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The Influence of e-banking on the Financial Performance of Kenyan Commercial Banks

8 **ABSTRACT**

Aims: The mobile and internet revolution has influenced creation and delivery of financial services leading to more innovative ways of linking customers and partners. Electronic Banking (e-banking) has opened up a new channel of banking resulting in new capabilities for banks as intermediaries. The research questions that the study sought to answer include, the role of mobile banking on the financial performance in Kenyan commercial banks, the effect of Electronic Funds Transfer (EFT) on the financial performance of Kenyan commercial banks.

Study design: The research adopted descriptive design with quantitative data approaches.

Place and Duration of Study: The target population was made up of 24 Kenyan Commercial Banks in the North Coast region of Kenya with a total of 240 employees. These banks are top tier lead brands listed in the stock exchange in the banking sector in Kenya between December 2022 and July 2023.

Methodology: Strata of top management (section heads), middle managers (branch managers and super agents) and operational employees (lower cadre employees & credit officers) provided 72 respondents. Both secondary and primary data sources were used with the self-administered questionnaires containing both open and closed ended questions. Data analysis included descriptive statistics, correlation and multiple regression on a model of $Y = 1.518 + 0.438 X_1 + 0.136 X_2 + \epsilon$.

Results: The correlation of the independent variables and the dependent variable was high and positive at 0.697 and 0.573 for mobile banking and Electronic Funds Transfer on financial performance respectively. The value of the adjusted R squared was found to be 0.654. The value of F-statistic was found to be 44.919 and its p-value 0.000. The regression coefficient of mobile banking was found to be 0.438 with a *t*-statistic value of 6.126.

The regression coefficient of EFT was found to be 0.136 with a *t*-statistic value of 6.182.

Conclusion: There is a strong relationship between mobile banking, EFT and financial performance of commercial banks in Kenya. M-banking has significantly reduced operational costs while EFT has increased the number of daily transactions. The study established that the popularity of m-banking has is due to the intensity of technology penetration of mobile phones to bank customers which has resulted in the number of customers registering for m-banking services to increase in the last five years. Commercial banks have also experienced increased ROA and growth in market share with adoption of e-banking.

9
10 *Keywords: [electronic banking, mobile banking, electronic fund transfer, financial performance, commercial banks]*

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13 **1. INTRODUCTION**

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15 **1.1. THE CONCEPT OF E-BANKING**

16 In recent years, the banking industry has tapped into opportunities offered by technology and leveraged its capabilities
17 into service. Banks have eschewed their conventional roles in favor of innovation, improvement, and the launch of new
18 service categories to meet the changing needs of their clientele. The operations of large commercial banks have seen a
19 great deal of innovation and diversification. Electronic Banking (e-banking) has opened up a new channel of banking
20 through the internet which has provided an avenue for new forms of business processes within value chains creating
21 more innovative ways of linking with customers and collaborating with partners. Financial services have been
22 revolutionized by the uptake of technology in both creation and delivery of service^[1, 2]. Electronic Banking (e-banking)
23 services include m-banking, Electronic Fund Transfer (EFT), Automatic Teller Machines (ATMs), use of debit cards to
24 make payments and the use of credit cards to acquire loan services^[3,4]. E-banking enables the customization of service
25 offerings while using technology based self-creative services like mobile banking and credit cards. M-banking is a term
26 used for performing balance checks, account transactions, payment credit transactions and other banking transactions
27 through a mobile device^[5]. Financial institutions can expand their customer base and increase their market share by
28 offering m-banking, which gives millions of consumers in emerging nations access to cellphones but no access to
29 standard banking services, a potential answer^[6]. Online banking gives banks a new and more effective electronic delivery
30 tool to complement their existing mobile phone transaction processing centers, ATMs, and electronic banking delivery
31 systems. In recent years, mobile banking has evolved from a basic information delivery channel to a more complex
32 banking transaction channel that grants access to many services. Due to mobile transactions, populations at the bottom of
33 the pyramid who previously had access to traditional financial services can now participate, improving financial inclusion.
34 Various countries have various rates of adoption of mobile banking services depending on factors like household type,
35 frequency of use, and rate of adoption^[7,8].

