

Digital Banking Transformation and Performance: Where Do We Stand?

Samuel Hakizimana

Department of Business Administration, Kenyatta University, Kenya

Muraguri-Makau Charity Wairimu

Department of Business Administration, Kenyatta University, Kenya

cmuraguri2010@gmail.com

Stephen Muathe

Department of Business Administration, Kenyatta University, Kenya

muathe.stephen@ku.ac.ke

Corresponding: samhakizimana@gmail.com

ARTICLE INFO	ABSTRACT
<p><i>Article History:</i> Received: 02 Jan, 2023 Revised: 23 Feb, 2023 Accepted: 01 Mar, 2023 Available Online: 07 Mar, 2023</p> <p>DOI: https://doi.org/10.56536/ijmres.v13i1.404</p> <hr/> <p><i>Keywords:</i> Digital Access, Digital Banking Transformation, Digital Channels, Digital Value, Financial Inclusion, Regulatory Policies, and Performance.</p> <hr/> <p><i>JEL Classification:</i> M16</p>	<p>Every day an increasing number of business ventures are founded all over the world, however, these businesses require financial services to prosper. The conventional banking model though most relied upon by businesses the entry of digital banking is transforming the banking landscape. This paper focused on digital banking transformation and performance. Existing secondary data on digital banking transformation and Performance was examined using scoping review by searching on Google Scholar and other respective online libraries for articles about digital banking transformation. The findings indicated that the vast majority of commercial banks have put in place various approaches to ensure trade and investment. Commercial banks pursue access to financial services with the primary goal of expanding their customer base and, as a result, enhancing funds and lending records. The study recommended that for appropriate bank lending survival and performance, banks should improve their use of digital access, digital channels, digital value, and financial inclusion as it has recently been proved that they have an impact on the financial efficiency and performance of banks. As it has been demonstrated, banks need to use debit cards through effective monitoring initiatives to reduce unnecessary operational and labour costs. The study recommends governments assist commercial banks in combating technological crimes, hinder not only the financial system but also other businesses, thereby influencing the banking system.</p>

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INTRODUCTION

The banking industry is rapidly changing and diversifying its business operations as a result of a digital revolution. The subject of digital transformation in business activities in commercial banks is also getting a lot of attention from scholars, legislators, and businesses. Developing financial and banking software, digital banking, mobile banking solutions, fintech, etc., to be able to meet customer demand about interest rate liberalization, big data, mobile finance, risk management, internet finance, and customer relationship management are just a few examples of how commercial banks are undergoing a digital transformation (Indriasari et al., 2019).

This transformation fundamentally alters how commercial banks operate and provide value to customers. For a long time, experts have been curious about how digital transformation affects commercial banks' ability to create value. The distribution of digital transformation to company performance has proven to be a challenge for researchers and managers even though many commercial banks have invested significant time and resources into the topic (Do et al., 2022).

The Federal Reserve Payments Study 2016 states that mobile and internet banking had not resulted in a significant amount of payments collectively (The FED 2017). Moreover, only just three years later, the Progression of the United States Neobank Industry Report asserts that 89% of US survey participants use cellphone internet banking, with 70% using online payments exclusively to access their bank accounts (Tesfaye, 2019). Cherotich, Sang, Shisia, & Mutung'u (2015) cleared and transmitted value was examined in a study on capital markets and achievement of Kenyan commercial banks of EFT, ACH, and RTGS channels but failed to capture the critical mobile channel. Kalunda (2015:57) study measured penetration with the number of divisions and came to regret the exclusion of data on "ATMs, online, mobile telephone platforms and agency banking" because the "banking industry was experiencing a complete delivery channel revolution

Organizations are from day to day bombarded by dynamic changes from political, economic, social, technological, environmental, and legal factors. The way an organization responds to these changes determines, in the long run, its ability to thrive or perish. Abadi (2009) asserts that the competitive advantage of a firm is a temporary state and can switch at a rate determined by the industrial clock speed in which the firm is operating. Fine (2000) makes the argument that ultrafast clock accelerates in information and communications technology have a major contribution to the supply chains of every other industry globally.

Wynn, Whitley, Muathe (2010), Myers, and DeGross (2013) opine that in the last two decades, information and communications technologies (ICT) have shrunk the world to the size of a pea. International economic integration with a unified market dominated by knowledge as a critical factor of production has created an insatiable demand for the fulfillment of faster economic transactions between organizations and nations. Reese (2009:1) describes this phenomenon as "shifting relationships of power through the intensification of social interconnections where the world can be apprehended as a single place". Bech, Preisig, and Soramaki (2008) posit that demand for foreign exchange services and faster financial transactions has increased the need for cross-border and offshore infrastructure. This connectivity is continuously redefining the way banks operate to realize their bottom-line. Banks are the world economy facilitators and their financial performance is of great interest to many a stakeholder (Ionica, 2013).

