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DETERMINANTS OF DIGITIZATION IN RETAIL BANKING IN TRANSNZOIA COUNTY

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Abstract: **The purpose of the study was to investigate the determinants of digitization in retail banking in Trans nzoia County. The focus was on the following specific objectives; to find out the effect of E-Security on digitization of retail banks in Trans nzoia County, to determine the effect of financial liquidity on digitization of retail banks in Trans nzoia County, to establish the effect of financial electronic budgeting on digitization of retail banks in Trans Nzoia County. To determine the influence of government policies as a moderating factor on digitization of retail banks in Trans nzoia County. My independent variables were E-security, Financial liquidity, Financial budgeting while our indicators of dependent variables included; profitability, dividend payout and deposit accumulation. The target population was the employees and branch managers of the retail banks within the county. The theories that supported the study were Constraint-Induced Financial Innovation theory, Transactions cost innovative theory and Merton's market efficient theory. The study adopted descriptive design where the researcher asked a few respondents who dealt directly with the users of the system to identify and describe the issues related to digitization. To carry out this research, an interview guide targeting senior managers, bank employees and also customers of the bank was employed to collect data. Both primary and secondary data was sourced and used for analysis. The study adopted a census of the whole population to collect data. The findings were analyzed by use of content analysis. The researcher used questionnaires and interview schedules which was administered to the employees and branch managers, approximately 20 questionnaires for each bank. Assessment of validity and reliability, data analysis and presentation was done using SPSS which includes Cronbach's Alpha, Correlation and Regression. Presentation was in the form of p-charts, tables and graphs. The study revealed that most of the retail banks are majorly using mobile banking, internet banking and use of visa cards to penetrate the highly competitive retail market and enhancing its brand image. This research however helped to establish how these determinants of digitization positively affect performance of the retail banks and how best they can be used to improve service delivery to the public.**

Keywords: **E-Security, Liquidity, Financial Management and Government policies.**

I. INTRODUCTION

Background:

Digitization is the use of digital technologies to change a business model and provide new revenue and value producing opportunities; it is the process of moving to a digital business.

It can include the online banking or "Internet banking" or "Web banking". E- Banking was offering customers just about every service traditionally available through a local branch of any given retail bank. According to Onuga, (1998), he explained that internet is a wide computer networks through a mixture of private and public data and telephone lines. It is

a component of networks that are individually run by government agencies, higher learning institutions, retail (commercial) and Non-Governmental Organizations. No single organization owns or controls the internet. Though there is an internet society that coordinates and set standards for its use. Networks have no political borders or boundaries on the exchange of information. Networks are connected by gateways that effectively remove barriers so that one type of network can "talk" to a different type of network.

Internet society under their website, Licklider (2002) indicated that they first recorded description of their interactions that could be enabled through networking was a series of memos written by Licklider in 1962 discussing his 'galactic network' concept. He envisioned a globally interconnected set of computers through which everyone could quickly access data and program from any side. The concept was very much like the internet today. Licklider letter convinced his colleagues of the importance of this networking concept. It was not until 1972 that the colleagues were unable to present a public demonstration of this new network. It was during this year when the initial 'hot' application electronic mall was introduced. In October 24, 1995 a unanimous resolution was passed by the federal networking council FNC a body which was formed to define internet as the global information system. According to Licklider (2002), the internet has revolutionized the computer and communication in the world. The invention of the telegraph, telephone, radio and computer set the stage for this integration of capabilities. Internet has led to the development of E-business-commerce.(Merchad, 2003) stated that, Internet banking falls under business and refers to situation where the banks offer the customers the ability to transact business with the bank over the internet. With the popularity of personal computers, easy access to the internet and the World Wide Web (www). Banks are increasingly using the products and services to their customers. This has replaced the traditional ways of using taxes, mailed letters and telephone conversations. Past research indicate that some countries have not experienced this and still rely on the traditional ways of banking (Imitiyaz 2003).Marlhota and Sigh (2004) in their research work on adoption of internet banking which was an empirical investigation of the Indian banking sector, further explained that the internet banking involves consumers using the internet to access their bank accounts and to undertake the advanced levels. The advanced level involves provision of facilities such as accessing accounts, funds, transfer and buying financial or service outline. This is called; "transactional" online.

Internet banking is a recent development in the world. The first world in E-banking service was introduced in 1990 by wells far go bank. However, it was not until 1997, that a similar service was launched in the UK by the nationwide building society. Since then, many banks have started their electronic banking services with access available via personal computers mobile phones or an interactive television. Barclays bank report of Unga group (1997) indicated that it was not until 1995 that it introduced internet banking in Kenya. While enormously successful, the internet has become an extension of business and commerce industry, often as a traditional sale or distributor channel, but not necessarily as replacement for what came before. This was true for banks as it was meant for book stores. While banks have long been fascinated with the idea of online banking, the notion took longer to catch fire with customers than books buying or auctioning (Licklider, 2002).

There has been tremendous growth in the Kenyan banking industry. Changes in the Kenyan economy and Commercial Banks have not been spared from the impact of these changes. The banking industry in Kenya comprises commercial banks, microfinance institutions, foreign exchange bureaus and credit reference bureaus. There are 43 commercial banks in Kenya, where ten of them are listed on the Nairobi Stock Exchange (CBK, 2013). The banking sector is governed by the Companies Act, the Banking Act, the Central Bank of Kenya Act and prudential guidelines issued by the Central Bank of Kenya. The banks have come together under the Kenya Bankers Association (KBA), which serves as a lobby for the banking sector's interests. The KBA serves a forum to address issues affecting member banks. Over the last few years, the Banking sector in Kenya has continued to grow in assets, deposits, profitability and products offering. The growth has been mainly underpinned by an industry wide branch network expansion strategy both in Kenya and in the East African community region. Secondly (Kapila.R & Kapila.U, 2000) say that digitization is the automation of a large number of services and a move towards emphasis on the complex customer needs rather than traditional banking products. Players in this sector have experienced increased competition over the last few years resulting from increased innovations among the players and new entrants into the market as shown by (Martz. H, 2003).

Banks in Kenya offer corporate and retail banking services with larger banks offering other services including investment banking. With the predictions that in the next 10 years, the future of the banks will be the retail market, there has been stiff competition that have seen even the 'big' banks fighting to get a share of the retail market. Traditionally, some banks had developed strategies to get rid of the retail customers for example Barclays bank Kenya Ltd, while others had shunned from offering any product or service for the retail customers. Others capitalized on that banking gap, recording a high degree of success, making other players in the market to re-think about their strategies (Porter E, 2008), for example Equity Bank Ltd and Family bank Ltd. Financial relations, all over the world, have been deeply transformed in the last two decades. New products, new markets and new regulatory systems have radically altered the environment in which financial sectors operate, opening new profit opportunities but also creating new (and sometimes very great) risks.

Neither customers nor digital upstarts are likely to wait for retail banks to catch up. Recent analysis shows that over the next five years, more than two-thirds of banking customers in Europe are likely to be "self-directed" and highly adapted to the online world. In fact, these same consumers already take great advantage of digital technologies in other industries—booking flights and holidays, buying books and music, and increasingly shopping for groceries and other goods via digital channels. Once a credible digital-banking proposition exists, customer adoption will be breathtakingly fast and digital laggards will be left exposed (Chugunov A.V, 2015).We estimate that digital transformation will put upward of 30 percent of the revenues of a typical European bank in play, particularly in high-turnover products such as personal loans and payments. We also estimate that banks can remove 20 to 25 percent of their cost base by leveraging this digital shift to transform how they process and service. Put together, the economics of a digital bank will give it a vast competitive edge over a traditional incumbent. It's fair to say that getting digital banking right is a do-or-die challenge.

