Journal of
Business and Strategic Management
(JBSM)

Digital Innovations and Competitive Advantage of Commercial Banks in Kenya

Journal of Business and Strategic Management

ISSN 2520-0402 (Online)

Vol. 9, Issue No. 6, pp. 14 - 25, 2024 www.carijournals

Digital Innovations and Competitive Advantage of Commercial Banks in Kenya

[1*] **Juma Wycliffe Odhiambo**, [2] **Dr. Godfrey Makau**

[1*, 2] Jomo Kenyatta University of Agriculture and Technology

[1*] Student, [2] Lecturer

Accepted: 16th Aug 2024 Received in Revised Form: 16th Sep 2024 Published: 16th Oct 2024

Abstract

Purpose: The purpose of the study was to ascertain the role of digital banking technological innovations in enhancing competitive advantage among commercial banks in Kenya. Specifically, the study sought to examine the influence of digital technological innovations for market, digital banking innovations for differentiation, digital innovations for customer satisfaction and the influence of ICT infrastructure on competitive advantage of commercial banks in Kenya

Methodology: Descriptive research design was adopted for the present study. The study was carried out in Kenya, covering all the 39 solvent commercial banks in Kenya as of 31st March 2024. The study adopted the census data collection method from the headquarters of the 22 solvent commercial banks belonging to Tier 3. Four key officers including the sales manager, loan officer, relationship manager, and risk manager totaling to 88 were sampled to participate in the study.

Findings: The findings indicate that there is a significant relationship between market positioning and competitive advantage ($B = 0.292$, $p = 0.003$). On the other hand, Differentiation is established to have a negligible influence on competitive advantage in this model ($B = 0.027$, $p = 0.852$). Customer Satisfaction comes out strongly, as a factor that defines competitive advantage (Coefficient = 0.247, $P = 0.046$).

Unique Contribution to Theory, Policy and Practice: The study recommends that Kenyan commercial banks invest in continuous digital innovation, particularly in mobile and Internet banking, to strengthen market positioning, improve brand perception, and offer personalized services. Banks should also enhance their ICT frameworks for better service delivery, data protection, and adaptability to market changes. Emphasizing mobile banking innovations and staying updated with emerging digital trends will help banks reduce customer acquisition costs, expand their customer base, and maintain a competitive edge in a dynamic industry.

Keywords: *Digital Innovations, Competitive Advantage, Market Positioning, Differentiation, Customer Satisfaction.*

INTRODUCTION

Background to the Study

Digital banking innovations have become a global phenomenon, revolutionizing the traditional banking landscape worldwide. North America has been at the forefront of digital banking innovations, emphasizing mobile banking apps, contactless payments, and AI-driven solutions. Smith and Johnson (2021) highlights the rapid adoption of mobile banking apps in the U.S. and Canada, offering customers a range of features such as mobile check deposits, peer-to-peer payments, and personalized financial insights. The acceptance of contactless payments has also grown significantly in the area, especially with the rise in popularity of tap-to-pay cards, Apple Pay, and Google Pay (Gupta et al., 2020). AI-powered chatbots are being used by North American banks more and more to increase fraud detection, expedite procedures, and improve customer service (Brown et al., 2021). The region's innovation in digital banking has been further pushed by the emergence of fintech startups and partnerships between banks and tech firms (Meyers et al., 2020).

Digital banking innovations have also gained significant traction in Africa, transforming the financial landscape and providing new opportunities for financial inclusion and economic growth. This literature review examines the current trends, challenges, and opportunities of African digital banking innovations. Mobile money platforms enable users to send money, pay bills, top-up airtime, and even access savings and credit facilities through mobile phones (Karg et al., 2021). The success of mobile money has spurred the development of digital wallets and payment apps in various African countries, such as Paga in Nigeria and EcoCash in Zimbabwe, offering convenient and secure digital payment solutions (Mutai et al., 2020).