Cherotich, Sang, Shisia, and Mutung'u (2015); Kalunda (2015); Chipeta and Muthinja (2018); and Musau (2018) all agree that digital banking has a significant beneficial connection with bank profitability but two studies of the contrary opinion. Muriu (2016:196) didn't find a "meaningful relationship between technological turbulence and m-commerce performance" while Jackson (2017:100) found that in the short run, an increase in the level of technology reduces bank profitability".

Because of the evolving of the fintech ecosystem that has ushered in non-banking service providers to the banking space, digital business strategy has been adopted as the only business strategy for organizations and much more so banks that seek to survive into the 2020s and beyond (Bharadwaj, El Sawy, Pavlou, & Venkatraman, 2013). The implementation of the digital business strategy also referred to as digitalization is a complete shift of paradigm away from the grandiosity of a chest-thumping organization to a laser focus on how best to improve the experience of the customer in the process of meeting their needs. World Fintech report reveals that 50.2% of Account holders worldwide have affirmed that they have bought and sold at least once with financial institutions due to their excellent system and a better price. (CapGemini, Linked In, & Afma, 2017). "Apple's main focus on consequences over characteristics led it to start dating design, digital, and liberal arts in aspects that helped bring people into the middle of the computational and storage calculation" catapulted it to the lead position of the most recent paradigm: mobile and social networking (Sigal, 2011:4). Google, Apple, Facebook, Amazon and Ali Baba (GAFAA) understood and used the internet paradigm of the 1990s, are now riding on the crest of the mobile and social networking paradigm, and are gradually taking over every sector of the economy (KPMG, 2019). Would it, therefore, surprise that Amazon's e-commerce market share is expected to cross the 50% mark by 2021 (Wahba, 2017) against the backdrop of a looming shutting down of 400 of 1,100 (36%) America's malls? (Christopher, 2016).

Banks whose processes are anchored on a 40-year-old monolithic legacy are being disintermediated by GAFAA while seeking to develop intimate real-time relationships with their existing and potential customers (Harte, 2015). As illustrated by Apple, mobile network operators (MNOs) and GAFAA start from the premise of personal experience with their customers. It is therefore far easier for MNOs and GAFAA to add a payment functionality that directly resonates with their consumers than it is for banks to add an intimate real-time relationship functionality on top of their monolithic legacy systems (KPMG, 2019). This study seeks to examine the digital banking transformation and management of commercial banks in Kenya.

The banking industry is in the middle of a defining digital transformation driven by customer demand for convenience and immediacy in the process of value transfer through online and mobile channels (Phaneuf, 2019). The industry is heavily regulated and has a monolithic ICT and KYC infrastructure whose change requires a nod from the regulator. Technology has on the other hand spurred non-bank fintech institutions to offer banking services to the bank clientele and is rapidly growing own niche with the unbanked and under-banked (Allan, Massu, & Svarer, 2013; Cheston & Rhyne, 2016). Lai, Chau, and Cui's (2010) study on internet banking adoption in Hong Kong and Safeena, Date, Kammani, and Hundewale (2012). Mobile banking adoption in India concluded that the studies involved small samples and that the technology acceptance model was more applicable to Western to Asian cultures. Both studies recommended that similar studies be undertaken on varying demographics in non-Asian regions for validation.

The customer is also increasingly adept to rent extraction from bank deposits and is given the cue that they are only willing to pay for value transactions like purchasing an asset or paying for a bill (Harte, 2015). Accenture (2017) reveals that consumers are value hunters and will only settle on the channel that gives the best experience in their quest to acquire a house, car, or any other deal on the block.

Ngumi (2013) recommended a future study be made on the extent to which financial innovation would contribute to financial social deepening, a measure of digital access in this study. Musau (2018) had already recognized "ATMs, Agents, internet banking and digital finance" as financial inclusion enablers through the achievement of lower production and access costs; and recommended the use of "financial engineering-driven channels" in future studies. Sporta (2018) recommended that studies be undertaken using interest rates, inflation rates, and financial innovation.

To address all these conflicting study findings and gaps, this study sought to critically examine the digital banking transformation represented by digital channels, digital value, digital access; interest and inflation rates; and financial inclusion on the financial performance of commercial banks in Kenya.

