion balancing relatively well issued loans and advances at 158 billion.

SASRA Survey (2016) points out that there has been an evolution of the SACCO in the country over the last 40 years into a reckoning force of economic and social transformation of the Kenyan citizens. SASRA registered 164 SACCOs by end of 2015 dully licensing them to engage in Deposit-Taking (DT) SACCO business in Kenya.

Moreover, approximately 63% of the population in Kenya is directly or indirectly dependent on SACCOs related activities for their livelihood.

### **1.2 Research Problem**

Presently, investments by firms into e-commerce infrastructure and applications have been viewed to be very important especially for organizations that aspire to compete effectively in any market or industry. Arguments by Rodgers et al. (2002) point out that without ecommerce, organizations that aspire to be competitive can hardly manage. This is because of the increasingly digital economy and the shift in how business is being conducted in the current business environment. Although e-commerce is perceived to be key and advantageous for organizations, concerns are growing over the payoff of ecommerce investments. As Soto-Acosta *et al.* (2008) contends that there has been a renewed skepticism regarding significance of e-commerce and IT in individual firm level. The increasing concerns are a result of realization that the impact of e-commerce on enhancing a firm's financial performance is not apparent.

The Sacco sector greatly contributes to the country's economic growth. It is among the active sectors whose competition status is ever increasing as a result of Saccos being registered by the day. This has forced the organizations invent ways that can enable them improve on their service delivery to their members. The adoption of ecommerce has been identified to be a key area that can enhance the firms' competitiveness. A comprehension of the impact of ecommerce within the Sacco subsector will enable decision makers to make more informed and appropriate decisions on their deployment of resources which is crucial to the organization's competitiveness in the current business environment.



Various studies conducted in an effort to examine how e-commerce impacts usual business processes, argued that out of automation and optimization of regular firm operations, business processes are improved. A research conducted in Spain by Perez-Arostegui, Benitez-Amado, and Tamayo-Torres (2012) looked at 230 firms and which utilized the descriptive survey methodology to analyze how ICT impacted organizational competence indicated the presence of positive and direct link between integrating flexible IT infrastructures into a firm's strategy and superior performance thus giving the firm a competitive edge.

Cho (2015) did a research aimed at ascertaining the important factors which had influence on incorporation of third party B2B portals among the garment industry in Hong Kong. The research methodology utilized in the study was cross sectional descriptive survey where by results showed that apparent external pressure, revenue, size of the firm and apparent challenges impacted the implementation process of ecommerce among firms. Upadhyay et al., (2010) looking at factors that have an influence on the adoption of ecommerce in Indian manufacturing organizations, adopted the descriptive cross-sectional survey to collect and analyze the data and found out that management support, organizational culture and effective communication were important factors that aided success.

In Kenya, Empirical studies include Njuru (2007), whose study focused on limitations encountered during the implementation of electronic banking strategy by commercial banks and concluded that among the biggest challenges that banks faced included cost of adoption and resistance from employees. Ongare (2013), also did a study that focused on electronic banking and performance of Kenyan commercial banks. His focus was a

survey on the tier one and two banks. The outcome of the study indicated a positive relation between ecommerce and performance.

Aduda and Kingoo (2012) conducted a study that focused determining the link between electronic banking and fiscal performance where the context was the local commercial banks, whereby they adopted a survey research design of all banks. Their findings implied that there was an existing link between electronic banking and performance of the banks. Odwesso (2011) research looked at ecommerce and sustainable competitive advantage in travel and tours companies operating in Nairobi City County. She identified aspects of ecommerce that positively affected competitiveness as a data base system and capabilities in processing of data, quality products and client service, a management team that is outstanding as well as robust competences in research and development.

Even though the paybacks resulting from e-commerce solutions are often linked to competitive advantage, very few if any past studies have considered the link between e-commerce and sustainable competitive advantage in Saccos and more specifically none of these studies has sought to ascertain how e-commerce impacts sustainable competitive advantage of SACCOs in Nairobi City County. This study intended to answer the research question; how does e-commerce contribute to sustainable competitive advantage of SACCOS in Nairobi City County?

### **1.3 Research Objective**

This research was guided by the objective; to determine ways in which E-Commerce contributes to sustainable competitive advantage of SACCOs in Nairobi City County.

### **1.4 Value of the Study**

This study enables the policy makers to be guided when coming up with policies that would ensure facilitation of a suitable environment that would promote the development of SACCOs. The input of SACCOs to the country's economic growth is important and therefore the research is expected to provide a basis for the policy makers to make informed decisions.

The study added to the academic repository in the field of e-commerce and competitive advantage of SACCOs thus addressing identified gaps in literature while at the same time suggesting areas to conduct further research. It is thus expected to provide a reference source for scholars conducting studies on similar topics in future as well as others who may wish to undertake similar topics in order to compare results and address gaps that may arise.

Research in e-commerce and the impact it has on the different organizational factors is on the increase, an indication that it is an area of great interest among academicians and also practitioners. The applicable theories therefore continue to be tested and improved as per the findings of these researches. This study provided insights on the applicability of the resource-based theory and transaction cost theory, with regards to the ecommerce and its input towards sustainable competitive advantage in organizations. The strengths of these theories were highlighted together with the weak points and the relevance in explaining the specific concepts.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This section presented a synthesis of selected works on e-commerce as a determinant of sustainable competitive advantage. Reviews of studies and articles that have been done and documented by various researchers which focus on the concepts under research enabled the researcher comprehend and bring to focus the important aspects of the specific variables

The concept of e-commerce and its contribution to sustainable competitive advantage has been presented in light of various theories as well. The researcher intends to look into the aspects brought out in previous literature as presented and explained in light of applicable theories under different contexts. This will provide the researcher a foundation on which to base the arguments as presented in the findings

This chapter is structured according to the various thematic areas namely theoretical perspectives, ecommerce commerce and competitive advantage as well as review of empirical studies and the knowledge gaps that can be identified conceptually, contextually and also from the research methodology.

## **2.2 Theoretical Framework**

Several theories have been advanced that explain the adoption of technology in organizations and how they enhance the firms' competitive advantage. Two theories were considered which have evolved in time and aides in understanding ability of innovative applications in generating competitive advantage in the dynamic business environment.

The resource-based view and the transactional cost theory were utilized which agree that the key objective for organizations is developing ways in which their performance can be enhanced as compared to the competitors.

### **2.2.1 Resource Based View**

The resource-based view (RBV) is widely perceived as the most significant and broken down theory for explaining the resources of an organization and how they create a competitive advantage for organizations. Arguments fronted by the supporters of the theory purport that organizational resource have the most likelihood of facilitating positive organizational achievements such as minimized costs and superior revenues, are those which are valuable, heterogeneous, immobile, exclusively possessed by the firm, as well as hard to imitate by the competitors (Barney et al, 1995). The RBV alludes that the link between resources and performance is likely to be prescribed by causal indistinctness which represent “the relative strain of decoding causal links between firm resources and output” (Lado, 2006). The key strength for the RBV is the aspect of causal ambiguity as it establishes a key barrier to imitation.