36 **1.1.1 E-Banking in Kenya**

38 The Economic Survey reports that the level of technology adoption in Kenya is high with 100% mobile penetration which
39 is marked by over 65 million simple identifier module (SIM) registration in a country with a population of 49 million^[9].
40 Kenya is marked as an Information and Communication Technology (ICT) ecosystem and is a technology hub together
41 with countries like South Africa, Ghana and Egypt which have resulted from the mobile revolution impacting fin-tech, ed-
42 tech and agri-tech^[10]. Supportive firms and industries that has accelerated the growth of fintech and adoption of these
43 technologies in financial services include mobile network operators, internet service providers, governance frameworks
44 and telcos bringing in expertise^[11]. The development of the internet has put pressure on banks' ability to act as payment
45 intermediates, leading to the creation of electronic fund transfers, or EFTs, which are structured electronic systems that
46 allow money to be transferred between bank accounts. Debit and credit card usage, ATM withdrawals, bill payments, and
47 online transactions are all included in the EFT services^[12]. One of the most popular EFT programs is direct deposit, which
48 entails transferring salary straight into employees' bank accounts, enabling EFT upon check deposits, and enabling
49 business owners to make EFTs by using an ATM cash advance for discretionary business spending. Low administrative
50 costs, increased productivity, more security, and simpler document storage are among the advantages of using EFT. The
51 indices for e-banking can be witnessed from three perspectives i.e. adoption and usage (e-banking usage frequency,
52 number of users, variety of transaction availed and channels used), system and technology (number and variety of
53 technology platforms used, system accessibility and performance, new methods and innovativeness) as well as customer
54 satisfaction and impact (willingness, loyalty, affordability and financial inclusion.^[13, 14]. Developments in e-banking have
55 therefore been driven by emerging business needs coupled with in mobile and internet technologies.

56 **1.2 THEORIES OF TECHNOLOGY INNOVATION**

58 The purpose of this study is to ascertain how e-banking affects Kenyan commercial banks' financial performance using
59 the Diffusion of Innovation Theory. Five essential features of innovations were recognized by Roger (1995): relative
60 advantage (profitability), compatibility, complexity, observability, and trialability^[15, 16]. The relative advantage of e-banking
61 as compared to traditional branch banking has been emphasized by various literature and these include economic
62 advantages, convenience, improved service levels and accessibility^[17, 18]. On the other hand, the Technology Acceptance
63 Model (TAM) is an extension of the Theory of Reasoned Action (TRA) model which was introduced by Devis in 1996^[19].
64 TAM replaced TRA with two technologically accepted features, perceived usefulness (PU) and perceived ease of use
65 (PEOU), which have been shown to be significant to the adoption of technologies like mobile banking. Numerous
66 researchers have used this model to analyze important issues pertaining to the acceptance and usage of mobile banking,
67 and many of them have produced positive results that showed a correlation between the incorporated variables, such as
68 PU and PEOU. This theory is primarily based on the idea of technology adoption. Comprehensive studies^[20] demonstrate
69 that the TAM model guided the investigation of consumer acceptance of mobile banking services by elucidating
70 relationships that exist between variables like PU and PEOU. The results showed that PU was more significant than the
71 other variables in influencing consumers to adopt mobile banking services, but that PEOU, perceived usefulness, and
72 perceived credibility all had an impact on the adoption of mobile banking.

