ELECTRONIC BANKING STRATEGIES AND COMPETITIVE ADVANTAGE OF COMMERCIAL BANKS IN KENYA

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DECLARATION

This research project is my original work that has not been presented for any award in any other university.

Signature  Date 26th November 2020

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D61/10377/2018

This research project has been submitted for examination with my approval as university supervisor.

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DEDICATION

This is a special dedication to the Almighty God for prevailing and enabling me to complete this project. I also dedicate this to my husband and daughter for supporting and encouraging me throughout my studies. I extend my dedication to my beloved parents for the countless sacrifices and giving me the most excellent foundation that has powered me to get to where I am.

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Special thanks go to my spouse because of endlessly standing with me in this journey and to my kid Imani who has always inspired me to keep on working hard every day.

Moreover, I acknowledge the encouragement and support I got from my family. My mother for being my cheerleader and always inspiring me to remain optimistic in all my endeavors. Finally, I thank the Almighty God for his grace and favor that enabled me to succeed during the course of my studies.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

ANOVA: Analysis of Variance

ATMs: Automated Teller Machines

CBK: Central Bank of Kenya

EBS: Electronic Banking Strategies

ICT: Information Communication Technology

IT: Information Technology

PC: Personal Computers

POS: Point of Sale Terminals

RBT: Resource Based Theory

SPSS: Statistical Package for Social Sciences

U.K: United Kingdom

UTAUT: Unified Theory of Acceptance and Use of Technology

WCI: Weighted Composite Index

ABSTRACT

In the current turbulent, highly competitive contemporary business environment, bank managers are under pressure to implement strategies that will achieve their banks optimal competitiveness. Among the strategies they are largely applying in their pursuit for competitive advantage are electronic banking strategies. However, amidst the banks venturing into electronic banking strategies to maintain their competitiveness, they still have major challenges confronting their competitiveness. It is therefore imperative to interrogate these strategies and their impact on banks' competitiveness, for these strategies to be streamlined accordingly. Unfortunately, few studies have interrogated the influence of EBS on the banks' competitiveness. Existing literature thus lacks sufficient insights for decision making. The motive of this study was to interrogate the EBS and their influence on the banks' competitive advantage in Kenya. It was undertaken using the descriptive cross sectional survey design. By applying a census approach, the entire Kenyan commercial banks were covered. Data was obtained by use of a questionnaire filled by the head of strategy or finance in each of the banks or their assistants. Descriptive statistics and inferential statistics were used for analyzing the data. Results indicated that internet banking, mobile banking, and ATMs have a significant correlation (r) with competitive advantage with r values of 0.678, 0.524 and 0.437 respectively. Use of POS machines was found to have an insignificant correlation of 0.308 with competitive advantage. The research concludes that mobile banking, internet banking, ATMs and POS machines have a positive influence on competitive advantage. However, the influence by POS machines is statistically insignificant while mobile banking, internet banking and ATMs have a significant influence on competitive advantage. It is recommended that banks invest in educating their clients on how to access different services from their diverse e-banking channels. Moreover, they should adopt more innovations on e-banking to ensure that a diverse category of customers are able to access services through e-banking.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Currently, organizations are confronted by pressures emanating from a complex web of forces in the economic, political, social and technological spheres. This has aggravated the intensity of competition in different industries as firms strive towards attaining and maintaining competitiveness. Therefore, as affirmed by Muriuki and Cheruiyot (2017) Strategic management has become fundamental in every organization. Mailu, Ntale and Ngui (2018) indicate that most companies have had to change their strategies in their pursuit for competitive advantage, particularly in the wake of technological advancement. This could explain the paradigm shift by commercial banks from traditional banking model of physical branches to electronic banking strategies (EBS) (Mateka, Gogo & Omagwa, 2016). However, the essence of any organizational strategy is to have customer friendly products/services that yield competitive advantage to the company in terms of customer confidence and brand preference (Muogbo, 2013). This study therefore investigated how EBS affects competitiveness of Kenyan commercial banks.

The research was anchored on two theories. The first theory is the Unified Theory of Acceptance and Use of Technology (UTAUT) that owes its origin to the ideas of Venkatesh et al. (2003), and the second theory is the Resource Based Theory (RBT) that was put forward by Barney (1991). UTAUT explains application and implication of information communication technology (ICT) based strategies in an organization. The theory therefore provided insights on use and implications of electronic banking strategies in the commercial banks. RBT elaborates on how organizations acquire competitiveness by using

their endowments. The theory was therefore used in this study to provide insights about the banks' competitive advantage and whether there are aspects in EBS that enable the banks acquire competitive advantage.

In Kenya, licensed commercial banks are 42 in number and they are in three groups defined by a weighted composite index (WCI). That is, large banks (WCI >5%), medium banks (WCI =1 to 5%) and small banks (WCI <1%) (CBK, 2018a). The banks are confronted by a myriad of challenges in the industry including increment in competition due to rapid technology developments (Mutai & Reuben, 2019). Another major challenge is unprecedented loss of customers. This is mostly due to banking customers decreasing their loyalty to a single bank in their quest for convenience (Maduku, 2014). The banks are strategically responding to these challenges by largely investing in ICT strategies whereby, electronic banking strategies are among the major strategies they are adopting (Mateka, Gogo & Omagwa, 2016). The concern however is, are the banks able to achieve and maintain competitive advantage through these strategies? This study therefore explored how EBS influences Kenyan commercial banks' competitive advantage.

1.1.1 Electronic Banking Strategies

EBS have been defined differently by different scholars. According to Vekya (2017), electronic banking strategies simply refer to the provision of banking services and products mostly retail in nature, via electronic channels. In a more elaborate definition, Lusaya and Kalumba (2018) define EBS as the automation of the delivery of banking services and products in such a manner that customers directly access them through digitalized interactive communication via electronic channels. From these definitions, electronic banking strategies can therefore be considered as the strategies designed to primarily

facilitate as well as enable bank customers to access banking services/products through electronic transactions.

Electronic banking strategies are important in the banking industry because they are largely considered as capable of facilitating fast and convenient customer access to banking services at any time in any place (Selvanathan et al., 2016). According to Liang and Wu (2015), through online banking, customers can readily access financial services like: enquire for information pertaining to their account, pay bills, and transfer money among other services, via electronic means using ICT devices such as mobile phones, personal computers (PC), notebook PC among others. Maduku (2014) indicates that EBS help to reduce operational costs because it eliminates the need for frontline staff for customers to access most retail banking. Moreover, Maduku (2014) adds that through electronic banking, banks have an opportunity of getting new customers, as well as persuading the existing customers to acquire more bank products they may not have such as home loans, additional credit cards among others.

Electronic banking strategies are usually categorized based on the platform for their operations. In this regard, they include: Mobile banking, Automated Teller Machines (ATMs), credit cards and debit cards, personal computer (PC) banking, and web banking (Simon & Senaji, 2016). In Kenya, commercial banks have put in place diverse electronic banking strategies including online/internet banking, point of sale terminals (POS), mobile banking solutions, automated teller machines among others (Monyoncho, 2015). The latest annual report by the CBK revealed that 26 of them have implemented internet banking agreement, 14 of them are connected and 4 more await to be connected to the platform (CBK, 2018a).

1.1.2 Competitive Advantage

Competitive advantage has attracted different definitions among scholars. For instance, Barrett *et al*. (2015) define it as the creative product development processes as well as the innovation ideas in an organization that gives it value than the competitors. Kasasbeh, Harada and Noor (2017) define it as the facets and processes that put an organization ahead of others in the industry.