So why are European banks not aggressively moving in this direction? One of the reasons for the slower transformation in banking is that bank executives have tended to view digital transformation too narrowly, often as stand-alone front-end features such as mobile apps or online product-comparison charts (Molyneux. P, Altunbas. Y & Gardener E.P.M 2006). Commonly lost in the mix are the accompanying changes to frontline tools, internal processes, data assets, and staff capabilities needed to stitch everything together into a coherent front-to-back proposition. Although the journey may begin "digitally" on an online form or payment calculator, it does not remain so for long, as anyone who has taken on a mortgage can attest. Instead, the onerous documentation requirements and significant manual intervention that characterize the typical bank's mortgage process soon emerge. This can seem jarring to customers accustomed to more seamless interactions with nonbanking services.

The statement of the problem:

Despite the rapid growth of digitalization in the banking industry, its determinants in retail banks is not yet clear. Sullivan (2000) compared the financial performance and risk of the sample of banks that are located in 10 federal research reserve districts states and observed that the profitability and risk of the non-internet banks and internet banks in the sample are similar. De young, Lang and Nolle (2007) compared 424 internet banks and 5175 non internet banks and concluded that internet banks are more profitable compared to non-internet banks in the U.S. Acharya, Kagan and Linam (2008) reported that empirical evidence indicates that the increasing use of the internet has an additional channel of banking service has significantly improved the financial performance of community banks in U.S In contrast, Sathye (2005) compared the performance of major credit union in Australia and a significantly found that transactional internet bank does not have significant impact on the performance of unions.

Hence there is mixed evidence about the determinants of digitization on the retail banks based on performance. It's therefore important for the researchers to understand the determinants of digitization in banks .To achieve this, the researcher analyzed the performance of retail banks in Kitale Town .A study carried out by Wambui (2012) indicated that most Commercial Banks in Kenya face challenges in adopting new technologies as a strategic response to customer service delivery in the changing business environment.

Objectives:

General Objectives:

The overall objective of this study is to analyze the determinants of retail banking digitization in Trans nzoia County

Specific objectives:

(i) To evaluate the effect of electronic security on digitization of retail banks in Trans nzoia County

(ii) To determine the effect of liquidity on digitization of retail banks in Trans nzoia County

(iii) To establish the effect of financial electronic budgeting on digitization of retail banks in Trans nzoia County.

(iv) To determine the influence of government policies as a control variable on digitization of retail banks in Trans nzoia County.

Research Questions:

The researcher formulated the following questions that will help to guide the direction of this research;

1. What is the effect of e-security on digitization of retail banks in Trans nzoia County?
2. Does liquidity influence the digitization of retail banks in Trans nzoia County?
3. What is the effect of electronic budgeting on digitization of retail banks in Trans nzoia County?
4. Do government policies affect the digitization of retail banks in Trans nzoia County?

Research Hypotheses:

1. $H0_1$: E-Security does not influence the digitization of retail banks in Trans nzoia County.
2. $H0_{2:}$ Liquidity does not influence the digitization of retail banks in Trans nzoia County.
3. $H0_3$: There is no relationship between electronic budgeting and digitization of retail banks in Trans nzoia County.
4. $H0_4$: Government policies do not affect digitization of retail banks in Trans nzoia County

Justification:

The researcher found it necessary to examine the determinants of digitization on retail banks because a casual survey of literature indicates that most transactions today take place online. It is in the domain of the public that most of the retail banks have adopted technology in all their transactions.

Delgado, Hernando, and Nieto (2007) observed that primarily internet banking in Europe affect performance negatively. Ciciretti, Hassan, and Zazzara (2009) found a significant positive relationship between offence of internet banking product and Italian banks performance and a significant negative relationship between adoption of internet activities and banks performance.

Porter,(2000) viewed competitive strategy in terms of three generic strategies which include cost leadership, differentiation and focus strategy. The strategic responses may include joint venture, new product development, and adoption of new technology, entry into foreign markets, price adjustments, product differentiation and a variety of actions that can result in competitive advantage as indicated by Kombo, (2006). Strategies enable organizations to increase profits, increase volume of sales, and develop new products that meet consumer needs compared to competitor products and services, ability of the management to predict the future changes, and ability of the organization to accept change and work towards common organizational goal for competitive edge of the organizations in the global market (Gomez, 2001). A study carried out by Anyim & Munyoki, (2010), clearly indicated that banks experience various challenges when trying to 8 adopt strategies to manage service quality.. Another study carried out by Kiptugen, (2003) indicated that most of the banks in Kenya find it difficult to respond strategically due to unpredictable environmental changes and inadequate organizational resources to make strategic responses a reality.

Scope of the study:

The application of Digitization and its impact on financial management is somehow beyond an organization's control. The study intended to consider all the internet bank users to the selected retail banks represented in Kitale town. However, due to limitation in resources and time, not all users of the internet banking were considered. Information and technology area is quite scarce in Kenya. The Central Bank of Kenya which controls all the commercial banks in Kenya does not require any periodic reports on technological developments of commercial banks, therefore, we relied on the information from the bank managers and the customers in the banking sector.

2. LITERATURE REVIEW

Introduction:

This section presents the theoretical framework, conceptual framework, review of variables, critique of the literature and the gap to be filled. The review of appropriate journals, reports, monographs, books e.t.c should shed light on what is already known about the problem and should indicate logically why the proposed study would result in an extension of this prior knowledge.

Theoretical framework:

Merton's Market Efficiency Theory:

Merton's market efficiency theory is based on the notion that financial innovations are motivated by forces designed to increase market efficiency and improve social welfare. Merton (1990) argued that the market is not perfect hence financial institutions must innovate to improve market efficiency. Merton (1990) gives three motivations for introducing innovations namely, the creation of new financial strictures that allow risk sharing, risk pooling and hedging as well as new structures for transferring resources, to improve economic efficiency and liquidity and to reduce agency costs. There are five critical attributes that greatly influence the rate of adoption. These include relative advantage, compatibility, complexity, trainability and observability. The rate of adoption of new innovations will depend on how an organization perceives its relative advantage, compatibility, tradability, observability and complexity. If an organization in Kenya observes the benefits of mobile and internet banking they will adopt these innovations given other factors such as the availability of the required tools. Adoption of such was fastened in organizations that had internet access and information technology departments than in organizations without (Rogers & Clarke, 2005).

Transactions Cost Innovative Theory:

The transaction cost innovation theory's main pioneers are Hicks & Niehans (1983). They thought that the dominant factor of financial innovation is the reduction of transaction cost, and in fact, financial innovation is the response of the advance in technology which caused the transaction cost to reduce. The reduction of transaction cost can stimulate financial innovation and improvement in financial services. This theory studied the financial innovation from the perspective of microscopic economic structure change. It thought that the motive of financial innovation is to reduce the transaction cost. And the theory explained from another perspective that the radical motive of financial innovation is the financial institutes‟ purpose of earning benefits. This theory discussed the motive and the process of financial innovation from different sides. Hence this theory will be used to establish the financial innovation and economic performance from the transaction point of view to see whether its transaction cost derived from financial innovation that drive economic activity linking to the determinants of digitization of retail banking in Kenya.

There are five critical attributes that greatly influence the rate of adoption. These include relative advantage, compatibility, complexity, trainability and observability. The rate of adoption of new innovations will depend on how an organization perceives its relative advantage, compatibility, tradability, observability and complexity. If an organization in Kenya observes the benefits of Islamic banking, then they will adopt these innovations given other factors such as the availability of the required tools, customer awareness and other advancements.