Critics nonetheless presents arguments that causal ambiguity is not a sufficient explanation because of limitations managers face as they try to comprehend the foundation of competitive advantage (Lado et al, 2006). That is to say that causal and effect relationship between resources and performance are smoky and therefore is not easy to interpret accurately (Godfrey & Hill, 1995). Latest research that has focused on RBV contends that the connection between firm resources, firms knowledge, as well as dynamic capabilities reconfigure the competitive advantage of an organization (Warnerfelt, 1984).

Barney (1991) argues that an organization’s long term strategy is determined by the resources and capabilities owned by the firm and managers need to search for practical ways to build and sustain competitive advantage arising from possessing these resources

and capabilities. This will ensure that manager's efforts are not frustrated in their effort to sustain a competitive advantage. Eisenberg (1985) proposes that leaders in the organization can use uncertainty conversationally to augment the current stakeholders' ascriptions of cause and effect relationships.

Despite various criticism of resource-based view from different quarters regarding the vagueness in defining resources, as well as the rigidity in the research approach when focusing on competitive advantage (Shanks et al 1993), the view provides an explanatory theoretical foundation. With regards to technological innovation solutions, RBV scholars contend that firms acquire IT-related products with the assumption that by investing these resources the firm will enjoy superior economic returns (Wade & Hulland, 2004). Performance in firms are dependent on the synergy that results from integrating resources from both organizational, business, and technological levels (Zhuang & Lederer, 2006).

### **2.2.2 Transaction Cost Theory (TCT)**

The TCT theory focuses on the transactional relationship existing between buyers and sellers and whereby the term transaction is used to mean the transfer of goods "across a technologically separable interface" (Williamson, 1985). Transaction cost theory provides a mechanism that is efficient for assessment of costs of transaction costs as well as risks posed by inter organizational relationships (Simpson & Power, 2005). Transaction costs are linked with economic transactions which fluctuate independent of the competitive price levels of the exchanged products.

According to Malone, Benjamin and Yates (1987) the enhancement of market coordination is achieved in communicating as well as brokering electronically, and also considering integration effects. TCT therefore assumes that efficient investments are

made towards those systems developed to help in management of the supply chain management that bring down costs of transactions, and this is what sources of competitive advantage are all about (Heide & Stump, 1995).

A growing number of empirical studies have however pointed out to a number of limitations with regards to the transaction cost theory (Tsang, 2000). Among them include the notion that isolation of transaction costs and benefits linked with the process of exchange can be a challenge, especially whenever more than two people are involved in the transactions. The theory adopts the competitive paradigm to discuss participants in the exchange as economic units. This is a key weaknesses since it does not take into consideration the long-term exchanges within economic and social relationships (Johanson & Matsson, 1987).

### **2.3 Ecommerce Integration in Organizations**

The economy is increasingly becoming more digitized which has led to many businesses embracing digitization of their operations. This calls for management of organizations to thus look at applicable strategies that can propel adoption of e-commerce so as to enhance their competitiveness. Prior to development of an e-commerce strategy organizations take into consideration how their underlying business model will be impacted by the digital engagement. Mahadevan (2000) outlines the general principles that guide the design of a firm's business model that incorporates ecommerce and contend that the important aspect is the determination on the role the organization intends to play online, product or service types that they intend to offer, as well as ways in which to tap streams of revenue all the while creating value for their market and suppliers.

The more organizations integrate e-commerce into their activities, the more unique they are perceived to be which enhances their performance. Taylor and Murphy (2004) illustrate that organizations gradually adopt IT components so as to make their interactions with their customers more flawless and so that customers can order and transact conveniently. By doing this, the process becomes efficient where speed is maximized and services and products made easily accessible with minimal associated costs. By implementing E-commerce, organizations embrace e-business by integrating the supply chain thus enabling a seamless manufacturing and delivery process which minimizes waste across the whole supply chain.

A significant positive relationship legal framework that is conducive and the development of e-commerce within the country was also noted by Omollo (2013). Omollo cites the case in Kenya where mobile payment services has widely been adopted which has been aided by the presence of a conducive legal framework set up by the government. When comparing with peers regionally with similar socio-economic profile but different or nonexistent policy framework, a lag in mobile payment services is evident. This implies the existence of a significant link between drivers to an extent where they are mutually inclusive.

#### **2.4 E- Commerce as a Strategy for Sustainable Competitive Advantage**

E-commerce comprises of all fiscal undertakings, a group of technologies that is dynamic, computer applications, as well as business processes executed across computer platforms which connects firms to clients, suppliers, as well as other business partners by means of electronic exchange (Davis, 2015). Apart from providing innovative openings



to sell company goods and services, it as well adds value by improving the efficiency and effectiveness of the supply chain. Nonetheless, addition of value will only take place if ecommerce platforms get to be utilized as enablers for firms to achieve the set goals.

Barney (2007) asserts that organization attain competitive advantage over their competitors by developing the ability to generate increased economic value. To measure the economic value offered by an organization, the difference between the total economic price of products and the expected benefits attained by the buying consumer is calculated (Fichman, 1992). The author further contends that an organization's competitive advantage can either be temporary or long term. The difference between the two is that the former lasts for a short time while the latter is sustained for a longer timeframe. A company is able to gain a competitive edge when it acquires or develops an capabilities which enables it to have superior performance as compared to its competitors (Boundless, 2015).

A firm gaining a competitive advantage is therefore dependent on how far they can harness the ecommerce applications towards achievement of objectives in an effective and efficient manner as compared to the competitors (Gichungu & Oloko, 2015). Different proposed frameworks on how ecommerce generate competitive advantage suggests that it is possible to generate competitive advantage and it is dependent on levels of integration between the internal and external firm factors in and amid its systems and also processes not forgetting to incorporate those of the partners they are in business with. The factors that can be integrated need to complement each other so as to ensure creation of a sustainable competitive advantage (Rossi, 2005). Alignment between

ecommerce and overall business strategies is critical for a sustained business competitive advantage.

## **2.5 Summary of Empirical Studies and Knowledge Gaps**

Literature on effects of e-commerce and sustainable competitive advantage focuses its application and its impact on various business processes. Methlie and Christensen (2003) further did a research survey in Norwegian firms to try and establish if e-commerce impacted sales positively and significantly. The study collected data from 330 firms that had adopted e-business and were actively engaging in it. Analysis of data was done using descriptive statistics and exploratory factor analysis. From the findings, the researchers contended that utilizing e-commerce had no major effect on the performance of the organizations' financial and economic indicators.

Sanders (2007) conducted a research whereby confirmatory factor analysis was used in analyzing the link between e-commerce and operational and strategic gains from the suppliers' perspective. The research targeted 1000 firms from the US. The three variables that were being researched on included cost efficiencies resulting from advanced processes, increased sales volume and improved profitability. Findings indicated that integrating buyers and suppliers that is achieved through e-commerce resulted to both strategic and operational gains for the organizations. From the outcome, Sanders (2007) deduced that organizations benefit when they adopt the various e-commerce technologies

In Kenya, several studies have been conducted among them being Nakhumwa (2013) who conducted a study on adoption of e-commerce payment systems by Kenyan commercial banks. The descriptive cross-sectional design was adopted where primary data was used to analyze the concepts under study. From the findings it was established

that banks perceived investing in e-commerce created value for the shareholders. Aduda & King'oo (2012), also did a research that looked at effects of IS in managing customer relations. The findings from this research which was a descriptive survey indicated that merely investing in technology systems did not automatically result in superior performance but rather work was needed to be done to identify innovative ways of creating sustainable competitive capabilities.