Kenya's widespread use of mobile devices, thriving fintech industry, and aggressive regulatory framework have made the country a pioneer in digital banking technologies. The present trends, difficulties, and prospects of digital banking technologies in Kenya are examined in this review of the literature. Kenya's experience with digital banking is closely linked to the success of M-Pesa, a mobile money service that Safaricom introduced in 2007. According to research by Mas and Ng'ang'a (2020), M-Pesa has revolutionized financial inclusion by providing millions of Kenyans with mobile phone access to crucial financial services. The platform allows users to easily send money, pay bills, buy airtime, and access savings and credit products (Mureithi et al., 2021). M-

Pesa has become a cornerstone of Kenya's digital economy, with over 80% of the adult population using the service (Mutai et al., 2020). Its success has inspired similar mobile money platforms across Africa and the world.

Despite the remarkable progress in digital banking innovations, Kenya faces several challenges that must be addressed. Research by Nyambura and Mwangi (2020) points out issues such as cybersecurity threats, data privacy concerns, infrastructure limitations, and digital literacy gaps. Enhancing cybersecurity measures, strengthening data protection frameworks, and investing in digital infrastructure are crucial for sustaining the momentum of digital banking innovations (Ouma et al., 2021). Additionally, efforts to improve the population's financial literacy and digital skills are essential for ensuring inclusive access and adoption of digital banking services (Opiyo et al., 2021).

Competitive advantage in the banking sector is crucial for banks to differentiate themselves, attract customers, and sustain profitability in a highly competitive environment. Banks increasingly focus on customer-centric strategies to gain a competitive edge (Kamal et al., 2020). Banks that excel in customer service, personalized offerings, and seamless customer experiences can differentiate themselves and build long-term customer relationships (Chung et al., 2021). This customer-centric approach involves leveraging customer data analytics, implementing CRM systems, and offering personalized financial advice and solutions (Lam & Burton, 2020). Adopting technology and digital transformation is a crucial driver of competitive advantage in the banking sector. Research by Nguyen and Pham (2021) highlights the role of digital banking innovations such as mobile apps, AI-driven chatbots, blockchain, and contactless payments in enhancing customer convenience, efficiency, and engagement. Banks that invest in cutting-edge technologies can streamline operations, reduce costs, and deliver innovative products and services to meet evolving customer expectations (Kesh et al., 2020). Furthermore, digital channels allow banks to reach new markets, expand their customer base, and compete with fintech startups and non-traditional players (Kumar et al., 2021).

Banks face challenges in the ever-evolving banking landscape despite the numerous opportunities for enhancing their competitive advantage. Research by Xu et al. (2021) identifies challenges such as increasing competition from fintech startups, rising cybersecurity threats, evolving customer expectations, and regulatory complexities. Banks must adapt to these challenges by continuously innovating, investing in cybersecurity measures, and enhancing customer engagement strategies (Li & Zeng, 2021). Existing literature has however not brought out the link between the investment

Study objectives

The study's main objective was to ascertain the role of digital banking technological innovations in enhancing competitive advantage among commercial banks in Kenya.

The specific objectives of the study included:

i. To examine the influence of digital technological innovations for market positioning on competitive advantage of commercial banks in Kenya.
ii. To establish the influence of digital banking innovations for differentiation on the competitive advantage of commercial banks in Kenya.
iii. To examine the influence of digital innovations for customer satisfaction on competitive advantage of commercial banks in Kenya.
iv. To establish the influence of ICT infrastructure on competitive advantage of commercial banks in Kenya.

LITERATURE REVIEW

Theoretical Review

Resource-Based View (RBV)

The Resource-Based View theory suggests that a firm's competitive advantage is derived from its unique and valuable resources (Barney, 1991). This study considers digital banking technological innovations as valuable resources that can contribute to a commercial bank's competitive advantage. It will analyze how these technological resources, such as mobile banking apps, online platforms, AI-driven services, and blockchain applications, create Differentiation and market positioning for banks in Kenya.