Constraint-Induced Financial Innovation Theory:

This theory pointed out that the purpose of profit maximization of financial institution is the key reason of financial innovation. There are some restrictions however in the process of pursuing profit maximization. These may include but not limited to policy and internal organizational management. Constraint induced innovation theory discussed the financial innovation from microeconomics, so it is originated and representative. However, it emphasized "innovation in adversity" excessively so it can't express the phenomenon of financial innovation increasing in the trend of liberal finance commendably. Financial constraints significantly reduce the probability that a firm undertakes innovative projects. However, according to Silber (2004) financial innovation occurs to remove or lessen the constraints imposed on firms. Firms facing imperfections have the greatest incentive to innovate and boost profits because of the high shadow costs of such constraints.

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Conceptual Framework:

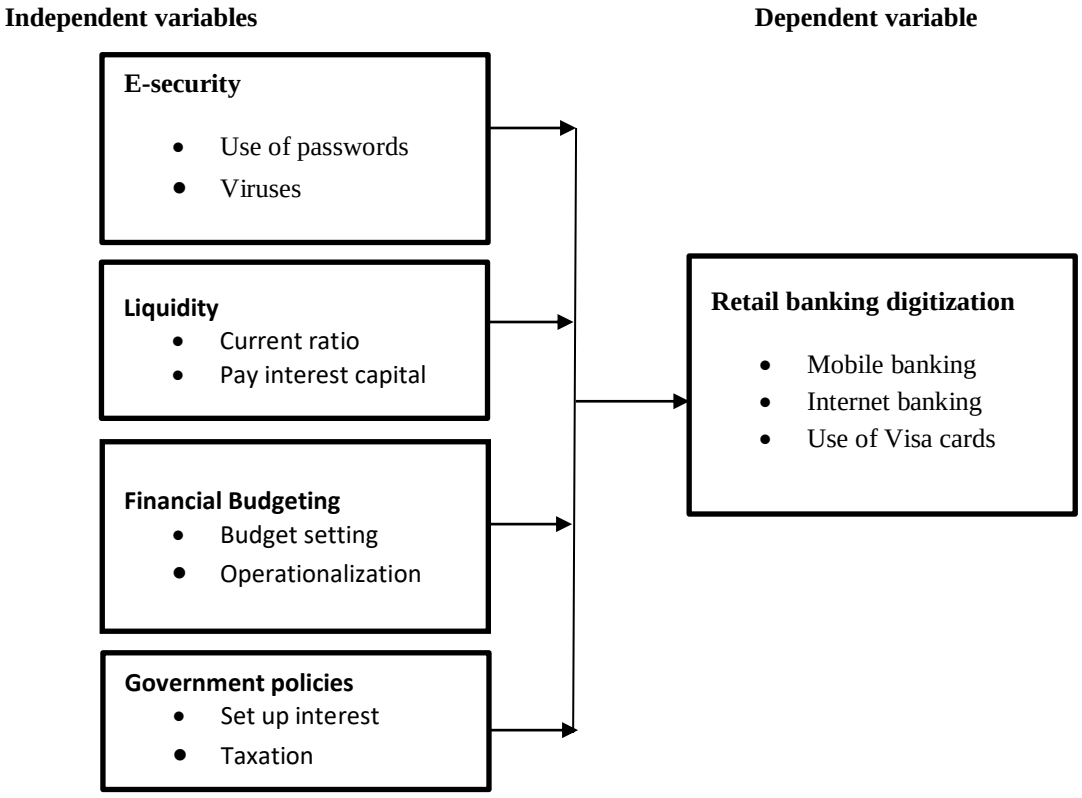

Fig 2.1: Conceptual frameworks

Review of variables:

E-Security:

Sullivan, (2000) defines digitization as the combination of the Internet, broadband, and mobility is a requirement for every bank looking to thrive in the new world. Carefully planned for and managed, it can transform all four aspects of the customer solution support, community, adaptability, and convenience and empower banks to provide their customers with the best possible personal, social, and financial experience. The result will be a new kind of bank, one with which customers are fully engaged; this level of engagement will develop into a kind of partnership between banks and their customers, enabling them to co-create value. No bank has committed fully to digitization. Many have incorporated some elements of it into their business models for instance, some banks are experimenting with what they call virtual branches but their efforts to create a digitized strategy are still immature and do not yet present a coherent digitized face to their customers. Yet there is no reason that banks can't begin now to launch a coherent digitized retail banking strategy. On one level, building all the capabilities necessary to become fully digitized will not take a bank very far out of its comfort zone. Banks typically view their interactions with customers along the overall customer journey, from generating leads to completing a sale to identifying future needs.

Digitization has the power to boost the capabilities needed at every step of this journey. It can improve marketing reach; accurately identify customer needs; improve conversion rates through tools such as virtual advisors, co-browsing, and social networking; and promote customer lock-in and loyalty through personalization and customization. Digitalization is changing everything. The Internet, high-speed broadband, and mobile connectivity let banks provide their customers with a much more engaging, highly personalized financial experience, and platforms such as social networking are adding a renewed sense of community as well. The result will be a new era in banking in which banks and their customers will work together to co-create value through innovative new products and services and more efficient operations.

Digitization is by no means a one-sided coin; indeed, banks and their customers will evolve into a mutually beneficial partnership that will create value. According to José Manuel, (2017), digitization offers banks a powerful way to boost online traffic by increasing their marketing reach and the frequency of visits to all of their communications platforms.

And banks will be able to monetize that additional traffic more effectively through increased share of wallet and higher conversion rates. The increased traffic combined with the ability to better monetize that traffic will lead to improved top-line growth. He also brings it out clearly that efficiency is an important aspect of digitization as it is enhanced by the process. Lower-cost online channels will take over the roles of expensive offline channels. As conversion rates increase, the cost of converting each customer will go down, increasing the efficiency of marketing costs. Thanks to reduced churn, customers will provide banks with a higher lifetime value. Research &Development costs will decline as greater insights gleaned from customer communities and third-party tools drive product and service innovation. And overall operating expenses will decline through lower costs for customer care and overall personnel expenses (Sullivan, 2000).

With the emerging wave of information driven economy, the retail banking industry in Kenya has inevitably found itself unable to resist technological indulgence. This has led to a boom in development of internet banking laying down a strong base for low cost banking, and growth of mobile phone use in rural Kenya. Standard Chartered in 2009 launched its internet banking in seven markets in Africa. In the Kenyan market it offers a number of services on a unique, user-friendly platform called Unstructured Supplementary Services Data (USSD) and is only available on GSM carrier networks which enable customers to access banking in real time, anywhere in the world, through their mobile phones. The platform is a convenient menu-driven application that is not dependent on specific customer handsets and does not need to be downloaded. Barclays bank's E-banking platform is known as 'hello money'. It allows customers to carry their bank in their mobile and access banking services anytime/anywhere on the move. Unlike other players in the sector this is all for free. According to the CBK report, 2016, Co-operative bank pioneered internet banking way back in 2004 by enabling customers to access their accounts and transact using their mobile phones. It offers services such as balance enquiries, mini-statements, SMS alerts on credit and debit transactions to an account, pay utility bills and funds transfer. Equity bank on the other hand has its own E-banking platform known as Eazzy 24/7 offering services similar to those of cooperative bank. According to World Bank report (2015) by e-finance insider eludes that; Internet banking institution increases customers churn and increases across selling opportunities.