Muriuki (2011) also conducted a research with a focus on technology and agency banking among financial institutions in Nairobi City County. The research objective was to find out the effect of technology adoption on agency banking, whereby the methodology adopted was descriptive Survey. The findings established that financial institutions have been embracing information systems to serve their clients better and also have a competitive advantage in the market. From the reviewed literature, conclusions can be made that organizations can benefit if they integrate e-commerce solutions in their day to day business processes which can result in improvement of most activities across the value chain. There is however a shortage of empirical studies that focus on whether the adoption of e-commerce does result to sustainable competitive advantage, as is usually purported in a number of studies.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The section presented the plan through which the objective of the study was to be met. It entailed the research design, being the approach that the study took in meeting its

objective. The chapter also presented the study population being the total number of units of analysis, data collection being the manner in which the requisite data on each variable was obtained.

The chapter also discussed data collection method adopted by this research study which included primary data as well as ways in which the data was acquired. The research problem that was analyzed was the effect of Ecommerce on sustainable competitive advantage of SACCOs in Nairobi City County.

The chapter also addressed the data analysis techniques adopted where data analysis referred to the way through which the data collected was to be processed, and analyzed for purposes of drawing conclusions about the study. The chapter also highlighted on ways in which the analyzed data was to be presented.

### **3.2 Research Design**

Research design is defined as the outline that guides the course of a study in its quest to find answers to the particular query under study (Creswell, 2003). The definition by Weathington, Cunningham and Ittenger (2010) present research design to be an overall guide used by the researcher to facilitate the answering of the research questions or the process of testing the research hypothesis. On the other hand, Kothari (2004) regards research design to be a collection of tools and techniques that aide data collection and analysis while observing relevance with economy.

The research design used was the descriptive cross- sectional design in the attempt to gather relevant data on ecommerce and how it impacts the sustainable competitive advantage of Saccos. Descriptive study focused on ascertaining how things are and therefore assists in determining the prevailing state of a phenomenon under research

(Cooper & Schindler, 2003). Biasness in the results was minimized as well thus the research design was seen to be the most suitable for this research.

Cooper and Schindler (2006) recognize that descriptive research design is important more so when the intention of the study is to achieve a broader comprehension of the research context and process under focus. They further contend that the research design enables generation of answers to different questions conceptually and contextually.

### **3.3 Research Population**

Mugenda and Mugenda (2003) defines a population to be an aggregate of all that conform to defined characteristics. Target population is defined by Babie & Halley (2007) to be the total collection of possible research participants who meet a specific set criteria by the research. Wambua (2011) contends that a population element refers to the subject under study like individual, a company, a database, or even the total quantitative data that define the measurement standards.

The research population for this research consisted of all Saccos that had been registered by SASRA and were operational in Nairobi City County. The entire SASRA-registered Saccos operating in the County of Nairobi was 41 and this research conducted a census study of these institutions. Therefore all these organizations took part in the study to respond to the research questionnaire and provided relevant data that facilitated the answering of the research question.

The intention of the researcher in this study was to look into Saccos in their operating environment that is characterized by continuous changes both in industry as well as market. This therefore called for an understanding on what role ecommerce plays to enhance the competitiveness of these organizations. Important to take in to consideration

was the extent to which these Saccos would have adopted ecommerce in their operations and how these impacted their level of competitiveness in the market.

### **3.4 Data Collection**

Data collection refers to gathering of data in a systemic way, and in consideration to relevance to the research purpose or questions (Onwuegbuzie and Leech, 2005). The questionnaire was adopted as it was the ideal instrument for gathering information from respondents. This is because it gave the respondents a means for communicating their perspectives more transparently and unmistakably.

A questionnaire is defined by Fielding (2010) to be a formal list of questions that are designed with the aim of getting facts. The structured questionnaire comprised of closed ended questions which were intended to evoke particular responses for qualitative as well as quantitative analysis. The targeted respondents comprised of senior management that had the relevant and accurate information on organizational processes.

The nature of information that was needed to answer the research objective in this study was related to planning and performance, together with IT policies adopted by the Saccos. The researcher targeted respondents from the research and business development department because it made use of different information sources both internal and external like competitors and the market and therefore made it easy for the researcher to get synchronized and relevant information from one source without going to many departments. This saved on time and resources without compromising on reliability of the findings.

### **3.5 Data analysis**

In research, analysis purposes to convert the data that has been gathered into meaningful information so as to have an understanding of the big picture of the research being carried out (Sekaran & Bougie, 2013). Easterby et al (2008) argue that data analysis requires clear elaborations on ways in which the analysis will be undertaken as well as how the conclusion will be arrived at. It is therefore important that these processes are understood as it is a key part in conducting a successful research, including its interpretation (Weber, 1990).

The study employed SPSS version 23 for data analysis. For likert questions, means and standard deviation were used to illustrate strength as well as degree of differences in the responses. Regression analysis was undertaken to help find out the kind of association between the variables under study in relation to factors that are both significant as well as insignificant. This included multiple regression analysis to show the strength of existing relationships among study variables. The results were then presented using Tables.

In order to determine the existing relationship between adoption of e-commerce and business performance, the following regression model was adopted;

$$Y = \alpha + \beta X_1 + \beta X_2 + \beta X_3 + \beta X_4 + \tilde{\epsilon}$$

Whereby: Y = Sustainable Competitive Advantage

$\alpha$  = Constant

$X_1 - X_4$  = Parameters of ecommerce

B = Regression Coefficient

$\tilde{\epsilon}$  = Error



## CHAPTER FOUR DATA ANALYSIS, FINDINGS AND DISCUSSION

### 4.1 Introduction

The chapter will cover the analysis of data that was gathered as well as the findings. This section as well presented a discussion of the findings in relation to the reviewed literature in previous sections. The study's was to determine ways in which E-Commerce contributes to sustainable competitive advantage of SACCOs that operate in the County of Nairobi.

The study variables included E-Commerce which was the independent variable and sustainable competitive advantage which was the dependent variable. The parameters of the E- Commerce that were considered in this study included strategy alignment, inter organizational linkages, business process integration and organizational agility.

### 4.2 General Information

This subsection presents results from the analysis on the respondent's biography as well as the organization's general data. The researcher sent out 41 questionnaires out of which 36 were returned duly filled. This accounted for 87.8% response rate and was considered adequate to conduct analysis.

#### 4.2.1 Level of Education

The respondents were required to show the attained education levels and the outcome is as shown in the Table 4.1.