Innovation Diffusion Theory

The Innovation Diffusion Theory, developed by Rogers (2003), explains how new technologies spread and are adopted in the market through five categories of adopters: Innovators, Early Adopters, Early Majority, Late Majority, and Laggards. Each category has different motivations and attitudes towards adopting innovations, impacting the rate of technology diffusion. Moore (2014) highlights the "chasm" between Early Adopters and the Early Majority, which is caused by differences in expectations and urgency in the adoption process. This gap is particularly significant in business-to-business contexts, where high risks and costs influence decision-making across multiple stakeholders. In organizations, innovation adoption involves complex decision-making with both supporters and opponents playing a role in determining the adoption outcome.

Dynamic Capabilities Theory

The Dynamic Capabilities Theory posits that firms gain competitive advantage not just from possessing resources but from their ability to adapt, change, and innovate in response to market dynamics (Teece, 2007). In the context of this study, commercial banks' ability to adapt and integrate digital banking innovations into their strategies.

Porter's Generic Strategies

Porter's Generic Strategies framework outlines three main strategies for achieving competitive advantage: cost leadership, Differentiation, and focus (Porter, 1985). This study will examine how digital banking technological innovations enable commercial banks in Kenya to pursue differentiation strategies. It will investigate how banks use these innovations to create unique value propositions, improve customer experiences, and stand out in the competitive marketplace.

Technology Acceptance Model (TAM)

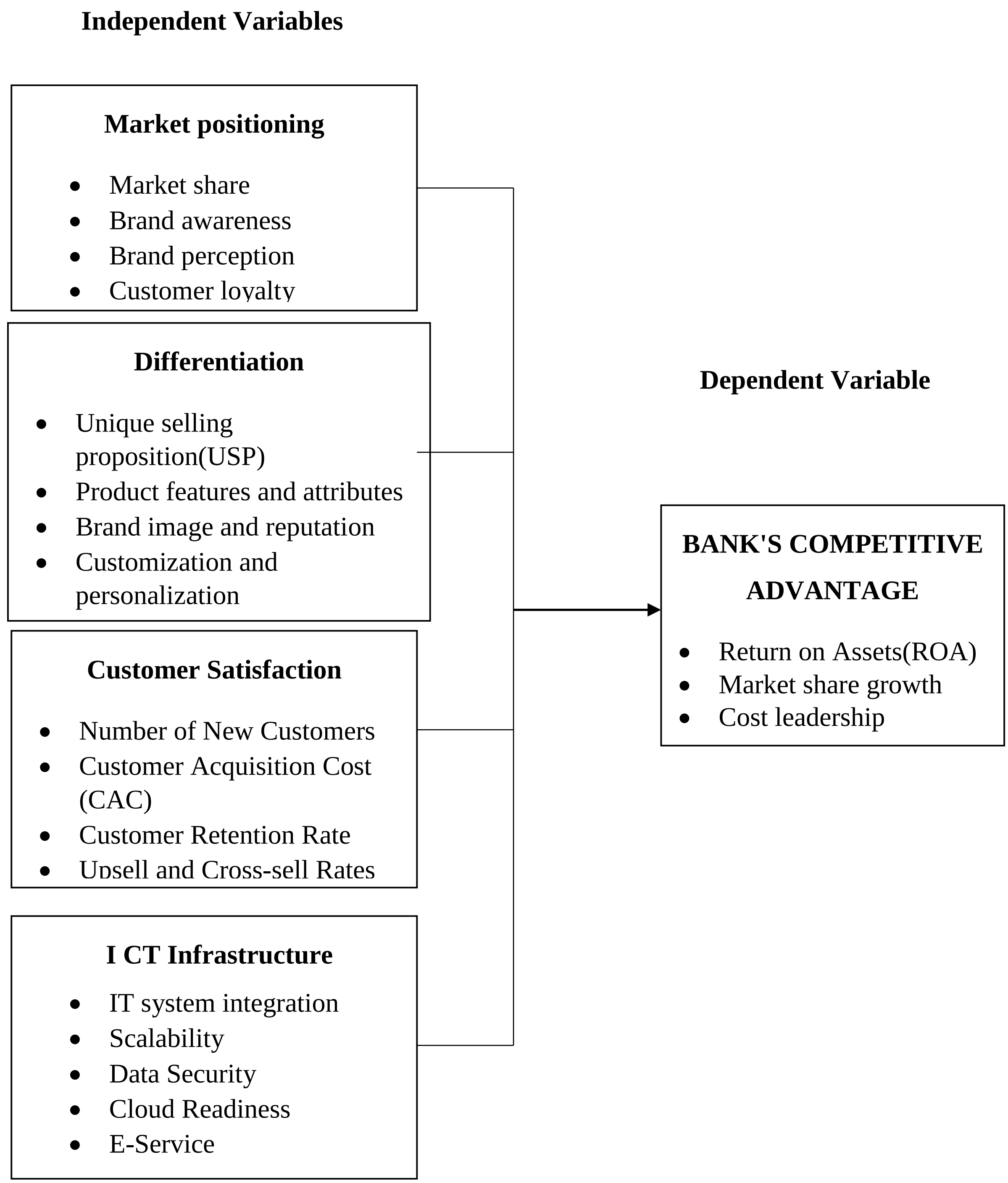
The Technology Acceptance Model suggests that user acceptance and adoption of technology are influenced by perceived usefulness and ease of use (Davis, 1989). In the context of this study, the TAM framework can be used to analyze how customers' perceptions of digital banking innovations impact their adoption. The study will explore how enhanced customer experiences and convenience through digital innovations contribute to customer acquisition, retention, and competitive advantage for banks.