Research Objectives

- I. To establish the effect of digital channels on the performance of commercial banks.
- II. To determine the effect of digital value on the performance of commercial banks
- III. To assess the effect of digital access on the performance of commercial banks
- IV. To determine the regulatory policies on the performance of commercial banks

LITERATURE REVIEW

Financial Performance

Business performance can be defined with varying measures. Dess and Robinson (1984) defined the performance of an organization by return on assets and growth of sales. Raymond, Paré, and Bergeron (1995) measured performance from human resources and formal structure perspectives while (Brynjolfsson & Hitt, 2000) measured business performance with a productivity ratio compared to the industry average and the market value of the firm. Croteau & Bergeron (2001) found out that ICT investment contributed directly to the performance of the organization defined by Revenue growth, profitability, increase market share, and finance cash flow are all factors to consider. Bryan Jean, Sinkovics, and Kim, (2008) study found that ICT enhanced strategic performance through Technological innovation, market power, partner agility, customer loyalty, service quality, and open innovation are all important factors to consider.

Bech, Preisig, and Soramaki (2008); Keister, Martin, and McAndrews (2008) and Atalay, Martin, and McAndrews (2010) identified liquidity as the critical factor for banks because of the immediacy nature of high-value RTGS transactions and settlement risks. To protect banks from liquidity shocks akin to those experienced in 2008 bank better, the basel committee decided that the bank's core capital comprising of paid-up share capital and retained earnings be raised for 2 to 6 years (Berben, Bierut, van den End, & Kakes, 2010).

Muhoro and Mungai (2018) used return on assets to measure financial performance. All the studies reviewed used parametric measurements to measure performance. There however are critical factors, Clients, operational effectiveness, and opportunities for learning and development that Brynjolfsson and Hitt (2000); Chen, Hsu, & Tzeng (2011) assert are the antecedents of the organizations' financial performance. They are the real measure of the organizations' future long-term value. The balanced scorecard (BSC) originally introduced by Kaplan and Norton is used as a tool for aligning a company's human, knowledge, and structural capital with its approach (Asosheh, Nalchigar, & Jamporazmey 2010; Chen, Hsu, & Tzeng, 2011). Noreen, Brewer, and Garrison (2011)) recognize that a financial perspective is an incorporated set of success measures classified as finance, clients, operational effectiveness, and learning and progress. Financial performance has been used for a long time as the parametric measure of an organization's success but stakeholder theory as argued by Jensen (2000) has brought to the fore the significant importance of other non-parametric parameters like customer satisfaction, business processes, and organizational learning. ICT plays a pivotal role in business processes, organization learning, and customer service a factor that has not been critically studied. While keeping this in mind, this study will measure the financial performance of the banks by examining their profitability, liquidity and core capital.

Digital Banking

Digital banking is a disruptor because it shakes the very foundation of banking and is unsettling not only the banks but also the regulators. Banking is being re-written on a digital slate a-new. Bryan Jean, Sinkovics, and Kim, (2008) identified that superior ICT capability increased the absorptive capacity of firms that helped them to achieve higher efficiency and better financial performance at reduced production and transaction costs. The traditional account and KYC silo architecture is costly to run and is a barrier to banking access, an offer of value to the customer, and the growth of the bank's financial performance in comparison to the evolving digital banking ecosystem (Harte, 2015). Digitalization provides the capability for banks to scale from the traditional brick-and-mortar architecture to open and beyond banking.

Online banking, Credit cards, debit cards, electronic money transfer (EFT), done by machine teller computers, and super ugly settlement are all available through internet banking, internet banking, and phone money. Hyrmina (2019) defines internet banking as synonymous with web and online banking where the access to services is "through a [bank's] secure page". The FED (2017:10-11) developments in consumer and business payment choices study defined Bill payment services are "initiated either through a depository institution's or a biller's website or phone app," with digital wallet payment transactions "often encompassing a tap-and-go

operation with a cellphone at a trading company terminal and online payments as using “Accordance with agreed that aid in the security of credit card information supplied online in a variety of manners From Fed’s definition, mobile banking could qualify under the online banking category. Accenture (2017) also uses internet banking and online banking interchangeably. From the literature studied, online banking is therefore seen to be the same as web or internet banking but mobile banking has cut itself a niche within digital banking.

Scott and Zachariadis (2013) explain that RTGS is categorized as a time-sensitive Systemically Important Payment System (SIPS) also referred to as Large Value Payment Systems (LVPS) and largely operates through the Society for Worldwide Interbank Financial Telecommunication (SWIFT). Shroff (2007) and Padmalatha (2011) categorize transactions into three broad categories comprising SIPs (Interbank clearing, LVPS, and RTGS), financial markets (Government securities and foreign exchange clearing), and retail markets (MICR, non-MICR, electronic, mobile and cards clearing).