73 **1.3 FINANCIAL PERFORMANCE & TECHNOLOGY PLATFORMS IN COMMERCIAL BANKS**

75 A company's ability to create income through the use of its available resources is measured by its financial performance
76 ^[21]. It's a term used to describe how a company's revenues fluctuate over time or between two or more companies in the
77 same sector. Key Performance Indicators (KPIs), sometimes referred to as financial performance indicators, are
78 quantitative metrics that are used to assess, monitor, and forecast a company's financial health. They serve as
79 instruments for evaluating the performance of the company in relation to other industry players, for both corporate insiders
80 (investors and research analysts) and outsiders (management and board members). Studies show that these KPIs
81 include gross profit, net profit, working capital, operating cash flow, current ratio, inventory turnover, debt-to-equity ratio,
82 quick ratio and return on equity ^[22,23,24]. Apart from risk and profitability, which are the two primary factors that determine
83 an organization's significance, the financial success of an organization can also be determined by its magnitude of
84 earnings and its economic outcome. Financial success in India's banking industry is influenced by a number of factors,
85 including ownership, age, size, and liquidity ^[25]. It is emphasized that factors that may affect financial performance and
86 may change on the face of crisis include leverage, productivity, solvency and assets turnover ^[26, 27].
87 Technology is increasingly being employed on service delivery in financial services. Various empirical studies have been
88 conducted to assess the effect of technology adoption on the performance of commercial banks. Earlier studies ^[28]
89 examined the performance of multichannel banks in Spain between 1994 and 2002 and found that there is higher
90 profitability for multichannel banks through increased commission, income, increased brokerage fees and gradually
91 reduced staffing levels, thereby concluding that internet channel was a complement to physical banking. A study that
92 assessed the performance of Italian banks found that the use of internet banking services as part of a multichannel
93 commercial strategy affected the banks' Return on Average Equity (RoAE) and Return on Average Assets (RoAA) ^[29]. It
94 was observed the change in financial performance of internet community banks in the United States and found that
95 internet adoption improved community banks profitability from increased revenues from deposit service charges ^[30]. Ibid
96 continues to explain that internet adoption was also associated with movement of deposits from checking accounts to
97 money market deposit account, increased use of brokered deposits and higher average wage rates for bank employees.
98 Regarding credit unions in Australia, studies found that internet banking was not an operating risk variable nor a
99 performance enhancing tool ^[31]. Despite the introduction of technologies for service delivery lowering both staff and
100 information technology costs after the first year of implementation ^[32,33], the case of Turkish banks reveal that after a
101 period of two years since the introduction of internet banking services, overall profitability decreased as a result of
102 increased competition and diminishing interest income ^[34,35]. On the other hand, data indicates that clients of US banks
103 mostly use branch banking services due to convenience, security concerns, and the inability to conduct direct in-person
104 encounters. Various researches show emerging trends in banking within developing economies include, universal banking
105 for performing all transactions in a single step, Point of Sale (POS) allowing payment for merchandise, satellite banking
106 enabling banks to have agents deep interior without opening branches, Electronic Clearing System easing transfer of
107 large transactions from institutions, Real Time Gross Settlement allowing the processing of payments at that time when
108 the instructions are received, Electronic Data Interchange for computer to computer exchange of documents and Data
109 Personalization System enabling banks to customize services based on customer profiles ^[36]. Financial performance on
110 the other hand has various indices with the financial institutions in Kenya using profitability (sales, gross, net profit margin
111 and earnings per share), liquidity (current and quick ratio), solvency (debt-to-equity and interest coverage ratio), efficiency
112 (inventory turnover, accounts receivable and operating expense ratio) and valuation (price-to-earnings and price-to-book
113 ratios). ^[37,38] Despite this data, banks are still investing in technology services as a cost-cutting measure, although it is
114 unclear how well these investments are working. Thus, it was crucial for a study to determine the effect of e-banking on
115 performance of the commercial banks in Kenya.
116

117 2. METHODOLOGY

118 2.1 RESEARCH DESIGN

119 The research adopted descriptive design which was suitable for demonstrating associations between variables. According
120 to Creswell and Johnson (2012) descriptive research design is a scientific method that involves observing and describing
121 the behavior of a subject without influencing it. Quantitative data approaches was used on case study basis in order to
122 obtain in-depth information that will be adequate to project results to the Kenyan commercial banks.
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125 2.2 TARGET POPULATION AND SAMPLE DESIGN

126 The target population was made up of 24 Kenyan Commercial Banks in the North Coast region of Kenya with a total of
127 240 employees. These banks are top tier lead brands listed in the stock exchange in the banking sector in Kenya.
128 Through stratified sampling, the study obtained respondents from three categories of employees i.e. top management
129 (section heads), middle managers (branch managers and super agents) and operational employees (lower cadre
130 employees & credit officers). The three respondent groups highly engage in strategic decision making regarding e-
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132 banking, tactical decisions and business processes pertaining e-banking services respectively. The sampling method
133 resulted in a total sample size of 72 i.e. 30% of the target population.
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135 2.3 DATA SOURCES & COLLECTION INSTRUMENTS

136 This study used both secondary and primary data sources. Secondary data aiming at building credibility included journals,
137 expert opinion magazines, books and industry reports. Primary data was obtained through questionnaires. The self-
138 administered questionnaires had both open and closed ended questions to allow collect both in-depth information and
139 assist in standardizing responses through a 5-point likert scale.
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141 2.4 DATA ANALYSIS

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143 Descriptive statistics i.e. means, mode and standard deviations Kurtosis were used with the help of Statistical Package for
144 Social Sciences (SPSS). At a confidence level of 94%, correlation analysis was employed to relate described variables.
145 Multiple regression was used to test variables on a regression model of:

$$146 Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon.$$

148 **Where:**

149 Y = the financial performance as dictated by e-banking;

150 β_0 = constant (coefficient of intercept) the financial performance independent of any existing factors;

151 $\beta_1 X_2$ = how much mobile banking as a component of e-banking influences financial performance;