According to Vanpoucke, Vereecke and Wetzelsa (2014), companies strive to get competitive advantage due to its myriad of benefits including higher competence and increased capacity to seize market opportunities, which enables them to achieve superior performance and create value for the firm. Thus, competitive advantage gives a firm distinct competency that enables it to be outstanding in the market by enabling it to achieve superior performance relative to the competitors. This explains why commercial banks strive to adopt strategies that are geared to enhance competitiveness.

Competitive advantage entails totality of the value adding aspects in an organization that other competitors do not have and they often cannot easily duplicate. These primarily include aspects within but they can also be in the external environment. Internal aspects may include human and capital resources, technology and knowledge within the company that are rare in other organizations; while external aspects are mostly from failure of other competitor organizations (Alalie, Harada & Noor, 2019). To this end therefore, competitive advantage entails both the resources and the strategies or approaches that the firm is utilizing to achieve superior performance. To measure competitive advantage therefore, the various indicators used are: cost effectiveness, responsiveness to customers, market and

product differentiation and increment in sales (Kasasbeh, Harada & Noor, 2017). These were considered in this study.

1.1.3 Commercial Banks in Kenya

The supervision report by CBK (2018b) indicates that there are 42 commercial banks where 39 of them are privately-owned while 3 of them had majority of their shareholding with the Kenyan government. A further analysis indicates that locals own 24 of the private-owned banks while non-locals own the rest 15. Out of the 15 owned by non-locals, majority (12) are subsidiaries while only 3 are branches of their parent foreign banks (CBK, 2018b).

Being in one of the volatile industries, commercial banks are faced with diverse challenges cutting across market and financial integrity, consumer protection, and financial stability issues (Githuku & Kinyuru, 2018). Noah, Jagongo and Ndede (2019) indicated that the challenges are mostly associated with increment in operational costs, bank consolidation, outsourcing, payments and settlements system among others, often forcing them to reengineer their strategies so as to deal with the hurdles. The fundamental question however is how these strategies impact their competitive advantage. This therefore necessitated research to interrogate the strategies in terms of their influence on competitive advantage. Electronic banking strategies being among the major strategies being adopted by the banks, this study assessed their influence on the banks' competitive advantage.

1.2 Research Problem

In the current turbulent, highly competitive contemporary business environment, bank managers are under pressure to implement strategies that will achieve their banks optimal competitiveness. Among the strategies they are largely applying in their pursuit for

competitive advantage are electronic banking strategies. Even so, Gayathri and Vikram (2018) revealed that while electronic banking strategies in deed have advantages of increasing market penetration and enhancing market penetration, there are problems that undermine their ability to achieve the expected competitiveness. These include low problems associated with low IT adoption among customers, regulation, and security among others. This raises the question, how do electronic strategies then impact the banks' competitive advantage in the midst of these issues?

Apparently therefore, amidst the banks venturing into electronic banking strategies to maintain their competitiveness, they still have major challenges confronting their competitiveness. It was therefore imperative to interrogate these strategies and their impact on banks' competitiveness, for these strategies to be streamlined accordingly. Unfortunately, there are few studies that have interrogated the influence of EBS on the banks' competitiveness. Majority of them have concentrated on electronic banking strategies and the way they influence banks' performance financially as opposed to their influence on competitive advantage. As Ma (2000) elaborates, competitive advantage can achieve a firm superior financial performance, but the two are different constructs altogether. Nevertheless, this has been ignored in majority of international and local studies on electronic banking strategies. Moreover, the studies have conceptual, contextual and methodological gaps that make their findings insufficient.

International studies like Sulaiman and Karim (2019) assessed the relationship between electronic banking strategies and customer satisfaction in Palestine. Using descriptive survey design, data was obtained from 347 customers in 8 banks and analyzed through correlation and regression analysis. The study revealed that performance and EBS had a

significant positive influence on customer satisfaction. Nonetheless, although the study assessed EBS, it did not assess how they impacted distinct competitive advantage aspects in the bank. Cajetan (2018) assessed how EBS, customer experiences and financial performance were interrelated in U.K banks. The study used primary data from the banks' customers and secondary data compiled in banks' financial statements. Analysis was done using ANOVA, structural equation modeling and multivariate factor analysis. Findings indicated that electronic banking significantly influence bank performance. The study however assessed the effect of EBS on financial performance aspects and not on competitive advantage aspects. Moreover, both studies (Sulaiman & Karim, 2019; Cajetan 2018) were conducted in different contexts other than Kenya, hence cannot be reliably generalized to Kenyan commercial banks.

Local studies like Njuki (2015) investigated online banking and how it affected commercial banks' competitive advantage in Kenya. Applying descriptive survey design, the study gathered data from digital banking managers using a questionnaire. Using regression analysis and descriptive statistics, the findings revealed that while majority of the banks are using online banking to maintain their competitiveness and remain relevant in the industry, the diverse challenges facing the banks hinder them from enjoying the full benefits of online banking. However, the study focused on online banking only and as such did not comprehensively assess the effect other electronic banking strategies.

Kilonzi (2017) investigated the how mobile banking strategies influenced Kenyan banks' competitive advantage. Using descriptive research design, 40 operations managers were engaged where a structured questionnaire helped to collect data and analysis done through inferential and descriptive statistics. Results also indicated a significant positive effect of

mobile banking on competitive advantage but it did not assess the impact of other electronic banking strategies like ATMs and internet banking.

Venza (2015) assessed how online banking strategies affects banks' competitive advantage in Kenya. Applying descriptive research design, primary data was collected from staffs in IT and Strategy departments in the 43 commercial banks using a questionnaire. Using descriptive statistics analysis, the study found that through online banking, customers had a greater access to more services. However, it was data analysis was exclusively based on descriptive statistics which could not estimate the effect or determine its statistical significance. Therefore, the findings lack sufficient insights for decision making. Thus, existing studies lack sufficient empirical insights that can explain the influence of EBS on bank's competitive advantage. The motive of this study was to interrogate the EBS and their influence on the banks' competitive advantage in Kenya.

1.3 Research Objective

The research interrogated the influence of EBS on commercial banks' competitive advantage in Kenya.

1.4 Value of the Study

Insights from the research are relevant regarding managerial practice in banks. This is because it empirically reveals the implication of EBS on banks' competitiveness. This can help the bank management in decision making on streamlining their electronic banking strategies and in deciding on further investment in the strategies, based on the study findings. This was enhanced by the recommendations that were provided.

Moreover, the results help to guide on managerial policy in the commercial banks. In particular, the results have insights that can be used by the senior banks' management team as well as the CBK as the industry regulator, in formulating business policies that are geared towards addressing operational issues that may be noted, for effective application and regulation of EBS.

It further helps in enhancement of the two theories that were used including: UTAUT and the Resource Based Theory. It enhances UTAUT by empirically reviewing its strengths and weaknesses in explaining the application and impact of electronic banking strategies. The study further enhances the resource-based theory by testing and demonstrating its applicability in describing commercial banks' competitiveness.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Chapter two has the literature considered significant for understanding of the investigation undertaken and addressing the research problem. As such, some relevant theories to the research are reviewed and related empirical studies explored. The various literature gaps that were addressed in this research are highlighted in the review.

2.2 Theoretical Review

While several theories exist in literature pertaining to the concept of application of electronic banking strategies and competitive advantage, only two major theories were considered very relevant in line with the research objective. These include UTAUT and the Resource Based Theory.