Some of the attacks identified are; Trojan horse attacks. It's the most classic type of attack, typically it targets software solutions with keys installed to a hard disk only or downloaded from a server. A Trojan horse installs itself in PC memory and reports to the attacker what is being entered and processed or even does malicious damage from within. The kind of functionality seen here is similar to that of spy ware. There are now dedicated viruses such as the banker-aj-Trojan, which records login details and passwords when customers visit legitimate on-line banking websites. Phishing attacks. This begin with an e-mail appearing to come from the bank, it leads the recipient to a convincing webpage, at which he is tricked into entering his username and password. Of course in reality, the webpage has been set by the attacker and does not belong to the bank at all. Once obtained, the details are used by the attacker to login the users account and drain it of funds. Man-in-the middle attacks.

Liquidity:

Liquidity was extremely essential for a firm to be able to meet its obligations as at when due. Liquidity ratios measure the ability of a firm to meet its current obligations. A firm should ensure that it does not suffer from lack of liquidity, and also it does not have excess liquidity. The failure of a company to meet its obligations due to lack of sufficient liquidity will result in poor credit worthiness, loss of creditors confidence or even legal tangles resulting in closure of the company. Additionally, a very high degree of liquidity is also bad because idle funds will unnecessarily be tied up in current assets earning nothing. Therefore, it becomes necessary to strike a proper balance between high liquidity and lack of liquidity (Pandey, 2010).

In addition, liquidity is the ability of a company to meet its short term obligation. Global Association of Risk Professionals (2013) assert that liquidity is a bank's ability to fund increase in assets and meet both expected and unexpected cash and collateral obligations at a reasonable cost and without incurring unacceptable losses. Liquidity in banking measures the availability of cash and the rate of which current assets are converted into cash to meet ordinary and extra ordinary request. Similarly, Sullivan, (2000) describe bank liquidity as the ability of the bank to maintain sufficient funds to pay its maturing obligations. He maintains that liquidity is a measure of the relative amount of assets in cash or which can be quickly converted into cash without any loss in value available to meet short term liabilities. Additionally, Liquidity is the ability to meet all obligations without endangering its financial conditions. This digital revolution has also arrived in the financial sector. Currently there is no doubt that our sector is at a major crossroads. The negative impact of

the economic environment on banking ,expectations of a prolonged period of low interest rates and the stagnation in lending lead inevitably to the quest for transformation processes enabling costs to be reduced and revenues boosted. Things become complicated if we take into account two additional factors: the reputational problems still weighing on banks and the assimilation of the aftermath of the regulatory tsunami. Accepting that all the above requires profound changes in the sector; the presence of this radical disruptive force, the digital revolution, has changed everything. According to José Manuel, (2017), the disruption characterizing the transition in banking is reflected in irreversible changes in both the supply of and demand for financial services: On the demand side, we are already seeing radical changes in the patterns of consumption and savings behavior of a whole generation. The two new generations of digital natives, the millennials and the centennials, have started joining the labour force, and in the coming years they will become increasingly important customers not just of banking but of a whole range of sectors. In a context of increasing competition such as the current one, it is crucial to understand the services that are being and will be demanded by these younger generations and by older "non-native" generations which are rapidly digitalizing.

José Manuel, (2017), in his seminar paper to BBVA states that as for the disruptions seen in supply, the sector is facing greater competition and technological changes that will decisively affect the quantity, quality and price of financial services. As regards competition, over the past few years we have seen an increase in the number of new players coming from the digital world, the "*fintechs*". Their objective is to concentrate on specific segments of the value chain (foreign exchange, payments, loans, trade, asset management or insurance, for example), unbundling or disaggregating the services previously originated and sold by the banking sector..

As we have seen, there are a number of exponential technologies interacting with other digital innovations, such as the large-scale use of big data, artificial intelligence, block chain and cloud computing. All this will open the way to different ways of participating in the digital ecosystem, such as by acquiring or taking equity stakes in "fintechs", developing internal capabilities or open innovation. In this context of disruptive change, two forces will be fundamental for determining the speed of change and the scenario towards which the sector will move. The first, which is of an internal nature, concerns banks' vision of the future and their technological, financial and organizational capacity for self-transformation. The second one is the role of the regulators and supervisors as drivers of or brakes on the changes needed during the transition.

Financial Budgeting:

Kenya is increasingly becoming the silicon valley of financial innovation in Africa and the rest of the world (Mwangi, 2010). This has seen the launch of sum of the most innovative products in the financial market. Kenyan financial sector comprises of Banking, Insurance, Capital markets, Pension Schemes and Quasi-banking institutions such as: Savings and Credit Cooperative Societies (SACCOs); Microfinance Institutions (MFIs); Building Societies, Kenya Post Office Savings Bank (KPOSB); Development Finance Institutions; (DFIs) and informal financial services such as Rotating Savings and 8 Credit Associations (ROSCAs). Financial intermediation in Kenya has continued to recorded high growth rates due to increased lending as reflected by the rise in domestic credit backed by significant financial innovation. Some of these products include mobile technology services such as M-pesa which is a mobile money transfer services a product of safaricom ltd, M-kesho which is a mobile banking system a product of Equity bank Kenya, mobile insurance services by Britam insurance, online banking, mobile banking, real tine gross transfer's (RTGS), banc assurance, Islamic banking, increased use of ATM and coming of new institution such as branch banking, credit bureau and rating agency, unclaimed asset authority, rejuvenation of the capital market and Nairobi capital exchange and branding of banks among other changes such as changes in regulation and taxation within the financial sector.

As the retail banking industry emerges from the recent crisis that overwhelmed much of the global financial services sector, it continues to face a number of important growth challenges. According to Saleh M. Nsouli and Andrea Schaechter, (2002), high unemployment, an ongoing low-interest-rate environment (despite concerns about potential inflation), heightened consumer protection laws focused on reducing fees and increasing transparency, and increased capital requirements as well as new regulatory oversight costs together, these suggest continued stagnant top-line growth and declining profitability. Consumer trends have made the situation even trickier: Globalization, cross-selling, and multitasking have increased the complexity of people's lives. The intensification of work, multiple roles at home and in the workplace, and rapid changes in how people live have boosted the pressure of stress, burnout, and depression. And as consumers watched their financial assets evaporate rapidly in the wake of the recent crisis, thanks in part to the actions of

narcissistic bankers driven by greed and egomania that loss of security has led to a much stronger sense of uncertainty. As a result, consumers have lost faith in any number of institutions, not least their banks. Gone are the days when people viewed banks as the most solid structures in town, both physically and financially, a perception that has been replaced by a deep feeling of distrust in how banks and bankers do business indeed, in whether they are on the side of their customers at all(Robinson & Last, 2009).This digital revolution has also arrived in the financial sector. Currently there is no doubt that our sector is at a major crossroads. The negative impact of the economic environment on banking ,expectations of a prolonged period of low interest rates and the stagnation in lending lead inevitably to the quest for transformation processes enabling costs to be reduced and revenues boosted as shown by Simons, (2000). Things become complicated if we take into account two additional factors: the reputational problems still weighing on banks and the assimilation of the aftermath of the regulatory tsunami. Accepting that all the above requires profound changes in the sector; the presence of this radical disruptive force, the digital revolution, has changed everything.