152 $\beta_2 X_2$ = how much electronic fund transfer as a component of e-banking influences financial performance;

153 ϵ = the random error term accounting for all other variables that affect performance but not captured in the model.
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155
156 The regression analysis was to estimate the relationships between a dependent variable and two or more independent
157 variables in the study.
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160 3. RESULTS AND DISCUSSION

161 3.1 DESCRIPTIVE ANALYSIS

162 3.1.1 Mobile Banking

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166 The study sought to examine the respondent's level of agreement or disagreement on the various contribution of mobile
167 banking to bank operations. Table 1 presents the relevant results with, mean and standard deviations on a 5-point Likert
168 scale (where 1= strongly disagree and strongly agree=5). Results show that M-banking has minimized queues in banking
169 halls (4.36). This is a significant improvement compared to traditional banking, where waiting times can often be much
170 longer. The standard deviation of 0.829 minutes indicates that most customers experience waiting times within 0.829
171 minutes of the average. This means that the majority of customers are not waiting very long, regardless of whether they
172 use M-banking or traditional banking. Approximately 68% of customers wait between 3.53 and 5.19 minutes. This is a
173 relatively narrow range, which suggests that M-banking is providing a consistent and reliable experience for most
174 customers. The 95% of customers wait between 2.70 and 6.02 minutes. This even wider range suggests that even
175 customers who experience slightly longer waiting times are still generally satisfied with M-banking. M-banking is
176 convenient to customers and banks (4.35). The last five years has registered a rise in number of registered customers
177 (4.37) while the operational cost in banks has resulted from introduction of mobile banking (4.33). Respondents also
178 agreed that m-banking offers wider services to customers (4.351). Based on average statistics, it may be inferred that
179 bank clients are using mobile banking more frequently. These results are represented in Table 1.
180

181 **Table 1: Mobile Banking**

Contribution of Mobile Banking to Bank Operations	Mean	Std deviation
M-banking has minimized queues in banking halls	4.36	0.829
M-banking is convenient to customers and banks	4.35	0.863

The last five years has registered a rise in number of registered customers	4.37	0.864
Operational cost in banks has resulted from introduction of mobile banking	4.33	0.957
m-banking offers wider services to customers	4.351	0.991

3.1.2 Electronic Fund Transfer

The study sought to examine the participant's level of agreeing or disagreeing on the various contribution of EFT to bank processes. Table 2 presents the related results indicating that on a scale of 1 to 5 (where 1= strongly disagree and strongly agree=5) the means and standard deviations were; linkage of bank with other global banks through EFT (4.23). This indicates a strong level of connectivity and integration between the bank and the global EFT network. The standard deviation of 0.253 suggests that most banks have linkage scores within 0.253 units of the average. This means that the data is relatively consistent, and there are not a significant number of outliers with vastly different linkage scores. Approximately 68% of banks have linkage scores between 3.98 and 4.48 which further confirms the consistency of the data and suggests that the majority of banks have a similar level of linkage. The 95% of banks have linkage scores between 3.72 and 4.74. This even wider range indicates that even banks with slightly lower or higher linkage scores are still generally well-connected to the EFT network. EFT as a secure- financial transaction method (4.21), increase in number of daily transactions due to EFT (4.25) and finally, rise in number of customers from EFT (4.24). These statistics are summarized in Table 2.

Table 2: Electronic Funds Transfer

Contribution of EFT to Bank Processes	Mean	Std. Deviation
Linkage of bank with other global banks through EFT	4.23	0.253
EFT as a secure- financial transaction method	4.21	0.198
Increase in number of daily transactions due to EFT	4.25	0.508
Rise in number of customers from EFT	4.24	0.284