2.2.1 Unified Theory of Acceptance and Use of Technology

Venkatesh, Morris, Davis and Davis (2003) introduced the Unified Theory of Acceptance and Use of Technology. UTAUT provides a comprehensive amalgamated theoretical underpinning explaining the application of ICT based strategies in an organization. The theory explains that the successful application of technology based strategies in an organization is based on four major aspects: "performance expectancy (P.E), effort expectancy (E.E.), social influence (S.I.), and facilitating conditions (F.C)" (Venkatesh et al., 2003).

According to the theory, P.E pertains to the level that applying the technological strategy benefits customers in performing particular transactions. E.E is the extent of simplicity that

the strategy grants customers in accessing products/services. S.I is the customers' perception of the benefits of the technology to others, while F.C are the perceptions of the customers on the resources and assistance provided for them in using it (Brown & Venkatesh, 2005). The theory further alleges that the influence of these four aspects on the successful application of the ICT based strategies is further moderated by four variables including: age, gender, experience and voluntariness to use the technology.

Importance of UTAUT in this research is that it helped in assessing ability to meet the four major aspects alleged in the theory as critical for the successful application of ICT based strategies. Furthermore, insights from the theory helped to interrogate how these aspects in the case of electronic banking strategies influence organization's competitive advantage.

2.2.2 Resource – Based Theory

Barney (1991) introduced the resource based theory (RBT) but its original ideas originated from Penrose (1989). According to the theory, a firm's competitive advantage is primarily based on the uniqueness of its resources, processes and capabilities, which enables the firm to make good use of any market opportunity and stay ahead of competitors. However, according to Grant (2001), competitive advantage of the firm cannot be achieved through a single resource or process, but it is attained through a right mix of resources, processes, strategies and capabilities in the firm.

Barney (1991) underscores that for a firm to innovatively transform its competitive advantage from short term to a sustainable long-term competitive advantage, it must ensure that it possesses diverse resources that are mobile. According to Johnson et al. (2008), in RBT, competitive advantage is a product of interrelation between the organization's

internal resources and strategic behavior, giving the firm unique capabilities which are not easily duplicable by other firms.

Importance and application of RBT in this research was to provide insights which helped in assessing application of EBS by banks to achieve competitiveness. That is, whether the diverse electronic banking strategies applied by the banks enables the banks to acquire competitive advantage or not. It also helped to interrogate how each of them contributes to the banks' competitive advantage and how the mix of different electronic banking strategies affects the banks' competitiveness.

2.3 Electronic Banking Strategies and Competitive Advantage

In the contemporary business environment, the direction and framework of technology oriented strategies in an organization is based on their application of ICT in their business processes. This is critical in establishing product and service innovation which results to attainment of competitive advantage over competitors in the industry. This is the goal of the application of electronic banking strategies among commercial banks. Omari and Bataineh (2012) asserts that the banks worldwide are changing from the traditional banking models and maximizing on the use of modern technologies in efforts to enhance their competitive advantage especially due to increased competition in banking sector and growing customer expectations.

Using electronic banking strategies has made it easier to access diverse banking services than in the traditional banking model of physical branches. According to Kiboori (2017), through electronic banking strategies like ATMs, online banking and mobile banking, banks are able to improve their interaction with customers which is critical in attaining

competitiveness. Through electronic banking, transaction costs are reduced both for the banks and the customers especially small and medium enterprises.

Kiboori (2017) underscores that customers tend to prefer electronic banking because it enables them have a 24-hour access to bank services without having to travel to the physical bank branches and access their accounts from anywhere at their convenience. This means that, a bank that applies a right mix of electronic banking strategies supported with adequate ICT infrastructure is likely to gain competitive advantage. The banks on their part, reduce their need to establish branch networks which is costly, through proper application of EBS as well as reduce the human resource involvement in service delivery. Thus, they are able to reduce production costs.

It is therefore apparent that application of electronic banking strategies is visionary and the vision is to attain a competitive advantage for the banks. Thus, as the number of firms increase in different industries and competition gets more aggressive, there is need to investigate the impact of the strategies being used on competitiveness of respective organizations. In this regard, this research investigated how EBS have affected commercial banks' competitive advantage in Kenya.

2.4 Empirical Studies and Knowledge Gaps

Halili (2014) investigated how online banking impacted on bank's performance in five countries in Europe including U. K., Poland, Germany, Latvia and Czech Republic. The study applied descriptive survey design and exclusively used secondary data. Panel data focusing on a twelve year period starting from 1999 to 2010 was analyzed. Analysis was by regression analysis. The findings revealed that online banking and performance

indicators were negatively related. However, the research assessed the effect of application of online banking as an EBS on financial performance and not competitive advantage. As such, findings do not have sufficient insights to explain the impact on the banks' competitive advantage.

Bazini (2015) interrogated electronic banking and its contribution to competitive advantage in Albania. The study applied descriptive survey design where 100 bank customers were issued with a structured questionnaire to fill. Findings indicated that electronic banking enabled the customers have faster access, convenient transactions and save on the transaction costs. The study however did not adequately interrogate the banks competitive advantage and how it was impacted since it assessed customers' perceptions only without interrogating the bank managers' perception who have a better understanding of competitive advantage.

Adejoke and Onyeiwu (2019) investigated how e-banking affected customers' satisfaction in Nigeria using descriptive survey design. The quantitative research methodology was used. Two banks were purposively selected and 100 customers selected from the banks' branches. Correlation and regression analysis were applied. Findings indicated that customer satisfaction was impacted significantly by various diverse aspects of electronic banking service quality. The investigation however, only covered two Nigerian banks and therefore unreliable to generalize to banks especially in other countries.

Nyiranzabamwita and Harelimana (2019) assessed how electronic banking influenced delivery of customer services in Rwanda using descriptive research design. The study covered 400 employees in Bank of Kigali who were sampled using random sampling and provided the data used by filling a questionnaire. After regression analysis, the results

showed that online banking positively influenced changes in customer service delivery. The findings however did not explore the bank's competitive advantage aspects in details to comprehensively elaborate how it was impacted by electronic banking strategies.

Worku, Tilahun and Tafa (2016) examined how electronic banking strategies affected customer satisfaction in Ethiopian banks focusing on Wogagen and Dashen Banks. Descriptive research design was applied, with the researchers collecting data from customers using questionnaires and from branch managers of 4 branches of the two banks using interview guide. Data was analyzed using linear regression analysis, chi-square independency test and t-test. Findings revealed customer satisfaction was positively affected by online banking. However, the study also failed to interrogate the effect of the EBS on the various aspects of the banks' competitive advantage. It was too narrow in scope since it covered only two banks and cannot be generalized to other banks.

Chemtai (2016) investigated how mobile banking affected banks' competitive advantage in Eldoret, Kenya. The research applied explanatory research design and used primary data collected from 161 management staffs in 26 commercial banks operating in Eldoret town using a questionnaire. Through inferential and descriptive statistics, the data was analyzed whereby, results revealed a positive influence of mobile banking on the banks' competitive advantage. However, the study only assessed the effect mobile banking and did not investigate other electronic banking strategies.

Kiboori (2017) investigated the contribution of electronic banking strategies in achievement of banks' competitive advantage focusing Kenya Commercial Bank. Using descriptive research design, 165 employees were sampled and data collected from them using a questionnaire. Findings revealed there was a significant positive effect of EBS on

competitive advantage, PC banking had an insignificant negative effect while debit and credit cards had a significant negative effect on competitive advantage. Results however were drawn from a single bank. Therefore, they cannot reflect the situation in the other banks in the country.