In this context of disruptive change, two forces will be fundamental for determining the speed ofchange and the scenario towards which the sector will move. The first, which is of an internal nature, concerns banks' vision of the future and their technological, financial and organizational capacity for self-transformation. The second one is the role of the regulators and supervisors as drivers of or brakes on the changes needed during the transition. Banking industry is of no exception, there is the need to create innovative services and products to respond to the varying consumer demographics and their lifestyles as shown by José Manuel, (2017). The intense competition among Kenyan banks calls for regular overhaul of the banking activities or services in order to guarantee customers with quick but efficient service delivery. Moreover, due to the high level of competition that exists in the banking sector it is up to the retail banks to accept the need and benefits of regularly replacing old products with new or modified ones in order to enhance their performance. An enhanced service through computerized accounting system can serve as a very strong marketing or advertising tool for banks by attracting customers from outside and within the sphere of the existing markets. All the retail banks have realized that computerization of the accounting system could lead to reduction in cost such as salaries, higher returns by participating in international banking services and an improved security system which reduces fraud. Digital transformation has many ways to make a positive impact among the retail banks. Pozzolo & Bonis, (2012) states that technological diffusion provides more possibilities to access financial services by, for example, using people's mobile devices; this fits perfectly with the high level penetration of cell phones in emerging economies like the Kenyan market. In this case, digital transformation has the potential to help to overcome structural barriers to financial inclusion, such as geographical distance bureaucratic processes and documentary requirements, and to provide time-efficient processes. Sathye, (2005) also points out that digital transformation has also brought a low-cost framework for financial institutions, facilitating the evaluation process for opening a new client account or processing a loan, reducing an important barrier to traditional banks' offering financial services to low-income customers , as well as attracting non-financial institutions that provide some financial services, generating more competition and more value for the economy.

Humphrey MukiSabi (2014), outlines convenience, control and cost savings as the three primary motivators that drive consumer adoption of online banking. In 2007, 30 percent of online bankers reported they joined to save time, according to Javelin Strategy & Research's 2007 Online Banking and Bill Payment Report. These online bankers want to conveniently access their financial information and conduct activity anytime, anywhere particularly younger customers who have grown up expecting immediate access to information and the ability to conduct daily tasks while "on the go." Fifteen percent of online bankers joined for better control, which comprises improved security, as well as the ability to manage account activity and household. Budgeting, and to better organize financial records. Cost savings, the third key usage driver, results from avoiding trips to the bank and from replacing paper check remittance with online bill payment. For financial institutions, Internet banking offers a myriad of direct benefits. Online bankers conduct transactions faster and more easily with 24/7 self-service applications. This not only makes the institution more valuable to customers but also reduces operational costs. For instance, a face-to-face transaction with a teller costs financial institutions considerably more for labor and paper than an online transaction. Internet banking further reduces costs by decreasing lobby traffic, customer phone calls and the need to print and mail paper statements.

With a fully integrated Internet Banking Solution, financial institutions can optimize internal systems and processes, provide a comprehensive view of financial activity for users and easily integrate additional capabilities. By reinforcing the online offerings with quality service and support, financial institutions can further improve customer relationships and benefit from an increase in overall profitability. Sometimes referred to as "green banking," Internet banking promotes

paperless statements and billing. In its 2007 Online Banking and Bill Payment Report, Javelin states that the typical household sent or received an average of 26 bills, statements and checks in 2006, based on U.S. Postal Service data. This totalled close to700, 000 tons of paper. By shifting to paperless banking and bill pay, customers keep paper out of landfills and also cut energy and wood consumption, net greenhouse gas emissions and toxic air pollutants. While nearly every online banking solution offers some functionality to enhance convenience, control and cost savings, there are a number of key features customers seek that many older systems do not offer. Filling those gaps is critical to financial institutions looking to remain competitive as shown by Panday in his competitive strategies in the market.

Robinson and Last (2009), stated that, the purpose of performance budgeting is threefold: firstly, to align public sector organizations' resources, activities and outputs with the government's objectives in order to achieve desired outcomes; secondly, to encourage organizations to improve the efficiency with which they generate outputs and the effectiveness of outputs in contributing to outcomes; and thirdly, to facilitate the maintenance of aggregate fiscal discipline. There is a long history of attempts to link budgets and performance, starting with program budgeting in the 1950s, followed by Planning, Programming, and Budgeting System (PPBS) in the 1960s and Zero-Base Budgeting in the 1970s. Performance budgeting, which emerged as part of the New Public Management Reforms of the 1980s, has proved more durable than its predecessors. An OECD wide survey published in 2007 indicated that all OECD countries had introduced information into the budget process in some form or another and that forty percent of these countries had been using performance information in budgeting for over a decade.

Government policies:

Policymakers today face a different environment for the banking sector that entails technological advancements and other innovations. Technologies are far more pervasive than they were previously: More people today have access to a mobile phone than to electricity, powering exponential growth in global data generation. With Information Technology access approaching ubiquity, policymakers' next challenge is to ensure that individuals, businesses, and governments are making the best possible use of networks and applications. Countries that have achieved advanced levels of digitization, the mass adoption of connected digital technologies and applications by consumers, enterprises, and governments have realized significant benefits in their economies, their societies, and the functioning of their public sectors.Digitization offers incremental economic growth: countries at the most advanced stage of digitization derive 20 percent more in economic benefits than those at the initial stage as indicated by Sullivan, (2000). Digitization has a proven impact on reducing unemployment, improving quality of life, and boosting citizens' access to public services. Finally, digitization allows governments to operate with greater transparency and efficiency. Policy makers have an important role to play in ensuring that their countries are progressing toward advanced stages of digitization according to the financial reports on the CBK report on retail bank, (2016). They need to acknowledge where they currently stand and recognize the benefits of digitization. Finally, they need to shift focus away from access and set into motion programs and plans that focus on the widespread adoption and usage of technology. That includes elevating digitization on the national agenda, including the systematic planning and tracking of their efforts; evolving sector governance structure; adopting an ecosystem perspective; enabling competition; and stimulating demand. Policy makers need to acknowledge where their countries currently stand and set into motion programs and plans that focus on the widespread adoption and usage of digitization. That includes elevating digitization on the national agenda, evolving sector governance, adopting an ecosystem perspective, enabling sustainable competition, and stimulating demand.

Ezeoha, (2005), stated that, at the national level, the Nigerian government and the relevant regulatory agencies have strived to match the rapidly changing electronic banking environment with necessary regulations and institutional frameworks. Earlier efforts made to this effect included the enactment of the Failed Banks (Recovery of Debts) and Malpractices in Banks Decree No.18 of 1994, and the Money Laundering Decree of 1995. However, as noted above, poor enforcement procedure rendered these instruments very inactive in checking the menace of financial crimes. By the late 1990s, following record growth in Internet and computer usage in the country, almost all the regulations guiding the banking industry, including the *Banks and Other Institutions Act* of 1991, were lacking adequate provisions to accommodate the emerging trend. Not even a mention of electronic banking or any manner of its application was mentioned in any of those prevailing regulatory documents. The situation created a lot of gaps between the levels of CBN regulatory tools and the advances in information technology. This at the same time made the banks vulnerable to all kinds of risks, including transaction, strategic, reputation and foreign exchange risks. This deficiency notwithstanding, it was not until 2003 when the maiden guidelines on electronic banking came into force.

Kadir, M. (2005), identified, the Malaysia government is proactive in supporting and promoting ICT usage just like its Singapore counterpart. Internet usage has been found to be relatively mature in a consumer satisfactory survey conducted by the Malaysia Communications and Multimedia Commission (MCMC, 2004a). Four out of ten Internet users access e-government services for registration and information purposes. Electronic banking acceptance has gained special attention in academic studies during the past five years as, for instance, banking journals have devoted special issues on the topic as reported by Mahzan, & Veerankutty, (2011). There are two fundamental reasons underlying electronic; banking development and diffusion. First, banks get notable cost savings by offering electronic banking services. It has been proved that electronic banking channel is the cheapest delivery channel for banking products once established (Sathye, 2005).