**Table 4. 1: Level of Education**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	3	8.3	8.3	8.3
	Undergraduate	29	80.6	80.6	88.9
	Post graduate	4	11.1	11.1	100.0
	Total	36	100.0	100.0	

Source: Survey Data, 2020

The Table 4.1 illustrates a significant percentage of respondents had attained undergraduate education as represented by 80.6%, while post graduates were at 11.1% and lastly diploma holders represented by the value of 8.3%. These results imply that the respondents were qualified to give reliable information to be used in the study.

#### 4.2.2 Work Experience

This section required the respondents to show the period of time worked in their respective firms. The findings are depicted in Table 4.2

**Table 4. 2: Work Experience**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 5-10 years	2	5.6	5.6	5.6
10-20 years	20	55.6	55.6	61.1
Above 20 years	14	38.9	38.9	100.0
Total	36	100.0	100.0	

Source; Survey data, 2020

Table 4.2 indicates that majority of the respondents had served in their respective firms for 10- 20 years which accounts for 55.6%, and 38.9% accounted for those who had served for more than 20 years. Those who had worked for 5-10 years accounted for 5.6% of the respondents. These findings imply that a most respondents had the necessary exposure and experience to comprehend the concepts being studied as well as provide the required data.

#### 4.2.3 Age of Respondents

The researcher asked the respondents to show their age brackets. The outcome is as shown in the Table 4.3

**Table 4. 3: Age of Respondents**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 26-30 years	5	13.8	13.8	13.8
31-40 years	11	30.6	30.6	44.4
Above 40 years	20	55.6	55.6	100.0
Total	36	100.0	100.0	

Source: Survey Data, 2020

Findings as shown in Table 4.3 indicate a significant proportion of the respondents were in the age bracket of above 40 years accounting for 55.6%, followed by those who were in the 31-40 years bracket accounting for 30.6% and lastly were those who were between 26-30 years accounting for 13.9 %. These results imply exposure of a large number of respondents to work environment which means they had the necessary information that would have been relevant for this study.

#### 4.2.4 Years of Operation

This section seeks to ascertain the length of operations for the institutions and the results are as depicted in Table 4.4

**Table 4. 4: Period of Existence**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 11-15 years	14	38.9	38.9	38.9
Above 15 years	22	61.1	61.1	100.0
Total	36	100.0	100.0	

Source: Survey Data, 2020

The Table 4.4 shows that majority of the Saccos had been in operations for over 15 years accounting for 61.1% while those that had been operational for 11-15 years accounted for 38.9% of the total respondents. These results mean that the institutions had been

operational long enough and had developed structures thus making them fit context for this study.

#### 4.2.5 Number of employees

This section explored the total employee count in the respective institutions where the output is as illustrated in Table 4.5

**Table 4. 5: Number of Employees**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 5-10 employees	4	11.1	11.1	11.1
11-30 employees	13	36.1	36.1	47.2
More than 30 employees	19	52.8	52.8	100.0
Total	36	100.0	100.0	

Source: Research Data, 2020

The Table 4.5 illustrates that a significant number of Saccos had more than 30 employees represented by a figure of 52.8%, while those with 11-30 employees accounted for 36.1% followed by those that have 5-10 employees accounting for 11.1%. This results imply that majority of the Saccos had more employees to serve their clients.

#### 4.2.6 Members of Sacco

The respondents were required to show the number of members in each of their Saccos.

The findings are as shown in the Table 4.6

**Table 4. 6: Sacco Membership**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 500- 1000 members	6	16.7	16.7	16.7
1001- 2000 members	7	19.4	19.4	36.1
More than 2000 members	23	63.9	63.9	100.0
Total	36	100.0	100.0	

Source: Survey Data, 2020

Table 4.6 reveals that majority of Saccos had more than 2000 members as represented by a figure of 63.9%, while those who have 1001-2000 represented by a figure of 19.4%. The findings also indicated that Saccos that had 500- 1000 members accounted for 16.7% of the total Saccos. This indicated that the Saccos had established a significant client base to provide their services to them.

#### **4.2.7 Provision of FOSA Services**

The researcher was looking to establish whether the Saccos had FOSA services and the results are shown in the Table 4.7

**Table 4. 7: FOSA Services**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	36	100.0	100.0	100.0

Source: Survey Data, 2020

The findings in the Table 4.7 show that all the Saccos provided FOSA services to their clients as accounted by a figure of 100%. This implies that all the Saccos had set up systems and processes that would enable provision of front office services to their clients.

### **4.3 Descriptive Statistics**

#### **4.3.1 E- Commerce Deployment**

The respondents were asked to indicate the extent their respective Saccos had deployed E-Commerce for the various parameters that were listed. The scale used was a 5 point likert scale where 1 denoted the lowest extent while 5 is the highest extent. The Table 4.8 depicts the results.

**Table 4. 8: E-Commerce Deployment**

	Mean	Std. Deviation
Payment Facilitation	4.3056	.66845
Customer communication	3.9444	.79082
Track inventory and customer transactions	4.0833	.69179
To make and receive inquiries from customers as well as customers	4.0556	.92410
Make as well as receive inquiries from both customers, shareholders and customers	4.0000	.67612
To receive and give instructions	3.9444	1.01262
In executing instructions	4.0556	.79082
In engaging customers	4.1389	.79831
Valid N (listwise)		

Source: Survey Data, 2020

The Table 4.8 indicate that majority of the respondents strongly agreed that ecommerce had enabled facilitation of payment as well as customer communication as reflected by a 4.30 and 3.94 mean with 0.67 and 0.79 SD respectively. E-commerce being used in tracking inventory and customer transactions as well as in making inquiries from customers, the results showed that a large proportion of respondents were positive with a mean of 4.08 and 4.06 and a SD of 0.69 and 0.92 respectively. As to whether Ecommerce was being used in making inquiries from customers, shareholders and suppliers as well as in receiving and giving instructions, the findings indicated majority of respondents being in agreement with means of 4.00 and 3.94 and SD of 0.68 and 1.01 consecutively. As to whether to using ecommerce to execute instructions as well as in engaging customers, the findings posted 4.05 and 4.13 mean and 0.79 and 0.79 SD respectively implying strong agreement by majority of respondents

### **4.3.2 Strategy Alignment**

The question analyzed extent of agreement with the statements on strategy alignment in relation to ecommerce. A 5 point likert -scale was applied whereby 1 is the least while 5 is the highest level. The results are displayed in the Table 4.9.

**Table 4. 9: Strategy Alignment**

	Mean	Std. Deviation
The ecommerce strategies are consistent with the overall business strategy	3.9444	.79082
Ecommerce supports bridging of departments	4.08333	.731925
Ecommerce has enabled the organization align strategies for different departments	4.0278	.55990
Ecommerce has enabled measurement of performance in relation to set objective more simplified	4.1944	.70991
Valid N (listwise)		

Source: Survey Data, 2020

The Table 4.9 indicates that a significant number of respondents agreed on ecommerce strategies being consistent with the overall business strategy and that it also supported bridging of departments recordings a mean of 3.94 and 4.08 and 0.79 and 0.73 SD respectively. With regards to Ecommerce enabling the organizations in aligning strategies for different departments as well as enabling simplification of measurement of performance in relation to set objective the findings indicated majority of the respondents in agreement as reflected by means of 4.02 and 4.19 and SD of 0.56 and 0.71 respectively

### 4.3.3 Inter organizational Linkages

The question analyzed the extent of agreement with the statements on inter organizational linkages in relation to ecommerce. A 5 point likert scale was adopted whereby 1 is the least while 5 is the highest level. The findings are as illustrated in the Table 4.10.