Kinyua (2018) interrogated how online banking influenced banks' efficiency in Kenya. Applying a descriptive cross-sectional design, the study was based on a 5-year period data collected from 42 commercial banks. Multiple linear regression analysis was applied in analyzing the data where it was revealed that online banking has a positive effect on banks' efficiency. These results were however exclusively based on the secondary data analyzed whereas this research intends to consider primary data.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

Chapter three is about the methods and procedures used in undertaking the research. To this end, preferred research design, the study population, and methods of collecting and analyzing data are explained. Furthermore, the basis on which each of them was selected is explained.

Research methodology is very fundamental in a research it determines the achievement of the research objective and solving of the research problem. Thus, appropriate methodology should be carefully selected for reliable results to be obtained.

3.2 Research Design

This according to Odoh and Chinedum (2014) is the master approach that informs how the different activities in a research are carried out. Singh (2014) distinguishes three types of research designs: experimental design, exploratory design and descriptive design.

In the current study, the descriptive cross sectional survey design was preferred in undertaking the research. It was preferred because it has strong ability to describe phenomena in their current state with a high precision (Rahi, 2017). As such, the design was of great help in revealing the current state of the link between EBS and commercial banks' competitiveness.

3.3 Population of the Study

This is the collection of items, people or events on which the study is carried out and distinguished by particular common characteristic(s) (Asiamah, Mensah & Oteng-Abayie,

2017). Thus, all Kenyan commercial banks commercial banks in Kenya constituted the population.

A census approach was used. This is whereby all the units of the study are covered. In this regard, the research covered all the 42 commercial banks. According to Parker (2011), the main advantage of the census approach is that it gives all the targeted respondents an equal opportunity to participate. Moreover, using the census approach increases the degree of accuracy in the findings compared to when sampling is done.

3.4 Data Collection

The research data was obtained using a questionnaire. The advantage of the questionnaire is that it helps to reduce the cost incurred in the research and enables the study to be undertaken in a relatively shorter time (Pavan & Kulkarni, 2014). The questionnaire was designed through the guidance of the supervisor. Most of the questions were closed ended and likert questions, designed to collect quantitative data.

The head office department for each of the banks was identified and the questionnaire was issued to the head of strategy or finance in each of the banks or their assistants. The participants were selected because by virtue of management roles attached to their positions, they possess relevant knowledge and experience for responding to issues under investigation appropriately and give more reliable data. One research assistant helped to administer the tools for data collection. The questionnaires were administered through one on one dialogue with the respondents. However, where one on one dialogue was not possible due to restraints caused by COVID-19 control measures, the questionnaires were administered through emails.

3.5 Data Analysis

Data cleaning was first done where any incompletely filled questionnaires was identified and removed so that only the duly filled ones were considered for analysis. Coding of the data was done it was then entered in a data analysis software particularly SPSS.

Descriptive statistics (frequency, percentage, mean and standard deviation) were applied in data analysis. Moreover, inferential statistics including correlation analysis (based on Pearson's coefficient) and linear regression analysis were applied. The model for the equation was: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$ where: Y is competitive advantage; X_1, X_2, X_3 and X_4 are internet banking, mobile banking, ATMs and POS machines respectively. β_0 = constant; β_1, β_2, and β_3 and β_4 = regression coefficients for the influence of X_1, X_2, X_3 and X_4 respectively; and ε= error term. To present results, charts, graphs and tables were used.

CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

Findings from the analyzed data constitute the contents of chapter four. This is however preceded by a presentation of the background information of the participants. Specifically, it contains results derived from descriptive statistics analysis and inferential statistics analysis independently as well as their statistical meanings as far as the research objective is concerned. Thus, the findings have been interpreted and systematically discussed.

4.2 Background Information

Information on participants' background is presented in section 4.2.1 through 4.2.4. This entails their gender category, age group, their level of education, and the duration they have served in top management in their banks.

4.2.1 Categories of Gender

The study assessed the ratio of men to women among the heads of strategies and finance in the commercial banks. In this regard, respondents were first categorized according to their gender as illustrated in Figure 4.1.

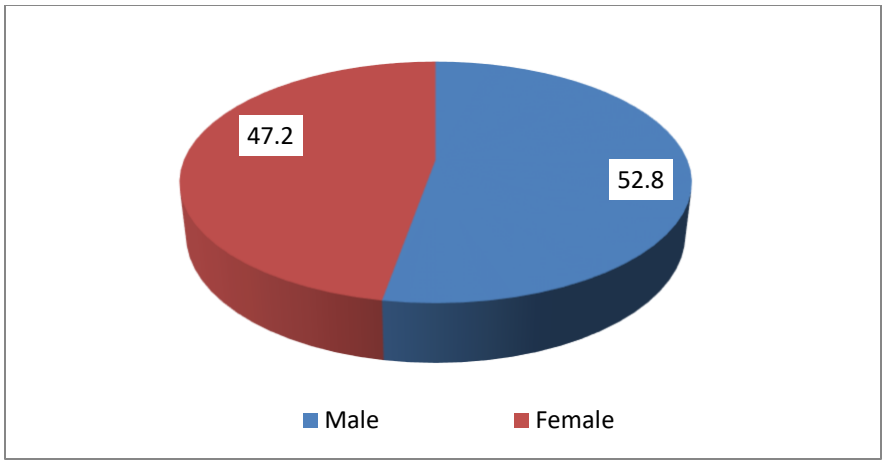

Figure 4.1: Respondents' gender

Male participants were 52.8% while female participants were 47.2%. This indicates that there are more men serving as heads of strategy and or finance in the commercial banks in the country.

4.2.2 Age Level

To understand the age distribution of the heads of strategy and finance in the different commercial banks, the respondents were asked to indicate their age bracket. Their responses were as shown in Figure 4.2.

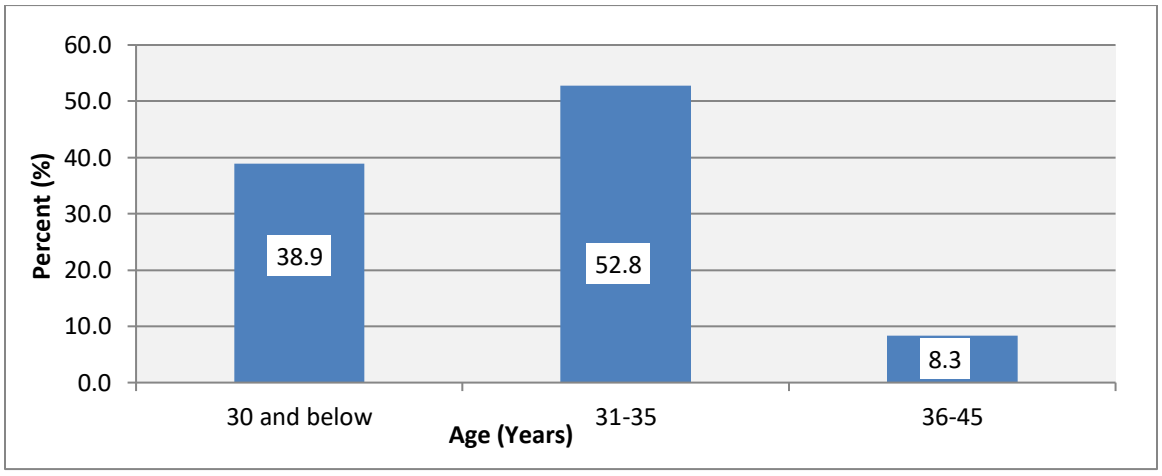

Figure 4.2: Age distribution

Most of the heads of strategy and or finance (52.8%) were between 31-35 years old, followed by those aged below 30years (38.9%) with only a few aged between 36-45years (8.3%).