Second, banks have reduced their branch networks and downsized the number of service staff, which has paved the way to self-service channels as quite many customers felt that branch banking took too much time and effort (Karjaluoto, 2003). Therefore, time and cost savings and freedom from place have been found the main reasons. Underlying electronic banking acceptance, several studies indicate that online bankers are the most profitable and wealthiest segment to banks (Robinson, 2009). Electronic banking thus offers many benefits to banks as well as to customers. However, in global terms the majority of private bankers are still not using electronic banking channel. There exist multiple reasons for this. Foremost, customers need to have an access to the internet in order to utilize the service. Furthermore, new online users need first to learn how to use the service. Secondly, nonusers often complain that electronic banking has no social dimension, i.e. you are not served in the way you are in a face-to-face situation at branch. Finally, customers have been afraid of security issues. With the emerging wave of information driven economy, the banking industry in Kenya has inevitably found itself unable to resist technological indulgence. This has led to a boom in development of internet banking laying down a strong base for low cost banking, and growth of mobile phone use in rural Kenya. According to CBK report, Standard Chartered in 2009 launched its internet banking in seven markets in Africa. In the Kenyan market it offers a number of services on a unique, user-friendly platform called Unstructured Supplementary Services Data (USSD) and is only available on GSM carrier networks which enable customers to access banking in real time, anywhere in the world, through their mobile phones. The platform is a convenient menu-driven application that is not dependent on specific customer handsets and does not need to be downloaded. Barclays bank's E-banking platform is known as 'hello money'. It allows customers to carry their bank in their mobile and access banking services anytime/anywhere on the move. Unlike other players in the sector this is all for free.

Co-operative bank pioneered internet banking way back in 2004 by enabling customers to access their accounts and transact using their mobile phones. It offers services such as balance enquiries, mini-statements, SMS alerts on credit and debit transactions to an account, pay utility bills and funds transfer as shown in the European Scientific Journal of May,(2013). Equity bank on the other hand has its own E-banking platform known as Eazzy 24/7 offering services similar to those of co-operative bank.

According to internet banking, report (2003) by e-finance insider eludes that; Internet banking institution increases customers churn and increases across selling opportunities. According to Kenya Commercial Banks of Africa limited list the advantages as; Saves time, Provides accessibility and interaction with one's fund at the touch of a button, Makes banking convenient, payment of accounts, bills and transfer funds without queuing or writing cheque, Safer way to handle cheque, one does not need to carry large amounts of cash around and Reduce systems of insecurity(Mahzan, & Veerankutty, 2011).

Critiques of existing literature:

Sathye, (2005) compared the performance of major credit union in Australia and a significantly found that transactional internet bank does not have significant impact on the performance of unions. Similarly, Delgado, Hernando, and Nieto (2007) observed that primarily internet banking in Europe affect performance negatively. Ciciretti, Hassan, and Zazzara (2009) found a significant positive relationship between offence of internet banking product and Italian banks performance and a significant negative relationship between adoption of internet activities and banks performance.Porter focused on two categorical sources involved in creating competitive strategy, superior skills and superior resources. However, Barnley (2001) stated that not all firms' resources hold the potential of sustainable competitive advantage, instead, they must possess four attributes: rareness, value, inability to be imitated and inability to be substituted. Ndubi (2013) studied competitive strategies adopted by Bank of India and also looked at the strategic responses of responded to

these environmental changes through a market strategy, human resource strategy, information technology strategy and operational strategy. The key observation in all these studies is that different firms were found to be using different strategies to gain competitive advantage.

Many of the biggest encounters now confronting banking and financial services are intimately connected with technology. Banks are facing critical decisions about strategy, cost reduction and implementing regulatory change—all of which have huge technology implications. BBVA'sChief Executive Officer (CEO), Francisco González, told a recent conference that BBVA will be a software company in the future. González is a former software engineer himself. But in most bank boardrooms, technology expertise is still in woefully short supply.

According Chris Skinner, (2014) despite the centrality of technology, many existing boards of financial services companies are singularly ill-equipped to assess and make critical decisions about strategy, investment and allocation of IT resources.But this digital revolution also raises new challenges to the stability and the integrity of the financial system and the protection of consumers. In particular, there are various areas to which regulators and supervisors need to pay special attention: The application of new technologies brings new risks related to the proper functioning of these technologies and their vulnerability to external attacks (cyber-security). In addition, other risks are being affected by the various applications:

New technologies for storing and processing data- (Such as cloud computing) and data analysis techniques pose new challenges for data protection, an increasingly significant area in consumer protection.

The advance of automation and artificial intelligence also raise certain ethical, political and legal dilemmas which have yet to be resolved. The large-scale replacement of the workforce that performs routine work will pose crucial challenges relating to social well-being, inequality and the stability of political systems. Moreover, it will be necessary to determine who is responsible for failings with serious consequences deriving from incorrect behavior of a robotic system.

Summary:

Technological diffusion provides more possibilities to access financial services by, for example, using people's mobile devices; this fits perfectly with the high level penetration of cell phones in emerging economies. In this case, digital transformation has the potential to help to overcome structural barriers to financial inclusion, such as geographical distance bureaucratic processes and documentary requirements, and to provide time-efficient processes.According to González, digital transformation also brings a low-cost framework for financial institutions, facilitating the evaluation process for opening a new client account or processing a loan, reducing an important barrier to traditional banks' offering financial services to low-income customers ,as well as attracting non-financial institutions that provide some financial services, generating more competition and more value for the economy.

One thing at least is clear is a revolution in the financial sector is unfolding before our very eyes, forcing us to reinvent banking and even to question whether it can survive as an institution. Every decision we make now must be approached with a great sense of responsibility, taking into account three key guiding principles. First, the customer must be put at the center of any initiatives with ambition to succeed. Second, as future developments in technology and the competitive landscape remain uncertain, we need to pay special attention to the rise of new challenges. And finally, collaboration and communication among all stakeholders -public authorities and private providers- is vital in order to make the most of digitization in finance, while preserving financial stability and ensuring adequate consumer protection.

Historically, boards have dealt with issues like executive compensation and succession planning, financial results, legal risks, potential acquisitions and business development.

For many companies, technology has not been on the agenda aside from the occasional CIO briefing. But technology is now a key issue, and the reality is that boards are ill-equipped to assess and make decisions about the issues confronting financial services companies as indicated by Chris Skinner, (2014).

That must change. Companies need to prioritize digital transformation to keep up with regulations and delve into new profitable businesses. The boards of financial services companies are taking notice, but there are hurdles to overcome, as finding directors with the appropriate technology experience may be challenging. Sir Philip Hampton, former chairman of Royal Bank of Scotland, said in an interview that RBS was keen to hire a technology expert to join its board but that they were not easy to find.

However, banks should also realize that having one or two technology experts on their boards is not a panacea. The challenge is to bring about more fundamental change in boardroom culture by ensuring that the opportunities and risks posed by technology take a much higher priority on the boardroom agenda. What is required is a combination of technology experts with deep expertise and also much improved knowledge and insight into the impact of technology among the other members of the board.

Research Gaps:

In recent years there has been an increased focus on identifying the determinants of digitization in retail banks in the world. Prior studies have found that e-banking has a positive feedback and yield more returns to the overall profitability of retail banks and at the same time ensuring quality of services to its customers. It is also in the public domain that most banks have digitized their operations in order to boost their overall performance; this is a fact that needs to be confirmed through the study. Previous research has also widely investigated the relationship between the enactment of e-banking and its impact on the performance of the banks as shown by Saleh M.& Andrea Schaechter, (2002). However, the results obtained are inconclusive or even contradictory and thus consequently, many researchers have concluded that more research is needed in the area to establish the determinants of digitization in retail banks.