**Table 4. 10: Inter Organizational Linkages**

	Mean	Std. Deviation

Ecommerce has helped establish partnerships with both customers and suppliers	3.9722	.60880
Ecommerce has facilitated flawless flow of resources	3.7500	.80623
Ecommerce has enabled the organization form collaborative relationship with other organizations in the industry	3.9722	.73625
Ecommerce had enable the organization handle environmental complexity uniquely	4.0556	.67377
Valid N (listwise)		

Source: Survey Data, 2020

The Table 4.10 presents the results which show that a large proportion of respondents strongly agreed that E- Commerce had helped establish partnerships with both customers and suppliers Ecommerce as well as in facilitating a flawless flow of resources posting means of 3.97 and 3.75 and a SD of 0.61 and 0.81 respectively. The results further indicated that E-Commerce enabling the organization to form collaborative relationship with other organizations in the industry as well as enabling the organization in handling environmental complexity uniquely, there was strong agreement among respondents with a 3.97 and 4.06 mean and a 0.74 and 0.67 SD respectively.

#### 4.3.4 Business Process Integration

The question inquired the extent of agreement with the statements on business process integration in relation to E-Commerce. A 5 point Likert scale was applied whereby 1 is the least while 5 is the highest level. The output is as displayed in the Table 4.11.

**Table 4. 11: Business Process Integration**

	Mean	Std. Deviation
--	------	----------------



Ecommerce has enabled standardize business processes	4.4444	.65222
Ecommerce has enabled organization develop unique organization specific processes	4.1944	.62425
Ecommerce has enabled organizations integrate their business processes	4.3611	.68255
Ecommerce has enabled organizations monitor processes more easily	4.1111	.57459
Valid N (listwise)		

Source: Survey Data, 2020

The Table 4.11 illustrates that most respondents agreed that E-Commerce had enabled standardization of business processes as well as helping organizations in developing unique organization specific processes with a 4.44 and 4.19 mean and 0.65 and 0.62 SD respectively. With reference to E-Commerce enabling organizations integrate their business processes as well as in monitoring the processes more easily, the results showed that a significant proportion of the respondents recorded a 4.36 and 4.11 mean and 0.68 and 0.57 SD respectively.

#### 4.3.5 Organizational Agility

The question inquired the extent of agreement with the statements on organizational agility in relation to E-Commerce. A 5 point likert was used whereby 1 is the least while 5 is the highest level. The output is demonstrated in the Table 4.12.

**Table 4. 12: Organizational Agility**

	Mean	Std. Deviation
Ecommerce has enabled the organization to be more adaptable to the ever changing environment	4.5000	.60945
Ecommerce has enabled the organization be more flexible and responsive	4.3056	.70991
Ecommerce has enabled organizations to be more customer oriented	4.2778	.65949
Ecommerce has enabled the organization move from ridgid traditional leadership styles	4.3889	.64488

Valid N (listwise)		
--------------------	--	--

Source: Survey Data, 2020

The Table 4.12 illustrates that a majority respondents agreed that E-Commerce had enabled the organization to be flexible to the ever fluctuating operating environment as well as to be more flexible and responsive posting means of 4.50 and 4.31 and a 0.61 and 0.71 SD. With regards to E-Commerce enabling organizations to be more customer oriented as well as to move from rigid traditional leadership styles, the results showed that a significant number of respondents strongly agreed as indicated by means 4.28 and 4.39 and a standard deviation of 0.66 and 0.64 respectively.

**4.4 Regression Analysis**

This study focused on determining the ways in which E-Commerce contributes to sustainable competitive advantage of SACCOs that operate in the County of Nairobi. The parameters for the independent variable included strategy alignment, inter organizational linkages, organizational agility and business process integration. The regression model that was adopted was;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

- Where; Y represented the dependent variable (Sustainable Competitive advantage)
- X<sub>1</sub> represented strategy alignment
- X<sub>2</sub> is represented inter organizational linkages
- X<sub>3</sub> is represented business process integration
- X<sub>4</sub> represented organizational agility
- β<sub>1</sub> to β<sub>4</sub> represented the regression coefficients of the independent variable
- c was the Constant
- ε the error term

**Table 4. 13: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
-------	---	----------	-------------------	----------------------------

1	.420 <sup>a</sup>	.176	.070	.18290
---	-------------------	------	------	--------

a. Predictors: (Constant), Organizational Agility, Inter-organizational Linkages, Strategy Alignment, Business Process Integration

Source: Survey Data, 2020

The Table 4.13 demonstrate that  $R$  is 0.420 and  $R^2$  is 0.176. The results show that sustainable competitive advantage of Saccos can be explained up to 42% by adoption of E-Commerce. The findings further reveal that 17.6% of the variation in sustainable competitive advantage of the Saccos can be explained by variations in parameters of E-Commerce implemented by the Sacco. This means that 82.4% of sustainable competitive advantage of the Saccos is explained by other variables not covered by the research.

**Table 4. 14: ANOVA**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.222	4	.056	1.661	.018 <sup>b</sup>
	Residual	1.037	31	.033		
	Total	1.259	35			

a. Dependent Variable: Sustainable Competitive Advantage

b. Predictors: (Constant), Organizational Agility, Inter-organizational Linkages, Strategy Alignment, Business Process Integration

Source: Survey Data, 2020

The Table 4.14 presents the ANOVA results . This output indicates that at  $\alpha= 5\%$ , the F value is 1.661. The p value of  $0.018 < 0.05$  is significant implying that E-commerce parameters are significant in predicting sustainable competitive advantage Saccos.

**Table 4. 15: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.222	.617		6.838	.000
	Strategy Alignment	.067	.093	.143	.718	.047
	Interorganizational Linkages	.121	.099	.203	1.220	.023
	Business Process Integration	.178	.140	.279	1.271	.021

Organizational Agility	.153	.096	.299	1.591	.012
------------------------	------	------	------	-------	------

a. Dependent Variable: Sustainable Competitive Advantage

Source: Survey Data, 2020

The regression coefficients illustrated in Table 4.15 show that a relationship exists between E-Commerce and sustainable competitive advantage of Saccos. Strategy alignment posted  $p=0.047 < 0.05$ , Inter organizational linkages posted  $p=0.023 < 0.05$ , Business process integration posted  $p= 0.021 < 0.05$  and Organizational agility posting  $p=0.012 < 0.05$ . This Significance test was conducted at  $\alpha=0.05$  in which is significant when  $p$  records a value  $< 0.05$ . The results show that the parameters of E-Commerce possess a significant association with sustainable competitive advantage of Saccos.