Digital Channels

Muriu (2016) argues that smartphones and other mobile devices are the driving force behind the transformation of People's banking and purchasing habits, as well as their expectations for service timely delivery and the delivery method. Deloitte (2018) defines digitalization as a “transformation of traditional banking products and services from brick-and-mortar into internet and mobile”. Internet banking is also known as online or digital banking, and mobile banking is known as mobile financial services. (Accenture, 2017). The performance of a bank will therefore be dependent on how the implementation of its digital banking transformation equips it to deliver value cost-effectively and with immediacy. Accenture (2017) found that millennials and the generation want their banks to help purchase homes, cars, or any other need conveniently, easily, and quickly and crown it all with discounts and rewards. Accenture adds that they have no problem switching to another bank, Fintech or even a virtual bank as long as they get better value.

The following studies shed more light on the many channels available to banks through which to deliver value that will facilitate the achievement of their customers’ ambitions. Albertazzi (2017) found out that Americans paid their bills online, by mail, in person, by direct debit, and by phone channels. Accenture (2017) found that North American and Canadian banks deployed wearable technology, social media access/presence, virtual reality video conferencing/chat, telephone/call centers, ATMs, branch office/retail locations, mobile banking, and online/web banking channels at varying degrees. Deloitte (2018) and Backbase (2019) digital banking models had a branch, internet, and mobile as the primary channels. Branches, ATMs, agents, internet/online, mobile banking, and correspondence banking were identified as banking channels (Cherotich, Sang, Shisia, & Mutung’u, 2015; Kalunda, 2015; Musau, 2018). Rolfe (2019) posits that almost 50% of Kenya's GDP is driven by the mobile banking channel.

Digital Value

The digital value is about bringing to the under-served payments, remittances, savings, credit, and insurance, correspondent agents, assets, money advice, and financial literacy and capability (EIU, 2014; Chauhan & Joshi, 2018; Kambale, 2018; Muriuki, 2019). Accenture (2017) defines digital value as transactions that are simple, seamless, and at lower fees. Bharadwaj et al. (2013:472) define digital value as the differentiation the organization acquires when helping their customers meet their ambitions by “leveraging digital resources beyond the traditional view, beyond systems and technologies, and efficiency and productivity metrics”.

The digital value is about intimacy, privacy, and real-time relationship that the face-to-face meetings with the bank manager achieved 40 years ago to meet customer ambitions only that the digital banking ecosystem is offering it faster and scaled it from 30 customers per branch per day to 30 million customers per day in a branchless environment (Harte, 2015). Waldfogel (2018) book argues that it is a good thing that digital technology is wiping out traditional industries because the digital renaissance is delivering higher quality products and services at reduced production, distribution, and promotion costs. This indeed is the value that the market yearns for and the digital renaissance is delivering it much more so in banking.

Digital Access

It revealed that access to a channel may be defined by its cost, availability, safety, convenience, and how long the transaction will take to deliver the desired value. Accion International's (2011:1) definition of full financial inclusion is a government where anyone eligible for them has access to a full range of high-quality financial services that are reasonably priced." puts into context the cost factor. EIU (2018:8) highlights the fact that "payment friction and costs are significantly lowered for all stakeholders by the digital ecosystem that facilitates "access [to] better-quality financial services". Godinho and Singh (2013) highlight the marginalization of Indigenous people in Australia for a lack of access to the digital and banking infrastructure. Non-traditional service providers are gaining ground because, with customer focus and agility, their product and service offers are cost-effective (CapGemini et al., 2017; Chauhan & Joshi, 2018). The agility factor brings to focus the fact that non-traditional service providers are prepared to enrich the experience of the customer in the course of delivering the banking service on an ongoing basis. Clearwater Payments (2018:1) posits that "today's tech-dependent, mobile-empowered consumers expect all transactions to be actionable, accurate, concise and accessible anywhere" leaving no doubt that the customer in the digital banking ecosystem has taken charge.

Financial Inclusion

Kenya's Vision 2030 has three (3) pillars namely: Economic, Social, and Political. GK (2007) opines that under the Economic Pillar is the achievement of bank stability, minimized liquidity shocks, and improved access to financial inclusivity for Kenyan households and small businesses through financial service deepening. The other countries that implemented faster payment systems to address the concern on financial inclusivity for the unbanked or under-banked populations as opined by Guo, Kauffman, Lin, and Ma, (2015) were South Africa, India, and the U.K. were also progressively working to facilitate financial settlements through the mobile phone to integrate contrasting high-value money transfer systems with low-value digital currencies.

To this end, the objective of enacting the National Payments Systems Act on 24th August 2014 on which RTGS is hosted was to bring greater convenience, higher efficiency, and lower transaction costs to the expanding financial market (GK, 2017).