4.2.3 Education level

Educational qualification for the heads of strategy and finance in the different commercial banks was also investigated. Therefore, to identify their educational qualifications, the respondents were requested to indicate their highest level of education. The responses were as indicated in Figure 4.3.

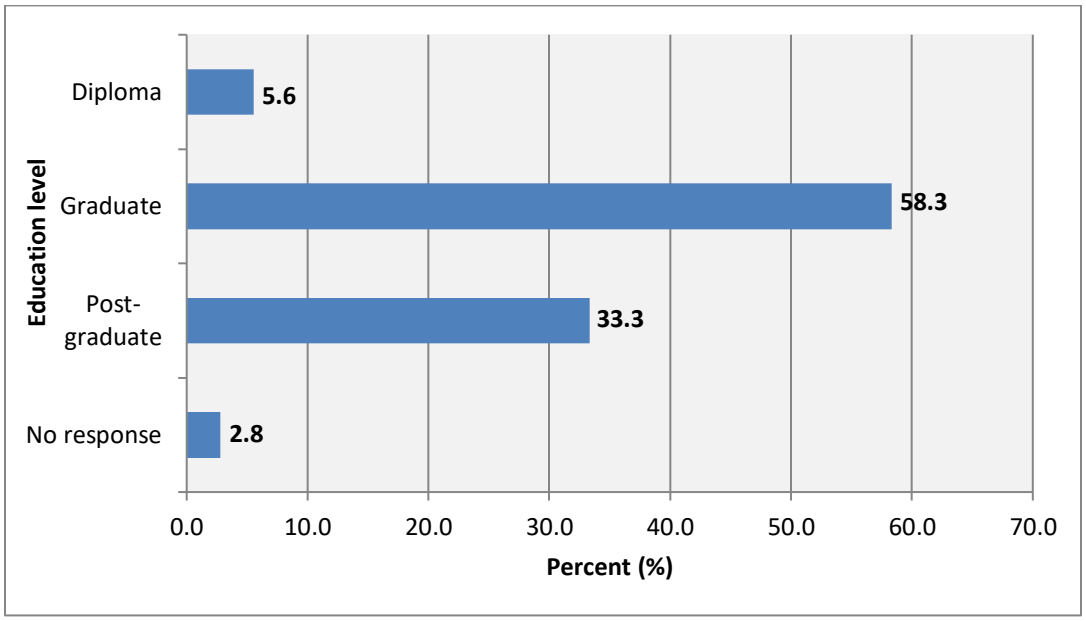

Figure 4.3: Education level distribution

In terms of education level, graduates constituted the highest proportion of heads of strategy and finance (58.3%) while 33.3% were post-graduates. Only 5.6% had diplomas level while few (2.8%) of them did not respond to the question. This shows that heads of strategy and finance in the commercial banks are mostly graduates and post-graduates.

4.2.4 Duration Served in Banks' Top Management

Last but not least on the background information investigated for the heads of strategy and finance was the extent of their experience in top management in the respective commercial banks they worked. In this regard, the respondents were asked to indicate the number of years they had served in top management in the banks and the responses were distributed as shown in Figure 4.4.

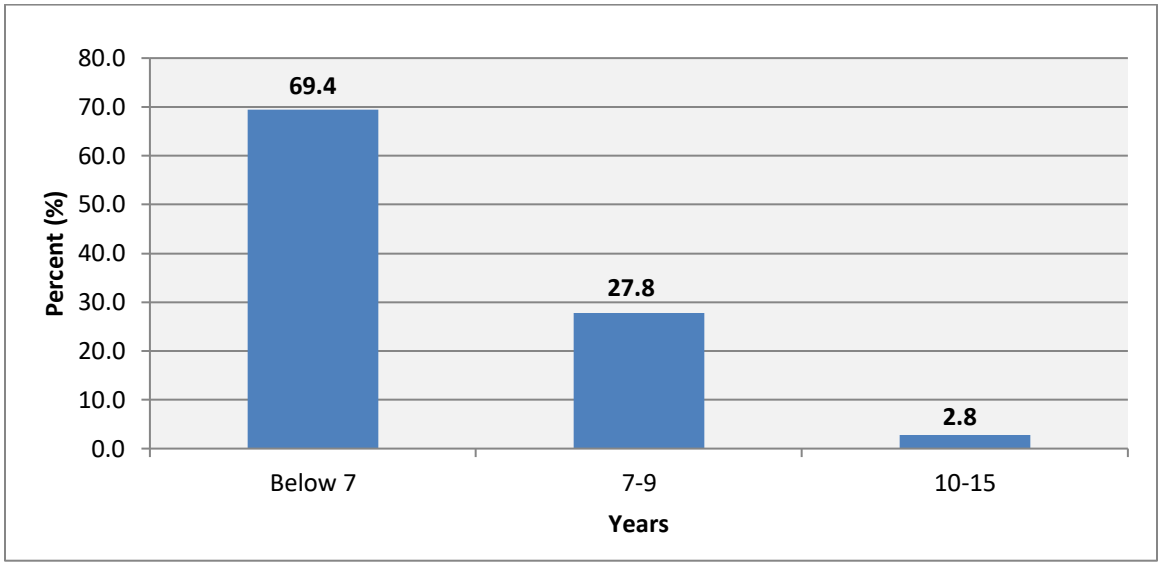

Figure 4.4: Time served in top management

Most of the respondents (69.4%) had served in top management positions for less than 7 years with 27.8% having served for 7-9 years. Only few had worked in top management positions for 10-15 years. This is an indication that most heads of strategy and finance in commercial banks do not serve in the top management in the same bank for more than 10 years.

4.3 Descriptive Statistics

Descriptive statistics analysis was applied to assess various aspects pertaining to electronic banking strategies in the commercial banks and their competitiveness. The aspects were

assessed on a 1-5 likert scale with 1 representing the least prevalence of the aspect and 5 representing its highest prevalence as expressed. Percentage, mean (M) and standard deviation (SD) were therefore determined for each aspect.

4.3.1 Adoption of Different Electronic Banking Strategies

Adoption of EBS was assessed based on the extent to which four different electronic banking strategies had been adopted including internet banking, mobile banking, ATMs and POS. In this regard, respondents rated the extent to which each of these strategies had been adopted in their respective banks on a scale of 1-5. The results were as presented in Table 4.1.

Table 4.1: Adoption of EBS

Strategy	1	2	3	4	5	M	SD
Internet banking	-	2.8	11.1	27.8	58.3	4.42	0.806
Mobile banking	-	-	2.8	27.8	69.4	4.67	0.535
Automated Teller Machines (ATMs)	2.8	8.3	-	25.0	63.9	4.39	1.050
Point of Sale Machines (POS)	11.8	14.7	5.9	23.5	44.1	3.74	1.463
Overall						4.30	0.963

The overall adoption of electronic banking was M= 4.30; SD= 0.963 indicating that the banks have largely adopted EBS. Comparing the level of adoption of the different electronic banking strategies, mobile banking was rated the highest at M= 4.67; SD= 0.535. The least was POS at M= 3.74 though with a relatively high SD of 1.463 that indicates a major variation from the mean in terms of the level of adoption of POS across different banks. Internet banking and ATMs were also highly rated at M= 4.42 and M= 4.39 respectively.