The linear model then stands to be;

$$Y= 4.222 +0.067X_1 + 0.121X_2 + 0.178X_3 + 0.153X_4 + \epsilon$$

As per the findings, when all other independent factors are held constantly, increasing the strategy alignment parameter in relation to E-Commerce by a single unit translates to a 0.067 variation in sustainable competitive advantage of Saccos, strengthening inter organizational linkages parameter in relation to E-commerce by a single unit will produce a 0.121 change in sustainable competitive advantage of Saccos, increasing business process integration parameter in relation to E-Commerce by a single unit will result to a 0.178 change in sustainable competitive advantage of Saccos and improving organizational agility parameter in relation to E-Commerce by a single unit will produce a 0.153 change in sustainable competitive advantage of Saccos.

#### **4.5 Discussion of Results**

The results showed that all the Saccos provided FOSA services to their customers, accounting for 100% of the total Saccos. With regards to the extent to which the Saccos had deployed E-Commerce, the results showed that a significant proportion of the respondents strongly agreed on the role E-Commerce played in facilitating payments, tracking inventory and customer transactions, making and receiving inquiries from various stakeholders as well as in executing instructions and engaging customers as indicated by the high means recorded.

With regards to Strategy alignment in relation to Ecommerce, a significant proportion of the respondents indicated strongly agreement that the ecommerce strategies were consistent with the overall business strategy and that it supported bridging of departments as well as alignment of strategies and performance measurement. With regards to Inter organizational linkages in relation to Ecommerce, a significant proportion of the respondents were in agreement that Ecommerce had facilitated establishment of partnerships with customers as well as suppliers, flawless flow of resources, in formation of collaborative relationships with other firms as well as in handling organizational complexities.

The results show that a significant percentage respondents were on consensus on Ecommerce having positively influenced the business process integration within the Saccos. This was in relation to business standardization, formation of organization specific process that were unique, in integrating their business processes and providing ease in monitoring their businesses. With regards to organizational agility in relation to E-Commerce, the results showed that a large proportion of the respondents agreed that

ecommerce had enabled organizational adaptability, flexibility and responsiveness as well as movement from rigid traditional leadership styles and to be more customer oriented.

The results indicated as well that with regards to regression analysis, the parameters of E-Commerce had a significant relationship with sustainable competitive advantage. This research is supported by that done by Sanders (2007) who found that organizations benefit when they adopt the various e-commerce technologies. It is also supported by Odwesso (2011) who found that ecommerce impacted the sustainable competitive advantage of firms.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This section will present the summary, the study's conclusions and also the recommendations that will be made in consideration of the results obtained from the analysis. The researcher also provides suggestions for areas that may need further research on areas where gaps were realized in the course of this research.

The study focused on determining the ways in which E-Commerce contributes to sustainable competitive advantage of SACCOs that operate in the County of Nairobi. The parameters used to measure the independent variable included strategy alignment, inter organizational linkages, business process integration and organizational agility

The research employed a descriptive survey design and used primary data collected by use of questionnaires. The context of this study was the Saccos that run their operations in Nairobi City County. Descriptive and inferential statistics were applied for analyzing the data collected and the output presented in Tables and further discussed.

#### 5.2 Summary

The study's results showed that a large proportion of the respondents had attained undergraduate education as accounted by 80.6% of the total respondents, and that majority were above the age of 40 years with representation figures standing at 55.6%. With regards to work experience, the results showed that most the respondents had work experience spanning 1- 20 years. Findings also showed that 61.1% of the Saccos had been operational for over 15 years and 38.9% had been operational for 10- 15 years. The findings further showed that majority of the Saccos had employed more than 30

employees accounting for 52.8% and that majority of the Saccos had more than 2000 members as indicated by a value of 63.9%

The findings also showed that all the Saccos provided FOSA services to their customers, accounting for 100% of the total respondents. With regards to the extent to which the Saccos had deployed E-Commerce, the results reflected a high proportion of the respondents in agreement on the role E-Commerce played in facilitating payments, tracking inventory and customer transactions, making and receiving inquiries from various stakeholders as well as in executing instructions and engaging customers as indicated by the high means recorded.

With regards to Strategy alignment in relation to Ecommerce, most respondents alluded that ecommerce strategies being consistent with the overall business strategy and that it supported bridging of departments as well as alignment of strategies and performance measurement, posting high overall mean of 4.06. With regards to Inter organizational linkages in relation to Ecommerce, the respondents were in agreement that Ecommerce had facilitated establishment of partnerships with customers as well as suppliers, flawless flow of resources, in formation of collaborative relationships with other firms as well as in handling organizational complexities, posting an overall mean of 3.93.

The results showed as well that a large proportion of the respondents were positive that Ecommerce had positively influenced the business process integration within the Saccos. This was in relation to business standardization, formation of organization specific process that were unique, in integrating their business processes and providing ease in monitoring their businesses, posting an average mean of 14.03. With regards to organizational agility in relation to E-Commerce, the results showed that a large number



of respondents admitted that ecommerce had enabled organizational adaptability, flexibility and responsiveness as well as movement from rigid traditional leadership styles and to be more customer oriented as reflected in the overall mean of 4.36.

The results revealed that on the subject regression analysis, the p values recorded included 0.047 for strategy alignment, 0.023 for inter organizational linkages, 0.021 for business process integration and 0.021 for organizational agility, which were all less than 0.05 thus implying that the parameters of E-Commerce had a significant relationship with sustainable competitive advantage. The coefficients recorded included 0.067 for strategy alignment, 0.121 for inter organizational linkages, 0.178 for business process integration and 0.153 for organizational agility.

### **5.3 Conclusion**

This research focused on determining the ways in which E-Commerce contributes to sustainable competitive advantage of SACCOs that operate within the County of Nairobi. With reference to the study findings, the researcher reaches the following conclusions. Majority of the Saccos operating in Nairobi City County have adopted E-Commerce to aide them in carrying out their operations. Further, these Saccos depend on the E-Commerce platform to improve their operations with regards to management of relationships and interactions between different stakeholders.

Considering that a large number of respondents were in agreement with the statements outlining the role the different parameters of E-Commerce played in enhancing sustainable competitive advantage, the researcher also concludes that Saccos use E-Commerce for various functions including strategy alignment, in forming inter

organizational links, in integrating their business processes as well as in developing their organizational agility.

The regression model illustrates the positive relationship that is significant between E-Commerce and sustainable competitive advantage. The study therefore further concludes that by adopting E-Commerce, Saccos are able to achieve a positive impact on the sustainability of their competitive advantages. This is because of the enhanced operations that lead to increased profitability and enhanced customer relationships.

#### **5.4 Recommendations**

The researcher makes recommendations that are in relation to the research findings and the conclusions. The researcher recommends training to be conducted to enable the Saccos to be aware on how to maximize the benefits of using E-Commerce. By understanding the role and use of E-Commerce systems, more Saccos will embrace it and apply it in their daily operations thus enhance their productivity.

The technical aspects of E-Commerce require users to be well versed with technology since age, level of education and gender are argued to be key factors in the adoption of E-Commerce. The researcher therefore recommends that Saccos can consider hiring more people who are specialized in information technology so that they can champion the adoption and use of the system.