Singhal (2018) posits that the jurisdiction of central banks is in ensuring a smooth implementation of the monetary policy to achieve a stable financial ecosystem, reduced systemic risks, and ensure that the country reaps technological innovation. Manning et al. (2009) in their book "The Economics of Large-value Payments and Settlement: theory and policy issues for central banks" posits that by the very nature of how strategic settlement systems are to the global financial system and the need to maintain its health, central banks in every jurisdiction play a pivotal regulatory and oversight roles at the apex of every settlement system (CBK, 2014).

A study by Guo, Kauffman, Lin, and Ma (2015) has shown that clustering of networks into large regional blocks increases profitability and competitiveness but also brought out a significant finding that "a smaller network of banks can contribute to the superior performance of the payments system when the payment services demand is more concentrated". It is therefore in the interest of the central bank that the national payment system benefits from regional blocks clustering decisively supports technology innovation from smaller bank networks and provides in some cases the infrastructure to ensure that payment settlement decisions are not "subject to the vagaries of human judgment" (Guo et al., 2015).

Digital channels and performance of commercial banks

Karjaluoto *et al.*(2015) noted that online channel is the use of innovative internet access (or technologies/tools) to develop a complete, aimed, and measurable communication that assists enterprises in acquiring and retaining clients. While fostering closer relationships with them. The adoption of digitalization in the banking industry is anticipated to have an impact on how banks develop financial goods and services, which will ultimately have an impact on client happiness and the success of these banks.

Jepchumba and Simiyu (2019) both developed and emerging nations are currently utilizing digital channels. The banking business is being completely transformed by digital advertising, which offers revolutionary potential for financial services. For banks to benefit from the rapid advancement of technology and the expanding middle class, they must now concentrate on integrating online marketing into their business strategies. The banking industry is represented in online advertisements with significant growth and transformational prospects. Banks have welcomed this trend mostly because of the broad scalability of digital channel campaigns. Our Financial Services portfolio's banking segment makes up the majority of it, and the Banking Sector Marketing Managers are essential to the company's performance in this segment.

Banking markets have struggled to provide commercially viable assistance to poor customers through established means (Ansari & Alouini, 2015). As a result, the design and performance assessment of communication systems both benefit from the modeling digital channel. Multipath, shadowing, and large- and small-scale fading are just a few examples of the various digital channel models that are accurately described in the literature for various sorts of occurrences ((Benedetto & Biglieri, 1983; Moualeu *et al.*, 2019).

Biglieri (1983) in his research indicated that in general, manufacturing enterprises lag behind other businesses in establishing effective tools for marketing and networks. However, the different levels and different interested parties and the segmentation of the media environment have forced industrial enterprises to reconsider their marketing communications strategies. Practitioners and academics alike are becoming more interested in digital marketing communications (DMC), especially when it is employed in the advancement of direct selling and trademarked logos.

(For instance, recent research has looked at ways to combine digital marketing channels with traditional marketing communications to reach out to industrial customers. Most likely because conventional marketing communications (such as advanced manufacturing advertising) are less essential than service quality, effective interactions, and other elements of the industrial marketing mix such as product, price, and location (Ivatury & Mas, 2008).

Digital value and Performance of commercial banks

In both developed and developing nations, digital advertising is currently popular. In truth, the commercial banking industry is in the grip of a digital advertising revolution that will revolutionize how financial services are provided. To capitalize on the rapid advancement of technology and the expanding middle class, banks that wish to profit must increasingly concentrate on incorporating digital advertising into their marketing plans. Digital advertising presents the banking industry with significant prospects for growth and transformation.

Commercial Banks have welcomed this trend mostly because of the broad scalability of digital advertising campaigns. Our Financial Services portfolio's banking sector makes up the majority of it, and the Banking Industry Marketing Managers are crucial to the company's performance in that sector (Mbama, 2018). Understanding how consumer communication is now actively negotiated rather than passively received is essential in the context of a changing media environment. Customers now have much more market power thanks to the transformation brought about by technological advancements in recent years. In addition to altering how marketing is done, the internet and other emerging digital technologies are also changing how we view it (Bataev *et al.*, 2019). The number of options, services, media, communications, and digital dialogues available to customers today is higher than ever. There is a greater demand for all businesses to comprehend how to use digital possibilities to conduct efficient marketing communications.

Hughes and Lonie (2007) noted that using a digital value of the level of service delivery in the financial institution sector has improved significantly as a result of significant technological advancements. When consumers used to line up in the banking halls to pay their energy bills, school fees, or any other financial activity, those days are long gone. By utilizing their ATM cards or the internet from the comfort of their homes,

they may now accomplish this whenever it's convenient for them. Furthermore, as the mobile phone industry has grown rapidly, the majority of bank institutions have captured this unutilized chance and partnered with mobile network suppliers to provide financial services to their clients.