4.3.2 Diversity in Service Transactions via Electronic Banking Channels

To understand the diversity of transactions done through EBS, the respondents were asked to indicate the extent of customers' transactions via EBS for different services. The findings were as presented in Table 4.2.

Table 4.2: Diversity of services accessed via e-banking

Service	1	2	3	4	5	Mean	Std. Dev
Bills/Utility payments	2.8	8.3	44.4	22.2	22.2	3.53	1.028
Loan application	36.1	13.9	13.9	19.4	16.7	2.67	1.549
Credit card/ Loan payment	11.1	13.9	22.2	36.1	16.7	3.33	1.242
Balance inquiry	-	-	8.3	27.8	63.9	4.56	0.652
Blocking Lost/Stolen card	11.1	33.3	11.1	25.0	19.4	3.08	1.360
Inter-account funds transfers	-	5.7	11.4	37.1	45.7	4.23	0.877
Interbank funds transfers	2.8	11.1	16.7	30.6	38.9	3.92	1.131
Standing order instructions	16.7	25.0	19.4	22.2	16.7	2.97	1.362
Making stop order payment requests	19.4	22.2	25.0	16.7	16.7	2.89	1.369
Bulk payments	14.3	17.1	14.3	34.3	20.0	3.29	1.363
Statement generation	2.8	5.6	13.9	25.0	52.8	4.19	1.064
Viewing account transactions	-	5.7	22.9	22.9	48.6	4.14	0.974
Overall						3.57	1.164

The level of diversity in customer transactions via electronic banking channels in terms of services accessed was rated at M= 3.57; SD= 1.164. Therefore, diversity of customers' transactions via electronic banking channels is at moderate level in most of the banks. Customers largely transact via electronic banking channels for some services including:

balance inquiry (M= 4.56), inter-account funds transfers (M= 4.23), statement generation (M= 4.19) and viewing account transactions (M= 4.14). On the other hand, they least use electronic banking for loan application (M= 2.67), making stop order payment requests (M= 2.89) and standing order instructions (M= 2.97).

4.3.3 Perception on Application of Electronic Banking

The study also interrogated the perception of the heads of strategy and finance in the banks regarding the application of EBS. In this regard, a set of five (5) statements was presented to them pertaining to various aspects on the application of EBS. The respondents were required to indicate their agreement or disagreement with the statements on a scale of 1-5. The findings were as shown in Table 4.3.

Table 4.3: Perception on application of e-banking

Statement	1	2	3	4	5	Mean	Std. Dev
The application of electronic banking strategies has largely benefited customers in performing many transactions	2.8	-	11.1	19.4	66.7	4.47	0.910
There is a right mix of electronic banking strategies for effective and efficient service delivery	2.8	8.3	8.3	36.1	44.4	4.11	1.063
It is easy for majority of the customers to access most of the banking services offered through electronic banking platforms in this bank	2.8	-	22.2	30.6	44.4	4.14	0.961
Most of the customers perceive transacting via electronic banking more advantageous than transacting via physical branch	-	-	30.6	22.2	47.2	4.17	0.878
There is adequate resources and assistance provided to customers to facilitate them in electronic banking transactions	5.6	2.8	16.7	33.3	41.7	4.03	1.108

The respondents alleged that application of electronic banking strategies has largely benefited customers in performing many transactions (M= 4.47; SD= 0.910). This means that customers reap many benefits by transacting via e-banking which makes them undertake many transactions through e-banking. They asserted that most of the customers perceive transacting via electronic banking more advantageous than transacting via physical branch (M= 4.17; SD= 0.878). Most of them also indicated that it is easy for majority of the customers to access most of the banking services offered through electronic banking platforms in their respective banks (M= 4.14; SD= 0.961), alleging that they have a right mix of electronic banking strategies for effective and efficient service delivery (M= 4.11; SD= 1.063). According to them, there is adequate resources and assistance provided to customers to facilitate them in electronic banking transactions (M= 4.03; SD= 1.108). The findings reflect a strong commitment by the banks to serve customers through electronic banking.

4.3.4 Effectiveness and Efficiency of Different Electronic Banking Strategies

The effectiveness and efficiency of EBS was based on the perception of the heads of strategy and finance in the banks. In this regard, they expressed their opinion on the extent of effectiveness and efficiency of each of the four EBS in the banks. The effectiveness and efficiency was rated on a scale of 1-5 where 1 was very ineffective and 5 was very effective. The results were as indicated in Table 4.4.

Table 4.4: Perception on effectiveness and efficiency of EBS

Strategy	1	2	3	4	5	Mean	Std. Dev
Internet banking	-	11.1	5.6	33.3	50.0	4.22	0.989
Mobile banking	-	-	13.9	16.7	69.4	4.56	0.735
Automated Teller Machines (ATMs)	2.8	2.8	8.3	22.2	63.9	4.42	0.967
Point of Sale Machines (POS)	16.7	2.8	16.7	25.0	38.9	3.67	1.454
Overall						4.22	1.036

The respondents rated the overall effectiveness and efficiency of EBS at M= 4.22; SD= 1.036. This means that effectiveness and efficiency of EBS is high but this may vary considerably between different forms of EBS. In their opinion, mobile banking (M= 4.56; SD= 0.735), ATMs (M= 4.42) and internet banking (M= 4.22) are more effective than POS machines (M= 3.67).

4.3.5 Competitive Advantage

To assess the banks' competitive advantage, the study investigated the extent that different aspects of competitive advantage had been achieved in the different banks. This was rated on a scale of 1-5 where 1 indicated that the aspect had not been achieved at all while 5 indicated that it had been achieved to a very great extent. The findings were as presented in Table 4.5.

Table 4.5: Banks' competitive advantage

Statement	1	2	3	4	5	Mean	Std. Dev
Cost effectiveness in offering various bank products and services to customers	-	2.8	19.4	47.2	30.6	4.06	0.791
Efficient and effective responsiveness to customers' needs and complaints	-	2.8	13.9	36.1	47.2	4.28	0.815
Differentiation in terms of market and products/services	-	2.9	25.7	37.1	34.3	4.03	0.857
Growth in annual sales volumes	-	-	22.2	33.3	44.4	4.22	0.797
Growth in customer base	2.8	-	19.4	30.6	47.2	4.19	0.951
Overall						4.16	0.842

Competitive advantage of the banks was found to be quite high at M= 4.16; SD= 0.842. Their greatest competitiveness is in efficient and effective responsiveness to customers' needs and complaints at M= 4.28; SD= 0.815, followed by growth in annual sales volumes (M= 4.22) and growth in customer base (M= 4.19). Last but not least was cost effectiveness in offering various bank products and services to customers (M= 4.06) and differentiation in market and products/services (M= 4.06).

4.4 Inferential Statistics

Correlation and regression analysis were done in order to determine the relationship between EBS and competitive advantage in the commercial banks.

4.4.1 Correlation Analysis

Correlation analysis was by the computation of Pearson's correlation coefficient which ranges from –1 to +1. In this regard, –1 to – 0.5 is a strong negative relationship, – 0.4 to – 0.1 is a weak negative relationship, 0 indicates no relationship, 0.1 to 0.4 is a weak positive relationship, 0.5 to +1 is a strong positive relationship (Gogtay & Thatte). The correlation analysis results were as indicated in Table 4.6.