Lastly, majority of the Saccos continuously engage in building their systems and structures to ensure that they are able to match the demands of the clients. Considering this, the researcher recommends that the institutions should have a budget allocation that will ensure sufficient funds are directed towards acquiring systems that will serve the institutions more efficiently and sustainably.

### **5.5 Suggestions for Further Studies**

Considering the importance of technology in today business environment and most especially to businesses, the researcher suggests that research can be conducted to ascertain the extent of adoption of E-Commerce by firms in the financial sector. This will enable better understanding on how many organizations have adopted the system as well as the driving forces behind the adoption.

The researcher further proposes a similar research to be carried out to understand the role E-Commerce plays in enhanced competitive advantage but in a different context. This will enable comparison of findings thus provide a wider perspective and understanding of the concepts, as well as identify the differences and the causes of such differences.

Lastly, the researcher suggests that further studies be conducted on strategies to successfully adopt and utilize E-Commerce platforms by organizations. This will provide more insights on the best ways to acquire such systems and fully implement in the organization as majority of the Saccos that haven't yet fully adopted the use of E-Commerce platforms present sentiments on adoption challenges.

## REFERENCES

- Aaker, D.A., and G.S. Day, (1990). *Marketing Research*, New York: Wiley.
- ABS. (2005). *Communications and Information Technology: Use of Information Technology*. Australian Bureau of Statistics.
- Barnes, D., M. Hinton, and S. Mieczkowska. (2003). Competitive advantage through e operations, *TQM & Business Excellence* 14(6), 659-675.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage, *Journal of Management* 17(1), 99-120.
- Barney, J. B. (1995). Looking inside for competitive advantage, *Academy of Management Executive* 9(4), 49-61.
- Barney, J. B., M. Wright, and D.J.J. Ketchen. (2001). The resource-based view of the firm: Ten years after 1991, *Journal of Management* 27, 625-641.
- Basu, V., E. Hartono, A.L. Lederer, and V. Sethi. (2002). The impact of organizational commitment, senior management involvement, and team involvement on strategic information systems planning, *Information & Management*, 39(6), 513-524.
- Bergen, M., S. Dutta, and O.C.J. Walker. (1992). Agency relationships in marketing: a review of the implications and applications of agency and related theories, *Journal of Marketing*, 561-24.
- Bharadwaj, A.S. (2000). A resource-based perspective on information technology capability and firm performance: an empirical investigation, *MIS Quarterly* 24(1), 169-196.
- Bharadwaj, A.S., V. Sambamurthy, and R.W. Zmud. (1999). IT capabilities: theoretical perspectives and empirical operationalization. In the Proceedings of the 20th International Conference on Information Systems, pp. 378-385, *Association for Information Systems, Charlotte, North Carolina, USA*.
- Boachie-Mensah, F., & Acquah, I.S.K. (2015). The effects of innovation types on the performance of small and medium-sized enterprises in the Sekondi-Takoradi metropolis. *Archives of Business Research*, 3(3), 77-98.
- Boddy, D., A. Boonstra, and G. Kennedy. (2001). *Managing the Information Revolution*, Harlow, England: Financial Time Prentice Hall.
- Borman, M. (2006). Assessing joint service opportunities through a consideration of the motivating and constraining factors, *Australasian Journal of Information Systems* 14(1), 27-42.

- Bogecho, M. (2011). *Sources of Sustainable Competitive Advantage among Milk Processing Companies in Kenya*, Unpublished MBA project, School of Business, University of Nairobi.
- Burke, K. (1969). *A Grammar of Motives*, Berkeley: University of California Press.
- Cameron, A. (2005). *Analyzing agility and competitiveness*, Information Age August/September 38-40.
- Carpenter, G.S., and K. Nakamoto. (1994). Reflections on "consumer preference formation and pioneering advantage," *Journal of Marketing Research* 31(4), 570-573.
- Carr, N.G. (2003). *IT doesn't matter*, Harvard Business Review 81(5), 41-49.
- Carr, N.G. (2004a). Does IT Matter? *Information Technology and the Corrosion Of Competitive Advantage*, Boston, MA: Harvard Business School Press.
- Carr, N.G. 2004b. The corrosion of IT advantage: strategy makes a comeback, *Journal of Business Strategy* 25(5), 10-15.
- Carson, D., A. Gilmore, K. Gronhaug, and C. Perry. (2001). *Qualitative Research in Marketing*, London: Sage.
- Casciaro, T., and M.J. Piskorski. (2005). Power imbalance, mutual dependence, and constraint absorption: a closer look at resource dependence theory, *Administrative Science Quarterly* 50, 167-199.
- Chaffey, D. (2004). *E-Business and E-Commerce Management*, Harlow, England: Financial Times Prentice Hall.
- Choudhrie, J., A. Papazafeiropoulou, and H. Lee. (2003). A web of stakeholders and strategies: a case of broadband diffusion in South Korea, *Journal of Information Technology* 18, 281-290.
- Conner, R.K. (1995). *Obtaining strategic advantage from being imitated: when can encouraging "clones" pay?*, Management Science 41(2), 209-225.
- Cope, O., and D. Waddell. (2001). An audit of leadership styles in ecommerce, *Managerial Auditing Journal* 16(9), 523-529.
- Dahlbom, B., and L. Mathiassen. (1997). The future of our profession, *Communications of the ACM* 40(6), 80-89.
- Davenport, T.H. (1998). *Putting the enterprise into the enterprise system*, Harvard Business Review 76(4), 121-131.

- Dehning, B., and V.J. Richardson. (2002). Returns on investments in information technology: a research synthesis, *Journal of Information Systems* 16(1), 7-30.
- Denzin, N.K. (1989). *The Research Act: A Theoretical Introduction to Sociological Methods*, Englewood Cliffs, NJ.: Prentice Hall.
- Dick, B. (1994). *Convergent Interviewing*, Brisbane: Interchange.
- Hitt, M.A., Ireland, R.D. and Hoskisson, R.E., (1997). *Strategic Management and Globalization Competitiveness & Globalization*, 2nd Edition, West Publishing Company
- Johnson, G., Scholes, K., and Whittington, R. (2008). *Exploring Corporate Strategy*, Prentice Hall, 8th edition
- Kasyoka, N. (2011). *The use of Strategic Positioning to Achieve Sustainable Competitive Advantage at Safaricom*, Unpublished MBA project, School of Business, University of Nairobi.
- Lynch, R (2009) *Strategic Management*, 5th edition, Prentice Hall
- Mwaseru, P. M. (2011). *Strategies used by Diversy Eastern and Central Africa Limited to Create Sustainable Competitive Advantage*, Unpublished MBA project, School of Business, University of Nairobi
- Odwesso, B. (2011). *Building Sustainable Competitive Advantage in the Mobile Telephone Industry in Kenya*, Unpublished MBA Research Project, School of Business University of Nairobi, Kenya
- Onen, D. and Oso, W.Y. (2009). *A General Guide to Writing Research Proposal and Report, A Handbook for Beginning Researchers*, Revised edition, The Jomo Kenyatta Foundation
- Paul, D. L and Jeannne, E. O (2005). *Practical Research, Planning and Design*, 8th edition, Prentice Hall
- Pearce, J.A and Robinson, R.B (1997). *Strategic Management, Formulation, Implementation and Control*, 6th Edition Irwin McGraw Hill
- Porter, M.E. (2004). *Creating and Sustaining Superior Performance*. Free Press
- Porter, M.E(1998). *Competitive Advantage: Creating and Sustaining Superior Performance*, New York Press
- Porter, M. E.(1985). *Competitive Advantage; Creating and Sustaining Superior Performance*, New York: The Free Press

Robinson, R.B. and Pearce, J.A. (1997). *Strategic Management-Formulation, Implementation and Control*, 6th Edition, Irwin McGrawHill.