One of the first and most popular services for retail e-banking is ATM banking (Balaram, Karunakar, & Jayadev, 2013) But according to a Central Bank of Kenya annual report, mobile banking has just eclipsed it in terms of penetration and usage many people with modest incomes now have access to mobile phones, which is the recommended explanation for this. A benefit of mobiles is the accessibility of reduced mobile operators in remote areas. The poor are most often more familiar with and trusting of mobile phone carriers than traditional banks and lenders. According to the research carried out by (Abuhasan & Moreb, 2021) in Palestine banks found that digital banks of all sizes were much more requirements of financial and relied less on traditional banking procedures than their non-Internet counterparts. (Jepchumba & Simiyu, 2019) discovered that the performance of Internet banking institutions was significantly better than the non-Internet groups using data from Italian banks. The emergence of social media marketing strategies has improved the efficiency and effectiveness of service delivery for both banks and their consumers.

Clients can now serve themselves more proficiently congratulations to self-service technology solutions, which reduce bank operating costs, which would otherwise reduce revenue. Because of social networks, it is now possible to engage with customers all over the world in aspects that were previously impossible when services were only easily obtainable. Salespeople are constantly looking for the next opportunity, according to Fournier and Avery (2011) who realized that social connections are an excellent source of leads. As a result, social media may now assist brands in becoming more well-known and persuading clients to try their goods or services, which has the potential to boost revenue, especially if advertising has become a viral sensation.

Sivakumar *et al.* (2020) revealed that the sales staff at companies can view what prospective clients are saying about their brand and rivals on social media Social networking opens up new ways for sales organizations to find, engage with, and understand their customers, according to (Evans & McKee, 2010), offers substantial advantages (Karjaluo *et al.*, 2015).

The ability of internet advertising to assist banks in integrating with and engaging both existing and potential clients is its primary use. Internet advertising does not have to be costly to be fruitful (Lu & Antoniou, 2000). They can also use the comments to enhance their services and products. Today, the performance of a bank is essential to its success. The keys to good corporate governance are sales revenue and gaining the competition's market share. Banks can enhance their results by utilizing digital advertising.

Digital access and performance of commercial banks

Aduda and Kingoo (2012) researched digital banking on the performance of commercial banks in Uganda stating that Bank clients appreciate a huge variety of real-worth goods and services. Through the use of digital access and communications networks in electronic banking. Electronic banking is the term for the application of information technology to banking activities. E-banking is a by-product of e-commerce, according to the banking system. Stability inquiries, checkbook requests, recording stop transfer of funds, direct debit directions, account creation, and other standard banking services fall under the business-to-consumer (B2C) sector. Furthermore, banks process payments on behalf of their customers who buy things from technologies such as e-sites. Mabwai (2016) who carried out his study on the Effects of Mobile Banking on the Financial Performance of Commercial Banks in Kenya stated that digital access has increased banks' ability to provide customers with services more effectively. In Kenya nowadays, the electronic banking system is centered on information and communication technology. Digital access is crucial to the functioning of the present banking system and, as the banking industry in Kenya has noted, is tied to the majority of banks' entire cash flow. The grade of service delivery in the banking industry has significantly improved because to digital access. So many of individuals living in developing countries have access to mobile phone phones but are not yet part of the

financial mainstream may find relief through mobile banking. It can improve access to basic financial services by significantly reducing duration and distance to nearby retail financial institutions, as well as the bank's operational costs and money transfer costs. Kiragu (2017) states that digital access improved service delivery standards in the banking sector mostly due to digital access. Automated Teller Machines (ATMs) and deposit machines now enable customers to conduct financial transactions outside of regular business hours. People can use online banking to check the balances of their accounts and make payments without having to physically visit a bank. Consumers will eventually no longer need to make all of their purchases with cash, leading to the development of a cashless society. Customers of banks have the option of paying for different products and services with online bank payments to the seller's account, which they can use to pay for things like airline tickets and initial public offerings.

Due to the widespread use of mobile devices, banks have also offered mobile banking to accommodate their always mobile clientele. Individuals can use their mobile phones for mobile banking to check the balances of their accounts and transfer money. Since the introduction of this innovation, banks have improved it by integrating mobile money transfers with consumer deposit accounts. Banking transactions have become simpler worldwide because of e-banking.

Financial Regulatory Performance of Commercial banks

To stable a nation's currency and manage inflation, the central bank of that nation implements a regulatory policy, which includes all other governmental measures. In any nation where the amount of money in circulation is regulated, monetary policy is a key tool for economic stabilization. Any government that wants to manage the amount of money in circulation must develop rules to limit both household and business access to credit. Without sound monetary policy, economic growth in a nation cannot be achieved. Economic growth is the steady rise in a nation's production of goods, services, and job opportunities. Bank management is looking to boost operational efficiency, and authorities are thinking about financial changes (Hsiao *et al.*, 2010).

