



Effect of Electronic Banking on the Performance of Commercial Banks: A Case Study of a Commercial Bank Limited, Kenya

Benard Kuria

Management University of Africa

Email: bkuria@mua.ac.ke

ABSTRACT

This study investigates the effect of electronic banking on the performance of A Commercial Bank Limited, Kenya. Focusing on mobile banking, agency banking, automatic teller machines (ATM), and online banking, the research assesses how these technological advancements influence bank efficiency, customer satisfaction, and financial performance. Using a descriptive research design and a sample of 55 employees, findings revealed a strong positive correlation between e-banking services and enhanced bank performance. Mobile banking, agency banking, ATMs, and online banking collectively improved operational efficiency, reduced costs, and expanded customer access. Recommendations include greater investment in technology, continuous staff training, and customer education programs to maximize e-banking benefits.

Keywords: Electronic Banking, Mobile Banking, Agency Banking, ATM Banking, Online Banking, Commercial Bank, Kenya

1. Introduction

The banking industry has undergone significant transformation driven by technological innovations, particularly electronic banking (Koksal, 2021). E-banking enables customers to access financial services remotely, saving time and reducing transaction costs. In Kenya, commercial banks, including A Commercial Bank Limited, have adopted electronic platforms to remain competitive and improve service delivery (Waweru, 2020).

2. Literature Review

2.1 Theoretical Review

The study is underpinned by two main theories: the Technology Acceptance Model (TAM) and the Social Construction of Technology (SCOT) Theory.

- **Technology Acceptance Model (TAM):** Developed by Davis (1989), TAM posits that perceived ease of use and perceived usefulness are the primary factors influencing users' acceptance of technology. In the context of e-banking, customers are more likely to adopt mobile banking, internet banking, and other electronic services if they find them user-friendly and beneficial.
- **Social Construction of Technology (SCOT) Theory:** Advanced by Pinch and Bijker (1987), SCOT theory suggests that technology development and adoption are influenced by social processes and human actions rather than solely by technical factors. In the case of e-banking, customer behaviors, societal trends, and organizational culture significantly shape the design and use of electronic banking technologies.

These theoretical perspectives help explain the uptake of e-banking platforms by customers and financial institutions and provide a framework for understanding how technological innovations translate into improved organizational performance.

2.2 Empirical Review

Several empirical studies have explored the relationship between electronic banking and bank performance:

- **Koksal (2021)** conducted a quantitative study using a structured questionnaire distributed among 150 employees of Turkish commercial banks. The findings revealed that mobile banking services significantly improved operational efficiency and customer satisfaction. Regression analysis showed a positive correlation between mobile banking usage and financial performance metrics such as return on assets (ROA) and customer retention rates.

- **Waweru (2020)** employed a descriptive survey design targeting 20 Kenyan commercial banks to investigate online banking services. Data collected via structured questionnaires highlighted that online banking enhances accessibility and reduces transaction times. However, Waweru noted a recurring concern about cybersecurity risks, which partially hampers the full realization of online banking benefits.
- **Mwangi and Kihara (2021)** used a case study approach, collecting data from three leading banks in Nairobi through interviews and structured questionnaires. Their study confirmed that ATM banking increases customer convenience by providing 24/7 access to banking services. Findings showed that banks with a larger ATM network had higher customer satisfaction scores and improved operational efficiencies.
- **Gikandi and Bloor (2021)** adopted a mixed-method approach, combining surveys and interviews across 15 counties in Kenya. Their study found that agency banking promotes financial inclusion, particularly in rural areas. Quantitative results indicated a 25% increase in deposit mobilization attributed to agency outlets, while qualitative feedback highlighted the critical role of agent training and system reliability.
- **Musau and Muathe (2020)** conducted a longitudinal study over three years (2017–2019) using financial performance data from 35 commercial banks. Their analysis showed that while e-banking adoption positively impacts service delivery and financial outcomes, infrastructural challenges, customer trust issues, and inconsistent regulatory support are major impediments to maximizing e-banking benefits.

These studies collectively affirm that electronic banking positively influences bank performance by enhancing efficiency, reducing operational costs, improving customer experiences, and expanding market reach, albeit with certain risks that need mitigation.