3. RESEARCH METHODOLOGY

Introduction:

The aim of this chapter was to define the research design and methodology used in the study. It presented the target population, sample size and technique, the instruments used, data collection procedure, data processing and the technique that was used to analyse and organize the data in order to write a report and provide findings.

Research design:

The study made use of descriptive research design where the researchers asked a few respondents who deal directly with the users of the system to identify and describe the issues related to the Internet banking. Results from the small group were used to generalize the entire country situation and come up with a solution.In the descriptive design the researcher collected information of the retail banks without changing the environment. For instance, the researcher reported the information obtained from the interaction with the study participants and observation of the banking sector. The descriptive study and survey methods were used to interview and administer questionnaires to the respondents of the study as show by Mugenda, M and Mugenda, (2003).

Target population:

The target population was the bank employees and customers of the retail banks in Kitale town. The researcher targeted employees in the managerial and supervisory roles in the selected five retail banks in the County. Twenty questionnaires were distributed to each retail bank targeted by the researcher. A total of fifty (100) questionnaires were administered by the researcher followed by an interview schedule on randomly selected branch managers of the retail banks.

Sample size and technique:

The study concentrated on the top management staff in each branch that is the branch manager and operations manager. It also included the bottom level staff to indicate a feel of the whole organization. In head office, it was the heads of different departments and mid-level managers and a few customers of the selected banks.

Table 3.1: Sampling frame and size for the study

Category of Employees	Target Population	Sample size
Top Management	20	20
Mid- level employees	60	60
Customers	20	20
Total	**100**	**100**

All the retail banks in Kitale town were considered for the study. The study adopted a census of the whole population.Data on the performance was collected based on what the branch managers knows and the experience they have. The branch managers were chosen because they deal with a variety of bank customers daily. The researcher used stratified sampling, convenient sampling and pick willing Customers who were present during the time of administering the questionnaires at the selected bank. The researcher l used a sample size of 100 respondents because it was an intensive study and also considering the availability of branch managers at their respective offices. This sample enabled the researcher to collect all the required information within the set time frame. The sample size was also used because it reflects the budget limit of the researcher

Instruments:

Data was collected by use of the questionnaires and interview schedules that were administered by the researcher. The researcher used closed item that are useful in data coding and analysis to the respondent, the choices assisted in responses. The use of Likerts scale questions eased measurement of levels of agreement or disagreement on certain variables. Recorded data from participating banks that have website was also useful to supplement the collected information.

Data collection procedure:

Acquaintance with the retail banks was done three days before actual presentation of questionnaires and interview schedules to the respondents. Prior to presentation of instrument, the researcher communicated to the bank managers to seek consent and arranged to deliver the questionnaire and also conduct the interview schedule.

Data Processing and analysis:

According to Kothari, (2005), data analysis is the application of reasoning to understand and interpret the data that has been collected. Content analysis has been defined as a research technique for the objective, systematic, and quantitative description of the manifest content of communication. Kothari also described content analysis as a method of analysing contents of documentary materials such as books, journals, magazines, newspapers and most importantly, content of verbal material sources whether spoken or written.

Data was analyzed through the use of descriptive statistics including measures of central tendency in particular the mean frequency distribution table, percentage and pie charts. Percentages gave proportions of banks providing internet banking in Kitale town.

The use of other graphical representation was applied to give a clear picture of the extent of the situation as such. The researcher eventually used correlation to determine the relationship between dependent and independent variables as indicated by Field, (2005). Regression analysis was used to determine the nature of relationship.

$Y= \beta_0+\beta_1X_1 +\beta_2X_2+\beta_3X_{3+} \beta_4X_4+e$

Where;

$\beta_0, \beta_1, \beta_2, \beta_3, \beta_4$ –Coefficients of Regression

Y- Retail banking Digitization

X_1 –Electronic security

X_2 –Financial Liquidity

X_3 –Financial Electronic budgeting

X_4 -Government Policy

e- Error term

4. RESEARCH FINDINGS AND DISCUSSIONS

Introduction:

The chapter focuses on the presentation and analysis of data and information collected through the questionnaires administered to the branch staff of the 5 retail banks represented in Trans Nzoia County. The 5 retail banks represent a sample size of the 12 registered commercial banks with branches in Trans Nzoia County. The data presented and analyzed

in this study is dichotomized into two parts. In this chapter, the primary data collected through questionnaires are analyzed and presented. The analysis is used to validate or nullify the earlier stated hypothesis. In doing so, the simple percentage is used to analyze the personal data of respondents and multiple regressions were used in analysis of the research questions and testing of the research hypothesis. A total of 100 questionnaires were distributed to the bank staff through their Branch managers and 70 were completed and returned.

Response rate:

The response rate for the study was calculated as follows:

$$\frac{70}{100} * 100 = 70$$

This shows that only 70% of the questionnaires were analyzed. A total of 100 questionnaires were distributed to the bank staff through their Branch managers and 70 were completed and returned.

Demographic Characteristics:

The demographic information is useful in explaining the total number of males and females and also the age brackets. It shows that the opinion of different gender varies in reference to the study and also the ages of respondent's matters because the respondents have different opinions as far as age is concerned.

Gender:

Table 4.1: Gender Information

Sex	**Frequency**	**Percentage**
Male	51	72.5%
Female	19	27.5%
Total	**70**	**100%**

The above table shows the gender of the respondents. Of these respondents, the male were 51 with representing 72.5% of the respondents and female are 19 representing 27.5% of the respondents. This shows that males are more amongst the respondents than females.

Age:

Table 4.2: Age of respondents

Age	**Frequency**	**Percentage**
20-30	18	25%
30-45	26	37.5%
45-50	11	15%
Above 50%	15	22.5%
Total	**70**	**100%**

The above table shows the age of the respondents. It shows that 25.5% of the respondent are below 30 years old, 37.5% are between 30-45years old , 15% are between ages 45 and 50, while 22.5% are above 50.

Duration in the bank:

Table 4.3: Duration in the bank

Period in the Bank	**Frequency**	**Percentage**
0-5 years	8	12.5%
5-10 year	18	25%
10-20 years	26	37.5%
Over 20 years	18	25 %
Total	**70**	**100%**

The above table shows the duration that the respondents have worked in the bank. The result shows that 12.5% respondents have worked in the bank for less than 5 years.25% have worked 5-10 years, 37.5% have worked 10-20 years, and 25%, have worked for more than 20 years.

Current position at the bank:

Table 4.4: Current position in the bank

Position at the bank	Frequency	Percentage
Bank officers	25	35.8%
Banking assistant	35	50%
Customer Service Manager	5	7.1%
Branch Manager	5	7.1%
Total	**70**	**100%**

On the current position at the bank, 35.8% were the bank officers,50% had the title banking assistants, and 7.1% were customer service managers, while the remaining 7.1% were the branch managers.

Digital Platforms employed by banks in Trans Nzoia County:

Table 4.5: Digital platforms employed

Digital platform employed	Frequency	Percentage
Mobile Banking	5	100%
Internet banking	5	100%
Debit and Credit cards	5	100%
ATMs	5	100%
Total	**5**	**100%**

The above table shows that all banks have employed mobile banking, internet banking, debit and credit card banking and all have ATMs. This shows 100% adoption of all digital banking platforms to ensure efficiency, productivity and success in the banking industry.