Financial regulatory performance, according to (Kamei *et al.*, 1973) is a personal measure of how effectively a firm can use assets from its main business line to generate revenue. This word is also used to compare similar firms in the same industry or aggregated businesses or sectors. Financial performance can be quantified in a variety of ways, but each should be taken into account in tandem. Line items such as net revenue, cash flow from operations, and revenue from processes can be included alongside total unit sales.

Jackson and Fethi (2000) typically suggested that outside parties assess a commercial's capability based on its performance. This suggests the reason why a bank's performance is like a mirror. The performance of commercial banks is typically determined by how well goals are achieved. Financial performance refers to the results achieved in accomplishing an institution's exterior and internal goals which is a multidimensional entity that goes by many names, including development, success, competition, and survival. The "Legislature of Compensating Effect," also recognized as Gibrat's reasonable and fair growth rule, is a capital investment theory proposed in the early 1930s. Many wealth creation studies use the Law of Compensating influence as a base point. According to Jephumba and Simiyu (2019), a bank's growth rate is independent of its size.

According to the study carried out by Sadek *et al.* (2011) in Egypt noted that Commercial banks' performance is a multilevel build composed of four elements. Financial and market performance, including income, net profit, competitive positioning, money cycle time, and profit per share; human resource performance, which include employee engagement; and organizational productivity, along with time to market, level of innovation asset utilization, and supply management flexibility.

Currently, banking is referred to as innovative banking. The banking philosophy has completely altered as a result of financial innovation brought on by technological advancement, and the rivalry in the commercial banking sector has only accentuated this transition. More innovation has been produced in the areas of product, process, and market due to the challenging business environment inside the banking system. In the banking and

financial sectors, new improvements in product design and delivery have been made possible by information technology. Their primary focus is on providing excellent customer service (Djankov *et al.*, 2006; Kamau, 2010).

Millicent Cherotich *et al.*(2015) said that, with the use of new technologies, commercial banks have developed numerous projects aimed at improving client services. Internet banking has become a key tool for increasing efficiency and controlling operations, and the United Kingdom's international journal of economics, commerce, and management cost reduction by substituting labor-intensive, paper-based operations with automated ones, resulting in better productivity and profitability. Licensed under creative common page 1247 increased usage of paper money in place of cash is one of the banking industry's innovations in Kenya. For 48% of non-cash payments, checks are the primary paper-based form of payment. Magnetic ink character recognition (MICR) is used to ensure that checks are cleared quickly and effectively.

Financial inclusion and Performance of Commercial Banks

Hannig and Jansen (2011) Noted that Financial inclusion is the expansion of People's choices and access to regulated financial services, such as creating bank accounts, borrowing money, and saving through banks. As ICT transforms how people access and use financial institution services around the world, access to finance has tried to expand beyond branch offices.

Since 2007, Kenya has significantly expanded the reach of financial services (Hannig & Jansen, 2011). Many factors, as well as the increasing reach of the significant categories of financial providers, finance companies, savings and credit cooperatives (SACCOs), and microfinance institutions (MFIs), have helped contribute to this greater level of inclusion. The moment is that internet banking has been identified as a national priority in Vision 2030, and the third is the getting attention decided to bring about digital banking. Rapid technological change in the finance sector has resulted in the development of financial innovations, new products, and new forms of payment in Kenya.

Financial inclusion changes the composition of customers in terms of saving and borrowing behaviour. These compositional changes may support financial stability through risk diversification (Musau *et al.*, 2018). Nevertheless, if e-banking is prolonged to new places and attractions to investor clients, the lending risk rises, putting stability in jeopardy of security. (Ozili, 2021) observed that financial stability can enhance trust in the financial system and therefore improve financial inclusion. Excessive emphasis on financial stability, on the other hand, can extend uncontrollable economic rejection. Especially during times of regulation strengthening in a bid to increase revenues while trying to cut off risky activities.

The study carried out in China by Chen *et al.* (2018) stated that the majority of, microfinance is simple and easy in a more marketable financial system. According to the global financial development report 2013, they discovered in their research that competition in the financial services market decreases the price of financing while trying to increase credit supply. (Krause, 1999) discovered in their study of small and medium enterprises, they discovered proof that competitive pressure helps promote the digital economy in Spain.

Meanwhile, by having a more engaged relationship with customers, banks may be able to reduce the asymmetric information problem. Financial inclusion aids in bridging the gap between commercial banks and borrowers. The greater their proximity, the more information will be shared. With a wealth of previously hidden information, commercial banks can lend and price more prudently.