3. Methodology

A descriptive research design was adopted. The target population was 106 employees, and a sample size of 55 respondents was determined using Nassiuma's formula. Data were collected via structured questionnaires and analyzed using descriptive statistics and regression analysis.

Regression Model:

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

Where:

Y = Performance of Commercial Banks

X1 = Mobile Banking, X2 = Agency Banking, X3 = ATM Banking, X4 = Online Banking

4. Findings and Discussion

4.1 Mobile Banking

The study found that 92% of respondents agreed that mobile banking significantly enhances bank performance. Mobile banking platforms allow customers to transact at their convenience without visiting physical branches, saving time and improving customer satisfaction (Koksal, 2021).

4.2 Agency Banking

Approximately 94% of respondents indicated that agency banking positively affects bank performance by extending banking services to previously underserved rural and peri-urban areas. Agency banking cuts costs associated with setting up full-service branches while maintaining a strong presence (Gikandi & Bloor, 2021).

4.3 ATM Banking

The analysis showed that 92% of respondents recognized the importance of ATM services in improving customer convenience and operational efficiency. ATMs provide 24/7 access to cash withdrawal and other services, significantly reducing congestion at banking halls (Mwangi & Kihara, 2021).

4.4 Online Banking

A significant 96% of respondents agreed that online banking contributes to enhanced bank performance. Internet banking platforms offer services like account management, loan applications, and financial advisory, although cybersecurity risks persist (Waweru, 2020).

4.5 General Findings

Overall, electronic banking has transformed customer experiences, reduced turnaround times for transactions, and improved the financial performance of A Commercial Bank Limited. However, cybersecurity threats, system downtimes, and insufficient customer awareness of digital platforms were identified as challenges needing further attention.

5. Conclusion

Electronic banking significantly enhances the performance of commercial banks by improving accessibility, reducing transaction costs, and boosting customer satisfaction. E-banking technologies such as mobile banking, agency banking, ATM banking, and online banking are vital for the future competitiveness of banks. Investment in digital platforms is indispensable for sustainable growth in the banking sector.

6. Recommendations

- Investment in Cybersecurity: Banks should strengthen cybersecurity frameworks to protect customer data and maintain trust in online platforms.
- Enhanced Customer Education: Regular campaigns and workshops should be organized to educate customers on the usage and benefits of electronic banking.
- Infrastructure Development: Expand the network of ATMs and agency banking outlets, especially in underserved regions.
- Continuous Staff Training: Train employees regularly on emerging e-banking technologies to improve service delivery.
- System Reliability Improvements: Invest in advanced IT infrastructure to minimize system downtimes and enhance transaction speeds.
- Innovative Product Development: Develop tailored e-banking products targeting specific market segments.
- Partnerships with Fintech Companies: Collaborate with fintech startups to leverage innovative solutions.
- Customer Feedback Mechanisms: Establish feedback systems to adapt services to evolving needs.
- Regulatory Compliance: Ensure continuous adherence to central bank guidelines and international best practices.

References

- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- Gikandi, J. W., & Bloor, C. (2021). Adoption and effectiveness of agency banking in Kenya. *International Journal of Financial Services Management*, 11(2), 156-172.
- Koksai, M. H. (2021). The impact of electronic banking on bank performance: Evidence from Turkey. *Journal of Financial Innovation*, 5(4), 245-263.
- Mwangi, M., & Kihara, A. (2021). Influence of ATM banking on customer satisfaction in commercial banks in Kenya. *International Journal of Business Management and Finance*, 9(1), 11-27.
- Musau, S., & Muathe, S. (2020). Critical success factors for the adoption of electronic banking in Kenya. *International Journal of Finance and Banking Research*, 6(1), 1-9.
- Pinch, T., & Bijker, W. E. (1987). The social construction of facts and artefacts: Or how the sociology of science and the sociology of technology might benefit each other. In W. E. Bijker, T. P. Hughes, & T. Pinch (Eds.), *The Social Construction of Technological Systems* (pp. 17-50). MIT Press.
- Waweru, N. M. (2020). Online banking adoption and financial performance of commercial banks in Kenya. *African Journal of Accounting, Auditing and Finance*, 9(2), 180-197.