Table 4.6: Correlation coefficients

		Internet Banking	Mobile Banking	ATMs	POS Machines	Competitive Advantage
Internet Banking	Pearson Correlation	1	.611**	.401*	.302	.678**
	Sig. (2-tailed)		.000	.015	.074	.000
	N	36	36	36	36	36
Mobile Banking	Pearson Correlation	.611**	1	.447**	.190	.524**
	Sig. (2-tailed)	.000		.006	.266	.001
	N	36	36	36	36	36
ATMs	Pearson Correlation	.401*	.447**	1	.523**	.437**
	Sig. (2-tailed)	.015	.006		.001	.008
	N	36	36	36	36	36
POS Machines	Pearson Correlation	.302	.190	.523**	1	.308
	Sig. (2-tailed)	.074	.266	.001		.067
	N	36	36	36	36	36
Competitive Advantage	Pearson Correlation	.678**	.524**	.437**	.308	1
	Sig. (2-tailed)	.000	.001	.008	.067	
	N	36	36	36	36	36

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

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

From the findings, there is a significant positive relationship between internet banking and competitive advantage since the p-value is less than 0.05 (r = 0.678, Sig. = 0.000). Similarly, mobile banking and ATMs have a significant positive relationship with competitive advantage since the p-value is less than 0.05. That is, mobile banking (r = 0.524, Sig. = 0.001); and ATMs (r = 0.437, Sig. = 0.008). However the relationship between POS and competitive advantage is not significant because the p-value is greater than 0.05 (r = 0.308, Sig. = 0.067). Internet banking, mobile banking, and ATMs

4.4.2 Regression Analysis

For the purpose of estimating the model for the relationship between EBS and competitive advantage, linear regression analysis was applied. In this regard, competitive advantage

was the dependent variable (Y) while independent variables (predictors) were internet banking (X_1), mobile banking (X_2), ATMs (X_3) and POS Machines (X_4).

Model Summary

Table 4.7 provides the model summary statistics including the R Square which shows the proportion of the dependent variable explained by the predictors.

Table 4.7: Regression model summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.709[a]	.502	.438	.63048	.502	7.816	4	31	.000

a. Predictors: (Constant), POS Machines, Mobile Banking, ATMs, Internet Banking

From the model summary statistics, R Square was 0.502. This means that the four electronic banking strategies assessed (internet banking, mobile banking, ATMs and POS Machines) influences 50.2% of the changes in competitive advantage of the banks. The rest (49.8%) of changes in the banks' competitive advantage are influenced by other factors.

Analysis of Variance

ANOVA results contain statistics that explains the significance of the regression model. This is based on the value of the F-statistics and the p-value (Sig.). The ANOVA results were as shown in Table 4.8.

Table 4.8: ANOVA

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.427	4	3.107	7.816	.000[b]
	Residual	12.323	31	.398		
	Total	24.750	35			

a. Dependent Variable: Competitive Advantage

b. Predictors: (Constant), POS Machines, Mobile Banking, ATMs, Internet Banking

The value for F is 7.816 and the p-value is 0.000. According to Dhakal (2018), when critical value of F is smaller compared to F-statistics value as derived, and or p-value is less than 0.05, the estimated model is significant at the confidence level of 95% (Significance = 0.05). The critical value for F from the F-distribution table for $\alpha = 0.05$ is $F_{(4, 31)} = 2.6896$. Therefore, because the critical value of F (2.6896) is less than the computed value of F (7.816), and the p-value (Sig. = 0.000) is less than 0.05, the computed model for the influence of EBS on competitive advantage is significant.

Regression Coefficients

The regression coefficients provide the coefficients that define the estimated model for the relationship between the predictors and the dependent variable. In this regard, Table 4.9 provides the coefficients that estimate the model for the influence of EBS on competitive advantage in commercial banks.

Table 4.9: Regression coefficients

Coefficients[a]								
		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	.225	.890		.253	.802	-1.591	2.041
	Internet Banking (X_1)	.534	.168	.527	3.185	.003	.192	.876
	Mobile Banking (X_2)	.193	.252	.129	.766	.449	-.321	.707
	ATMs (X_3)	.125	.144	.142	.868	.392	-.169	.420
	POS Machines (X_4)	.031	.092	.050	.333	.741	-.156	.218

a. Dependent Variable: Y= Competitive Advantage

In estimating the model, the equation was formulated as

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Where: Y is competitive advantage; X_1, X_2, X_3 and X_4 are internet banking, mobile banking, ATMs and POS machines respectively. β_0 = constant; β_1, β_2, and β_3 and β_4 = regression coefficients for the influence of X_1, X_2, X_3 and X_4 respectively; and ε= error term. In this regard, the model was expressed as:

$$Y = 0.225 + 0.534X_1 + 0.193X_2 + 0.125X_3 + 0.031X_4$$

X_1, X_2, X_3 and X_4 are internet banking, mobile banking, ATMs and POS machines respectively.

From the coefficients, when commercial banks enhance internet banking (β_1= 0.534, Sig.= 0.003) by one unit, their competitive advantage increases by 0.534 units which is a significant margin because the p-value is less than 0.05. However, when the banks enhance mobile banking (β_2= 0.193, Sig.= 0.449) by one unit, the competitive advantage improves by a margin of 0.193 which is a statistically insignificant margin because the p-value is greater than 0.05. Similarly, a unit increase in ATMs (β_3= 0.125, Sig.= 0.392) and POS machines (β_4= 0.031, Sig.= 0.741) triggers an improvement in competitive advantage by a margin of 0.125 and 0.031 units respectively, an insignificant marginal improvement since the p-value for each of them is also below 0.05.

4.5 Discussion of Results

The results revealed that banks have largely adopted electronic banking strategies, especially mobile banking, internet banking and ATMs. This concurs with Omari and Bataineh (2012) who asserted that the banks worldwide are changing from the traditional banking models and maximizing on the use of modern technologies in efforts to enhance their competitive advantage. It was found that customers reap many benefits by transacting via e-banking which makes them undertake many transactions through e-banking. This concurs with Venza (2015) who found that through online banking, customers had a greater access to more services.

Nonetheless, despite the high adoption of e-banking, the study found that diversity of customers' transactions via e-banking channels is still moderate in most of the banks. The many transactions customers undertake via electronic banking channels are mainly balance inquiry, inter-account funds transfers, statement generation and viewing account transactions. They rarely use electronic banking for loan application, making stop order

payment requests and standing order instructions. The findings also indicated that for the services they transact via e-banking, most of the customers consider it more advantageous than transacting via physical branch. This according to Selvanathan et al. (2016) is because e-banking is capable of facilitating fast and convenient customer access to banking services at any time in any place.

Findings revealed that effectiveness and efficiency of EBS is high but this varies considerably between different forms of EBS whereby, mobile banking, ATMs and internet banking are usually more effective than POS machines. The study further revealed that competitive advantage of the banks was quite high. For most of the banks, their greatest competitiveness is in efficient and effective responsiveness to customers' needs and complaints. This concurs with Kiboori (2017) who indicated that through electronic banking strategies like ATMs, online banking and mobile banking, banks are able to improve their interaction with customers which is critical in attaining competitiveness.

As far as the relationship between EBS and competitive advantage is concerned, findings indicated that mobile banking was positively and significantly related with competitive advantage. This is congruent to the findings by Chemtai (2016) who revealed a positive influence of mobile banking on the banks' competitive advantage. Internet banking was also found to have a positive correlation with competitive advantage. The findings agree with Kiboori (2017) who found that online banking had a significant positive correlation with competitive advantage. Use of ATMs was also significantly related with competitive advantage while use of POS machines was found to have insignificant relationship with competitive advantage.