Service Quality and Customer Satisfaction

The study will also draw from theories of service quality and customer satisfaction to assess the impact of digital banking technological innovations on customer experiences. Concepts such as SERVQUAL (Service Quality) (Parasuraman et al., 1988) and the Kano Model (Kano et al., 1984) can be used to measure and analyze the dimensions of service quality and customer satisfaction resulting from the use of digital banking services.

Conceptual Framework

The researcher's conceptual model guided this study because it considers many factors affecting organizational human resources succession planning (Issa, 2007). These included determinants of succession planning, family dynamics, ownership structure, leadership development, and business governance. It conceptualized the dependent variable as the efficacy of succession planning execution and independent as family dynamics, ownership structure, leadership development, and business governance. Factors beyond the scope of the present study but might affect this relationship include government policies, personal characteristics of the family members, and the prevailing economic factors affecting organizations.



Critique of Existing Literature and Research Gap

The existing research on digital banking innovations in Kenya highlights the significant role these technologies play in enhancing the competitive advantage of commercial banks. However, notable gaps remain, particularly in understanding customer segmentation and preferences. A deeper analysis of how different demographics, income levels, and geographic locations influence digital banking adoption is crucial. Such insights could help banks design targeted strategies for customer acquisition and retention. Moreover, while regulatory compliance is acknowledged as a challenge, there is limited research on the specific regulatory hurdles Kenyan banks face. Further studies could explore how banks navigate these challenges and how the regulatory environment impacts digital innovation.

Another key area that requires further exploration is the internal capacity of banks to leverage digital technologies effectively. Current research does not delve into the strategies needed to build the necessary skills, talent, and organizational structures for successful adoption of digital banking solutions. Future research could focus on the training programs and talent acquisition strategies that banks use to strengthen their digital capabilities. Additionally, while the study touches on market expansion through digital channels, a more detailed analysis of successful strategies, partnerships with fintech companies, and the use of digital marketing could provide actionable insights for Kenyan banks looking to tap into new markets.