The respondents were further asked about the role of digitization on the performance of their banks and 90% agreed that digitization has increased their performance due to the increase in sales and efficiency that it has created. Other positions held by the respondents were the risk department employees, procurement unit, credit department, IT among other departments. Generally, most were from the retail department and had rotated within the retail department. Majority of the respondents recorded at 90% were not involved in the strategy formulation and decision making in their respective banks

Table 4.6: Electronic Security as a determinant of digitization

ELECTRONIC SECURITY	Strongly agree %	Agree%	Not sure%	Disagree %	Strongly disagree %
Electronic security has led to adoption of mobile banking in my bank.	39.5	45.1	4.9	7.7	2.8
Electronic security has led to adoption of internet banking in my bank.	24.6	48.2	18.7	3.6	4.9
Electronic security has led to adoption of debit and credit cards in my bank.	38.7	39.2	14.3	5.0	2.8
Electronic security has led to adoption of ATM banking in my bank.	32.5	23.2	17.6	23.9	2.8
Electronic security has led to adoption of passwords in my bank.	18.9	36.3	13.8	15.9	15.1

The above results indicate that 39.5% strongly agreed that E-security has led to adoption of mobile banking and 45.1% agreed. On the other hand 7.7% disagreed while 2.8% strongly disagreed. The remaining 4.9% were not sure if E-security has led to adoption of mobile banking. This shows that majority of the respondents agree that e-security is a determinant of digitization.

The respondents were asked if E-security led to adoption of internet banking. Most of the respondents (48.2%) agreed and 24.6% strongly agreed.4.9% strongly disagreed while 3.6% disagreed. The other 18.7% were not sure if E-security led to adoption of internet banking. This shows that majority of the respondents are in agreement that e-security indeed determines digitization. The respondents were asked if E-security led to adoption of debit and credit cards. Most of the respondents (39.2%) agreed and 38.7% strongly agreed; 2.8% strongly disagreed while 5.0% disagreed. The other 14.3% were not sure if E-security led to adoption of debit and credit cards. This shows that majority of the respondents agree that e-security is a determinant of digitization.

When asked whether E-security has led to use of ATM cards, 32.5% strongly agreed, 23.2% agreed, 23.9% disagreed and 2.8% strongly disagreed. The rest (17.6%) were unsure whether E-security has led to use of ATM cards. This shows that majority of the respondents are in agreement that e-security indeed determines digitization. Lastly the respondents were 13.8% unsure whether E-security led to adoption of passwords. 15.1% strongly disagreed and 15.1% disagreed. On the contrary, 36.3% agreed and 18.9% strongly agreed that E-security led to adoption of passwords. This shows that majority of the respondents agree that e-security is a determinant of digitization.

Analysis of Variance:

Table 4.7: ANOVA

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	52.322	4	13.080	157.613	.000[a]
	Residual	2.764	65	.043		
	Total	55.086	69			
a. Predictors: (Constant), Government policy, E-security, Financial budgeting, Liquidity b. Dependent Variable: Retail banking digitization						

Analysis of variance (ANOVA) can determine whether the means of three or more groups are different. ANOVA uses F-tests to statistically test the equality of means. The test of ANOVA was also carried out (Table 4.7) to test the determinants of digitization in retail banking in Trans nzoia County. The result of the ANOVA shows an F result of 157.613. A significantly high F-value like the results achieved shows that the result is significant. When the test was run at 0.05 significance level, the p value was 0.00. If P is less than α=0.05 then the result is significant. This means that the researcher will reject the null hypothesis for all variables.

Sathye, (2005) compared the performance of major credit union in Australia and a significantly found that transactional internet bank does not have significant impact on the performance of unions. Similarly, Delgado, Hernando, and Nieto (2007) observed that primarily internet banking in Europe affect performance negatively. Ciciretti, Hassan, and Zazzara (2009) found a significant positive relationship between offence of internet banking product and Italian banks performance and a significant negative relationship between adoption of internet activities and banks performance. From the ANOVA analysis, the research supports Sathye and Ciciretti et al. However it critiques the findings of Delgado et al.

Table 4.8: Model Summary

Model Summary									
					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.975[a]	.950	.947	.20621	.950	157.613	4	65	.000
a. Predictors: (Constant), Government policy, E-security, Financial budgeting, Liquidity									

From the table above 94.7% of the relationship between the determinants of digitization ad the retail banking digitization in Trans nzoia county is explained by the independent variables namely e-security, government policy, financial budgeting and liquidity. The remaining 5.3% is the relationship by other variables

The value of R square is 0.950 as in table above. This indicates that the independent variables explain 95% of the variance in the dependent variable.

5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction:

The chapter highlights on the summary of the study, its conclusions and recommendation by the researcher from the study.

Summary:

The cognate purpose of this study was to assess the determinants of digitization in retail banking in Trans Nzoia County. The target population for the study was 100 (one hundred) respondents drawn from various banks in the county. The employees were from the top management to the lower level employees. Specifically the study investigated; the effect of electronic security on digitization of retail banks, the effect of liquidity on digitization of retail banks, the effect of financial electronic budgeting on digitization of retail banks, the influence of government policies as a control variable on digitization of retail banks. Regression analysis was done for the period to determine the determinants of digitization of commercial banks in Trans Nzoia County. The findings on the coefficient of determination, the study found that major changes in the digitization of commercial banks in Trans Nzoia County could be accounted to changes in e-security, liquidity, financial budgeting and government policies 95% confidence interval. From the findings on the R correlation the study found that there was a strong relationship between digitization of commercial banks and e-security, liquidity, financial budgeting and government policies. From the coefficient result, the study revealed that there is a positive relationship between digitization of commercial banks and e-security, liquidity, financial budgeting and government policies. The study further revealed that there was a statistically significant relationship between digitization of commercial banks and e-security, liquidity, financial budgeting and government policies

Conclusions:

The overriding purpose of this study was to determine the determinants of digitization on retail banking -A case of Trans Nzoia County. To accomplish that goal it became necessary to reach some prerequisite goals. Determining what general E-banking means and how ideal is it connected with a role in the digitization of commercial banks, it also assumed a high degree of importance during the literature review conducted for this project. Two versions of survey instrument were developed. One survey was responded to by the branch managers while the alternate version was answered by the other branch employees of various commercial banks in Trans Nzoia County. The below were the results of the hypothesis testing

$H0_1$: E-Security does not have a significant effect on the digitization of retail banks in Trans Nzoia County.

All the respondents were asked about the implementation and usage of E-security in their bank .The results that the researcher got indicated that the respondents strongly agree that Electronic systems have influenced digitization in their banks while a few disagree with the hypothesis that Electronic security has in any way influenced digitization in their respective banks. When considered by all respondents in the context of the selected banks for consideration-e-security was reported to be a key determiner among the respondents of the study of commercial banks. This shows that E security is a determinant digitization and thus we reject the null hypothesis

Recommendations:

The following recommendations are offered for related research in the banking sector; given the changing nature of the business in banking sector, a series of longitudinal studies based on this model would document trends and thereby increase the potential that decisions regarding the performance of retail banks would be relatively current and less exposed to security threats. Banks must establish seamless customer integration across both online and offline channels, achieve global scalability, and develop comprehensive mobility and portability capabilities. To bring additional expertise

to their digitized strategies, banks should consider leveraging channel partners including partner managed community elements and vertical portals. Promoting support, community, adaptability, and convenience will require offering customers a highly personalized experience.

Areas for Further Research:

The study has established the determinants of digitization in retail banking in Trans Nzoia County. The study is a milestone for future research in this area, particularly in Kenya. Available literature indicates that as a future venue for research, there is need to carry out research in other industries to generalize the findings.

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