RESEARCH METHODOLOGY

This study, being exploratory, used a desktop review to collect and analyze data from online databases, the Internet, and government reports (Bennett *et al.*, 2005). This technique is low in comparison to field research, but it is a very effective technique that was discovered useful after the movement was restricted due to Covid-

19. The desk review was chosen for the study because it is a crucial component of the assessment. By gathering, organizing, and synthesizing the information that is already available, the team learns about the country's context, public health priorities, and healthcare trends. Equally important, the team also discovers gaps that need to be filled during the in-country fieldwork. To keep all materials organized and accessible to all team members, desk review duties include reading the literature, examining secondary data, and compiling a reference list. Also, this approach helps a researcher scan reports, gray literature, and laws and regulations associated with the domains, gender, and technical areas of interest. Finally, this method enables the researcher to keep more attention on the scope of the assessment and the data that the researcher will need for the preliminary synthesis and to create the final report because it's easy to become sidetracked (Finfgeld & Johnson, 2013).

The authors chose a scoping review methodology to achieve the paper's goal of summarizing peer-reviewed research on digital banking. With a rising number of methodological guidelines and resources to help review authors with their planning, conduct, and reporting, scoping reviews are becoming a more widely used method of evidence synthesis. This study revealed Scoping reviews to be made more rigorous by choosing the best review type for the stated research objectives or questions, standardizing methodological approaches and terminology, reporting findings with clarity and consistency, and making sure the results are presented in a way that directly addresses the review's objective(s) and question (Peters *et al.*, 2021)

Due to the limited availability of relevant literature. A reviewed literature was selected for its capability to spot knowledge gaps, examine new evidence, and define what needs to be investigated, but thoroughly and reasonably (Gerson *et al.*, 2020). The scoping review was based on the method developed by Khalil *et al.*, (2016). The researchers began the scoping review by searching Google Scholar and other respective online libraries for articles about digital banking transformation.

CONCLUSION AND POLICY IMPLEMENTATION

According to the findings, the vast majority of commercial banks have established a variety of strategies to ensure a digital economy. Commercial banks continue pursuing the digital economy with the primary goal of expanding their customer base and, as a result, increasing reserves and lending accounts. However, increased financial inclusion clues to an upturn in non-performing Loans (NPLs) which jeopardizes commercial bank solidity by increasing commercial bank credit risk. Because of increased deposit mobilization, the vast majority of commercial banks have established a variety of strategies to ensure a digital economy. Commercial banks continue pursuing the digital economy with the primary goal of expanding their customer base and, as a result, increasing reserves and lending accounts. First, the study recommended that for appropriate financial institution conservation and expansion, banks should improve their use of the study's four objectives, as it has been proved that they impact significantly the financial viability of banks. More emphasis should be put on raising the use of Debit/Credit Cards and ATM banking, especially when working with point-of-sale exchanges.

Electronic banking should be used by banks through proper management policies because it has been shown to reduce unnecessary operational and labor costs. Paperwork is also reduced, and efficiency and profit levels are increased. The study suggests that other aspects of electronic banking and economic achievement be investigated. For better analysis and interpretation, the time should be extended from 5 years to 10 years and beyond.

Lastly, the article makes recommendations for a policy through some comments and evaluations from the standpoint of policy distribution and suggests relevant solutions for commercial banks and other management authorities. Several technological obstacles confront both small and large institutions. Because they lack the resources and expertise to successfully adopt technology programs similar to those used by large banks, small banks frequently rely on inexpensive IT vendors. They also lack skilled IT personnel. To install technology

applications and people resources capable of data management, security, and software development, small commercial banks must balance their budgets.

We think that even if the study's goal was met, more control factors may be incorporated into the model.

Future Research

In this study, existing secondary data on Digital Banking Transformation and Performance were examined using scoping review by searching on Google Scholar and other respective online libraries for articles about digital banking transformation. According to Muathe (2010), and Terrell (2012), no scientific social study can be conducted solely using one methodology. As a result, in future research, primary data and quantitative techniques should be used to validate this work.

The practical implications of this study

The governments should also assist commercial banks in combating technological crimes, which not only affect the financial industry, but also has an impact on other sectors, and thus the economy. The bankers will find it helpful to acquire customer perspective if future research agenda includes participation from additional banks and other research focuses on the customer experience. Future studies will therefore be able to incorporate additional control variables based on the research's specific conditions and scope to more thoroughly evaluate how the digital transformation has affected the performance of commercial banks. Also, increasing the sample size will improve the reliability of the research findings in subsequent investigations.

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