There is also a research gap in understanding the broader socioeconomic impacts of digital banking innovations, such as their role in promoting financial inclusion and economic growth in Kenya. Exploring how these technologies contribute to poverty reduction and inclusive development could provide valuable insights for banks and policymakers. Furthermore, a comparative analysis with global best practices in digital banking would help identify areas where Kenya's banking sector could improve. With cybersecurity being a growing concern, there is also a need for research on the specific threats facing Kenyan banks and effective strategies for mitigating these risks. Addressing these research gaps will not only enrich the knowledge base but also offer practical guidance for enhancing innovation, customer experiences, and competitive advantage in Kenya's digital banking landscape.

RESEARCH METHODOLOGY

According to Terre and Durrheim (2014), descriptive statistics describe the features of a population or sample, whereas inferential statistics derive inferences about the population. When data is gathered to characterize organizations, people, phenomena, or settings, according to Creswell (2013), a descriptive research design is used. Based on this analysis, a descriptive research design was deemed the most suitable for the present study and was thus be adopted. The study was carried out in Kenya, covering all the 39 solvent commercial banks in Kenya as of 31st March 2024. A sampling frame, as defined by Särndal, Swensson, and Wretman (2003), is the source material or device from which a sample is drawn. This study's sample frame consisted of a list of the senior managers of all the listed commercial banks in Kenya. A census is also considered the best method when the source of information is a small population (Baffour et al., 2020). The census is deemed the best source of information on small population groups regarding area or membership. Four key officers were selected and considered the custodians of the information needed from each headquarters. These officers included the sales manager, loan officer, relationship manager, and risk manager. The total number of respondents will be (22*4) =88. The questionnaire was deemed the most suitable instrument because of its capacity to gather information from a large population while maintaining accuracy. According to Nachmais et al. (2006), reliability refers to how much a measuring instrument contains variable mistakes that vary from one measurement attempt to the next or vary each time the same instrument measures a specific unit. The assumption that the data is normally distributed (normality), that the data is linear (linearity), that there is no multicollinearity, and that the sample data is heteroscedastic are among these assumptions. As a result, diagnostic tests were conducted in this study to check that the regression model's assumptions were satisfied.

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Summary of Findings

The study highlights the significant role of digital innovations in enhancing the competitive advantage of Kenyan commercial banks, particularly in market positioning, differentiation, customer satisfaction, and ICT infrastructure. Digital innovations strengthen market share, brand awareness, customer loyalty, and overall competitiveness, with high approval ratings from respondents on these factors. They also enhance differentiation by enabling banks to create unique value propositions and new products, supporting Barney’s (1991) view on differentiation as a key strategy for competitive advantage. Digital innovations have positively impacted customer satisfaction by improving customer acquisition, retention, and upselling, contributing to sustained growth and profitability. In terms of ICT infrastructure, digital innovations are crucial for efficiency, data security, and the ability to respond to market forces through IT solutions and cloud technology. Overall, digital technological advancements are essential for maintaining a competitive edge in Kenya's growing banking sector.

Conclusions

The study concludes that digital innovations play a crucial role in enhancing the competitive advantage of Kenyan commercial banks by strengthening market positioning, improving differentiation, boosting customer satisfaction, and developing robust ICT infrastructure. Digital technologies, particularly mobile and Internet banking, contribute to increasing market share, reducing customer acquisition costs, and improving retention through personalized services and value propositions. However, a key area for improvement lies in optimizing digital platforms to enhance brand image. The findings emphasize the importance of continuous investment in digital innovations to remain competitive in a dynamic market, with market positioning having the greatest impact on competitive advantage and differentiation the least. A strong ICT framework, integrated IT solutions, and enhanced data protection are essential for banks to adapt to evolving market demands and maintain relevance.

Recommendations

The study recommends that Kenyan commercial banks should continuously invest in and update their digital innovation processes, particularly in mobile and Internet banking, to strengthen market positioning, enhance unique selling propositions, and improve product offerings. To address weaknesses in brand image optimization, banks should focus on personalized services, targeted marketing, and active engagement on digital platforms to build customer loyalty. Strengthening ICT frameworks with integrated IT solutions, enhanced data protection, and cloud-based systems will improve service delivery and adaptability to market changes. Leveraging data from digital platforms to offer personalized services and retention strategies will enhance customer satisfaction. Furthermore, banks must stay updated with the latest digital trends and prioritize mobile banking to reduce acquisition costs and increase account growth. Continuous innovation is key to maintaining a competitive edge in an increasingly dynamic and competitive banking environment.