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

Findings are summarized in this chapter and the conclusions drawn explained. Furthermore, the proposed recommendations are outlined together with the limitations of the applicability of research findings. At the end of the chapter, the areas that need further research are highlighted.

5.2 Summary of Findings

Adoption of electronic banking strategies is high (M= 4.30; SD= 0.963) whereby mobile banking is the highest adopted (M= 4.67) while POS is the least adopted (M= 3.74). Diversity in customer transactions via electronic banking channels in terms of services accessed is at moderate level in most of the banks (M= 3.57; SD= 1.164). The services that customers largely transact via electronic banking channels include: balance inquiry (M= 4.56), inter-account funds transfers (M= 4.23), statement generation (M= 4.19) and viewing account transactions (M= 4.14).

The study found that competitive advantage of the banks is quite high (M= 4.16; SD= 0.842). The greatest competitiveness is in efficient and effective responsiveness to customers' needs and complaints (M= 4.28; SD= 0.815). Last but not least is cost effectiveness in offering various bank products and services to customers (M= 4.06) and differentiation in market and products/services (M= 4.06).

Internet banking, mobile banking, and ATMs had a significant correlation with competitive advantage with r values of 0.678, 0.524 and 0.437 respectively. Use of POS machines was found to have an insignificant correlation of 0.308 with competitive advantage.

5.3 Conclusions

This research concludes that commercial banks have highly invested in diverse electronic banking strategies for customers to access various services but customers prefer transacting via e-banking for some services but they scarcely transact via e-banking for other services. Specifically, the research concludes that balance inquiry, inter-account funds transfers, statement generation, and viewing account transactions are the main services that customers prefer to transact via e-banking channels.

The study concludes that although the banks have a right mix of diverse e-banking strategies for effective delivery of diverse services but in most of them, mobile banking internet banking and ATMs constitutes larger portions of their e-banking spectrum compared to POS machines. It is concluded that the banks have put efforts to ensure the effectiveness and efficiency of most of the e-banking strategies.

Pertaining to influence of EBS on competitive advantage, the research concludes that mobile banking, internet banking, ATMs and POS machines have a positive influence on competitive advantage. However, the influence by POS machines is statistically insignificant while mobile banking, internet banking and ATMs have a significant influence on competitive advantage.

5.4 Recommendations

For the enhancement of competitive advantage in commercial banks, the research advises that the following should be done:

The banks should improve on the use POS machines to ensure that it has a significant impact on competitive advantage. This may be done by increasing the number of POS machines at different sales points and increase customer awareness to encourage them to use them. Their use should also be made as simple as possible for the users to readily use them.

The banks should also invest in educating their clients on how to access different services from their diverse e-banking channels. This will not only increase customer awareness but will also encourage them to access diverse services via e-banking channels which may also improve the banks competitiveness.

The banks should also undertake measures to improve the reliability of the various e-banking channels. In particular, they should ensure that safe and secure data protection systems are installed to safeguard the reliability and security of data to enhance customers' confidence to transact through e-banking. Furthermore, they should ensure strong internet connectivity at all time to ensure customers can transact through internet banking with minimal interruptions.

The banks should adopt more innovations on e-banking to ensure that a diverse category of customers are able to access services through e-banking. For instance, they should develop Unstructured Supplementary Service Data (USSD) codes for clients without access to internet or smart phones.

5.5 Limitations of the Study

Data used was based on opinions of the participants who filled in the questionnaires, who were just selected individuals in the management teams of the banks. The opinions of a different category of respondents in the very banks studied, may be different.

Moreover, there is no guarantee that all the data provided by the respondents was accurate. Due to the urge to portray appealing image of their management, some respondents may give falsified information which may to an extent compromise the accuracy of the findings. Therefore, applying the findings in decision making should be done with caution.

The findings are also subject to the assumptions of linear regression analysis and Pearson correlation analysis which were applied in analyzing the data. There is possibility that using different analytical techniques may yield differing results.

5.6 Suggestions for Further Studies

Since the study covered only four e-banking strategies (internet banking, mobile banking, ATMs and POS machines), more studies ought to be done to assess the influence of other e-banking strategies like smart cards, telebanking among others, on competitive advantage. This will provide more insights on the relationship between e-banking and competitive advantage.

For more comprehensive insights and robust conclusions to be made, similar studies investigating the influence of e-banking strategies on competitive advantage of the banks may be done using different analytical techniques such as factor analysis, or use different methodologies like using secondary data and the results compared and contrasted for more reliable conclusions to be made.

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APPENDICES

Appendix I: Questionnaire

All the data that you will provide here by filling the questionnaire will be kept confidential.

Part I: General Data

1). Tick as applicable to you:

a) Gender	Male [ ] Female [ ]
b) Age (in years)	30 and below [ ] 31-35 [ ] 36-45 [ ] 46-55 [ ] More than 55 [ ]
c) Education level	Post-graduate [ ] Graduate [ ] Diploma [ ] Certificate [ ] Any other [ ]
d) Duration you have served in top management within this bank (years)	Below 7 [ ] 7-9 [ ] 10-15 [ ] Over 15 [ ]

Part II: Application of Electronic Banking Strategies

2) To what extent has this bank adopted the following electronic banking strategies? "1= Not at all, 2= Little extent, 3= Moderate extent, 4= Great extent, 5= Very great extent."

Strategy	**1**	**2**	**3**	**4**	**5**
Internet banking					
Mobile banking					
Automated Teller Machines (ATMs)					
Point of Sale Machines (POS)					

3) To what extent do customers transact via electronic banking channels to access the services listed below? "1= Not at all, 2= Little extent, 3= Moderate extent, 4= Great extent, 5= Very great extent."

Service	**1**	**2**	**3**	**4**	**5**
Bills/Utility payments					
Loan application					
Credit card/ Loan payment					
Balance inquiry					
Blocking Lost/Stolen card					
Inter-account funds transfers					
Interbank funds transfers					
Standing order instructions					
Making stop order payment requests					
Bulk payments					
Statement generation					
Viewing account transactions					
Any other (Specify) _____					

4) Please rate your agreement/disagreement with the following statements as pertains to your bank. "1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly agree."

Statement	**1**	**2**	**3**	**4**	**5**
The application of electronic banking strategies has largely benefited customers in performing many transactions					
There is a right mix of electronic banking strategies for effective and efficient service delivery					
It is easy for majority of the customers to access most of the banking services offered through electronic banking platforms in this bank					
Most of the customers perceive transacting via electronic banking more advantageous than transacting via physical branch					
There is adequate resources and assistance provided to customers to facilitate them in electronic banking transactions					

5) Kindly rate the effectiveness and efficiency of the following different electronic banking strategies adopted by this bank in facilitating transactions? "1= Very ineffective, 2= Ineffective, 3= Neutral, 4= Effective, 5= Very effective."

Strategy	**1**	**2**	**3**	**4**	**5**
Internet banking					
Mobile banking					
Automated Teller Machines (ATMs)					
Point of Sale Machines (POS)					

Part III: Competitive Advantage

6) Kindly indicate the extent your bank has achieved the following. "1= Not at all, 2= Little extent, 3= Moderate extent, 4= Great extent, 5= Very great extent."

Statement	**1**	**2**	**3**	**4**	**5**
Cost effectiveness in offering various bank products and services to customers					
Efficient and effective responsiveness to customers' needs and complaints					
Differentiation in terms of market and products/services					
Growth in annual sales volumes					
Growth in customer base					

7) From your experience, what measures do you think need to be undertaken in this bank to improve the banks' competitiveness through electronic banking?

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