SACCO Supervision Report, Deposit Taking SACCOs (2019), SACCO Societies Regulatory Authority (SASRA).

## APPENDICES

### Appendix I: Research Questionnaire

Dear Respondent,

This questionnaire is on ecommerce and sustainable competitive advantage of Saccos that have adopted the application. Kindly provide the required responses to the best of your ability. Assurance is given that information provided by the respondents will be exclusively applied in academic purposes.

#### PART A:

##### Section 1: Demographic Data

1. Gender                      Male [ ]                      Female [ ]

2. Education Achievement

- Diploma                      [ ]
- Undergraduate                      [ ]
- Postgraduate                      [ ]

3. Number of Years worked in the organization

- Below 3                      [ ]
- 3-5                      [ ]
- 5-10                      [ ]
- Above 10                      [ ]

4. Indicate your age category

- 18-25                      [ ]
- 26-30                      [ ]
- 31-35                      [ ]
- 36-40                      [ ]
- Above 40                      [ ]

5. Position in the Company



**Section 2: Details of the Sacco**

6. Period of Existence?

1 to 5 years [ ]

6 to 10 yeas [ ]

11 to 15 years [ ]

Above fifteen years [ ]

7. What services does the Sacco offer members?

a) .....

b) .....

c) .....

8: How many employees does your Sacco have?

• Less than 5 [ ]

• Between 5 – 10 [ ]

• Between 11- 30 [ ]

• Over 30 [ ]

9 How many members does your Sacco have?

• Less than 50 [ ]

• Between 50- 100 [ ]

• Between 100-500 [ ]

• Over 500 [ ]

10 Does your Sacco offer FOSA services?

• Yes [ ]

• No [ ]

**PART B:**

**Section 1: Ecommerce and Service Delivery**

11. In your view rate the extent to which your firm has deployed ecommerce for each of the listed parameters below. The scale is from 1 to 5 whereby 1 denotes the lowest extent while 5 is the highest extent

	1	2	3	4	5
1. Payment Facilitation					
2. Customer communication					
3. Track inventory and customer transactions					
4. To make and receive inquiries from customers as well as customers					
5. Make as well as receive inquiries from both customers, shareholders and customers					
6. To receive and give instructions					
7. In executing instructions					
8. In engaging customers					

## Section Two: Ecommerce Parameters

Rate the degree to which the following statements on ecommerce and competitive advantage. The likert scale range is from 1 to 5 whereby 1 is the least while 5 is the highest level.

	1	2	3	4	5
<b>Strategy Alignment</b>					
1. The ecommerce strategies are consistent with the overall business strategy					
2. Ecommerce supports bridging of departments					
3. Ecommerce has enabled the organization align strategies for different departments					
4. Ecommerce has enabled measurement of performance in relation to set objective more simplified					
<b>Inter organizational Linkages</b>					
1. Ecommerce has helped establish partnerships with both customers and suppliers					
2. Ecommerce has facilitated flawless flow of resources					
3. Ecommerce has enabled the organization form collaborative relationship with other organizations in the industry					
4. Ecommerce had enable the organization handle environmental complexity uniquely					
<b>Business Process Integration</b>					
1. Ecommerce has enabled standardize business processes					
2. Ecommerce has enabled organization develop unique organization specific processes					
3. Ecommerce has enabled organizations integrate their business processes					
4. Ecommerce has enabled organizations monitor processes more easily					
<b>Organizational Agility</b>					
1. Ecommerce has enabled the organization to be more adaptable to the ever changing environment					
2. Ecommerce has enabled the organization be more flexible and responsive					
3. Ecommerce has enabled organizations to be more customer oriented					
4. Ecommerce has enabled the organization move from rigid traditional leadership styles					

### Section 3: Ecommerce as a source of Competitive Advantage

Rate the extent to you agree with the following statements on ecommerce and competitive advantage. The likert scale range is from 1 to 5 whereby 1 is the least while 5 is the highest level.

	1	2	3	4	5
1. Ecommerce has really helped impacted Sacco's operation positively					
2. Ecommerce has led to reduction of costs in Saccos					
3. Through Ecommerce there is prompt and efficient service delivery					
4. Since adoption of e-commerce the organization has experienced an increase in membership					
5. There has been a positive influence of Ecommerce on the risk management and lending operations.					
5. Ecommerce effectively eases operations and communication through its different platforms.					
6. Adoption of ecommerce has enabled the organization increase its asset base.					
7. Adoption of e-commerce has enabled the Sacco penetrate more market segments					
8. Adoption of e-commerce has enabled the Sacco with customer retention					

THE END

## Appendix II: List of Registered Saccos in Nairobi City County

1.	Afya Sacco Society td	22	Fundilima Sacco Society Ltd
2.	Airports Sacco Society Ltd	23	Harambee Sacco Sociey Ltd
3	Ardhi Sacco Society Ltd	24	Hazina Sacco Society Ltd
4	Asili Sacco Society Ltd	25	Jamii Sacco Society Ltd
5	Chai Sacco Society Ltd	26	Kencream Sacco Society Ltd
6	Chuna Sacco Society Ltd	27	Kenpipe Sacco Society Ltd
7	Comoco Society Society Ltd	28	Kenya Bankers Sacco Society Ltd
8	Elimu Sacco Society Ltd	29	Kenya Police Sacco Society Ltd
9	Kingdom Sacco Society Ltd	30	Magereza Sacco Society Ltd
10	Mwalimu National Sacco Society Ltd	31	Maisha Bora Sacco Society Ltd
11	Mwito Sacco Society Ltd	32	Nacico Sacco Society Ltd
12	Nassefu SaccO Society Ltd	33	Nation Sacco Society Ltd
13	Nyati Sacco Society	34	Safaricom Sacco Society Ltd
14	Sheria Sacco Society Ltd	35	Shirika Sacco Society Ltd
15	Shoppers Sacco Society Ltd	36	Stima Sacco Society Ltd
16	Taqwa Sacco Society Ltd	37	Unaitas Sacco Society Ltd
17	Tembo Sacco Society Ltd	38	United Nations Sacco Society Ltd
18	Ufanisi Sacco Society Ltd	39	Wanaanga Sacco Society Ltd
19	Ukristo na Ufanisi wa Anglicana Sacco Society Ltd	30	Waumini Sacco Society Ltd
20	Ukulima Sacco Society Ltd	41	Wanandege Sacco Society ltd
21	Telepost Sacco Society Ltd		

Source: SASRA Report, 2019.