REFERENCES

Aksulu, A., & Oztaysi, B. (2018). Regulatory Challenges and Operational Efficiency in Digital Banking. *Journal of Financial Regulation and Compliance*, 16(3), 32-45.

Alalwan, A. A., et al. (2017). User Experience and Differentiation in Digital Banking: A Comparative Study. *Journal of Business Research*, 70, 1-10.

Allen, H. (2017). The growth of mobile banking apps and digital wallets in the Middle East and Africa. *Journal of Financial Innovation*, *7*(1), 55–68.

Asiamah, F. E., Adomako, S., Amankwah-Amoah, J., & Mensah, J. (2017). "Corporate governance, risk management, and bank performance: Does bank category matter?" *Journal of Financial Services Research*, 52(3), 215-239.

Boateng, H. (2020). Customer loyalty in the banking sector: The role of digital technologies. Journal of Financial Services Marketing, 25(4), 352-362. https://doi.org/10.1057/s41264-020-00092-w

Bonett, D. G., & Wright, T. A. (2015). "Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning." *Journal of Organizational Behavior*, *36*(1), 3–15.

Brown, R., Carter, L., & Davis, M. (2021). AI-powered chatbots in North American banks: Improving customer service, operations, and fraud detection. *Journal of Financial Technology*, *5*(2), 87–99.

Chung, Y., Park, K., & Kim, J. (2021). Customer-centric strategies for competitive advantage in the banking sector. *Journal of Retailing and Consumer Services*, 59, 102361.

Cooper, D. R., & Schindler, P. S. (2011). *Business research methods (11th ed.)*. McGraw-Hill/Irwin.

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.* Sage Publications.

Dai, X., Li, Y., & Li, H. (2020). Strategic partnerships and alliances in banking: Expanding product offerings and market reach. *International Journal of Bank Marketing*, 38(6), 1319-1333.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*(3), 319–340.

Terre, B. L., & Durrheim, K. (2014). *Research in practice: Applied methods for the social sciences*. Juta and Company Ltd.

Thakur, R., & Workman, L. (2020). Customer engagement and competitive advantage: The role of customer relationship management and technology in the banking industry. Journal of Business Research, 113, 233-241. https://doi.org/10.1016/j.jbusres.2019.09.022

Tiwari, P., Pandey, K., & Nandan, R. (2021). Fintech ecosystems in the Asia-Pacific region: Government support for innovation and partnerships with tech giants. *International Journal of Electronic Finance*, 15(4), 375-390.

Wambua, J. M., & Mwangi, M. M. (2017). Effect of ICT Innovation on Operational Efficiency of Commercial Banks in Kenya: A Case of Equity Bank Limited. *European Journal of Business Management*, 9(3), 77-85.

Wollenburg, J., & Schoder, D. (2019). Operational Efficiency through Automation: Evidence from the Banking Sector. *International Journal of Operations and Production Management*, 39(7), 890-908.

Wright, P. M., Dunford, B. B., & Snell, S. A. (2021). Human resources and the resource-based view of the firm. *Journal of Management*, 27(6), 701-721. https://doi.org/10.1177/014920630102700607

Wu, X., Zhang, J., & Zhang, Q. (2020). Mobile payment apps in Asia-Pacific: The dominance of Alipay, WeChat Pay, and Paytm. *International Journal of Electronic Commerce Studies*, *11*(2), 101–118.

Zhu, L., Zhou, H., & Wang, Q. (2021). Compliance with regulatory requirements in banking: Enhancing customer trust and brand reputation. *Journal of Financial Regulation and Compliance*, *29*(1), 156–170.