3.1.3 Financial Performance

The study sought to examine the participant's level of agreeing or disagreeing on the influence of e-banking on financial performance. Table 3 presents the relevant results which show that on a scale of 1 to 5 (where 1= strongly disagree and strongly agree=5) the means and standard deviations were that there has been a rise in opening of new accounts (4.42), growth in volume of bank sales since adoption of self-service technologies (4.40), expansion of market share by the bank (4.44), growth in in return on assets (4.41) and finally digital platforms enhance returns on assets (4.45). Considering a return on assets with a normal distribution for the ROA growth data for example, the mean of 4.41 indicates the average growth rate in ROA across the observed banks. Indicating that, on average, banks experienced a 4.41% increase in their ROA during the analyzed period which suggests a positive average growth in ROA for the observed banks. The standard deviation of 0.772 quantifies the variability in ROA growth among the banks suggesting that most banks ROA growth rates fall within 0.772 units (above or below) of the average of 4.41%. Assuming in a normal distribution, we can estimate the range within which most ROA growth rates lie; 68% of banks: ROA growth likely falls between 3.638% (mean - std. dev.) and 5.182% (mean + std. dev.), 95% of banks: ROA growth likely falls between 2.866% (mean - 2 * std. dev.) and 5.954% (mean + 2 * std. dev.) indicates moderate variability in ROA growth, with most banks within a reasonable range of the average. Banks with ROA growth rates outside these ranges, either significantly lower than 2.866% or much higher than 5.954%, are considered outliers. These banks might have unique factors influencing their ROA growth strategies or circumstances, implying that the majority of banks exhibit ROA growth rates within predictable bounds. These results show that in the last three years since the introduction of e-banking in commercial banks, there has been an increase in the financial performance as summarized in Table 3.

Table 3: Financial Performance

Influence of e-banking on Financial Performance in the last three years (2022, 2021,2020)	Mean	Std. Deviation
Rise in opening of new accounts	4.42	0.914
Growth in volume of bank sales since adoption of self-service technologies	4.40	0.850
Expansion of market share by the bank	4.44	0.811

Growth in in return on assets	4.41	0.772
Digital platforms enhance returns on assets	4.45	0.799

3.2 CORRELATION ANALYSIS

Strong and positive correlations, measuring 0.697 and 0.573, respectively, were found between the independent factors and the dependent variable regarding the effects of mobile banking and electronic funds transfers on financial performance. Since the level of multi-co-linearity between the independent variables was not particularly high, the influence of each variable in the regression model could be evaluated with low multi-colinearity. These results are presented in Table 4.

Table 4: Correlation Analysis

		Financial performance	mobile banking	Electronics fund transfer
Financial performance	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	94		
Mobile Banking	Pearson Correlation	0.697**	1	
	Sig. (2-tailed)	.000		
	N	94	94	
Electronic Fund Transfer	Pearson Correlation	0.573**	0.394**	1
	Sig. (2-tailed)	.000	.000	
	N	94	94	94

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

3.2.1 Model Summary

Overall, Table 5's corrected R squared score of 0.654 indicated that the model did a good job of fitting the data. This demonstrates the close relationship between financial performance, mobile banking, and EFT. This demonstrates that, when all factors are considered, the performance of Kenya's commercial banks differs by 65.4%. This description is presented in Table 5.

Table 5: Model summary

Model	R	R Square	Adjusted R Square
1	0.818	0.669	0.654

a. Predictors: (Constant), mobile banking, Electronic Funds Transfer,
b. Dependent Variable: Financial Performance

3.2.1 Analysis of Variance

The results in Table 6 indicated that the overall model was a good fit since the value of F-statistic was found to be 44.919 and its p-value was found to be 0.000 which is less than the critical value of 0.05. This is summarized in Table 6.

Table 6: Analysis of variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	62.193	4	15.548	44.919	0.000
	Residual	30.807	89	.346		
	Total	93.000	93			

a. Dependent Variable: Financial Performance
b. Predictors: (Constant), mobile banking, Electronic Funds Transfer

3.3 REGRESSION COEFFICIENTS

The fitted regression model of $Y = 1.518 + 0.438 X_1 + 0.136 X_2 + \epsilon$ was used to derive the regression coefficients. Where; Y = Operations Performance, X1 = mobile banking, X2 = Electronic Funds Transfer, ϵ = Error Term. The regression statistics are presented in Table 7.

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Table 7: Regression statistics

Model	Coefficients	Std. Error	t-statistic	probability value
(Constant)	1.518	0.201	7.552	0.000
Mobile banking	0.438	0.072	6.126	0.000
Electronic Funds Transfer	0.136	0.022	6.182	0.000

253 Standard Error 0.201 0.072 0.022

254 *t*-Statistics 7.552 6.126 6.182255 *p*-value 0.000 0.000 0.000256 **3.3.1 Mobile Banking**

257 The regression coefficient for mobile banking was discovered to be 0.438, meaning that a one-unit increase in m-banking
 258 impacts the bank's performance by an additional 0.438 units, all other factors in the model being held constant.
 259 Additionally positive is the coefficient's value, which indicates that m-banking and bank financial performance are
 260 positively correlated. With a t-statistic value of 6.126, the coefficient was statistically significant and positive. Additionally, it
 261 was discovered that the variable was the most influencing factor on Kenyan banks' performance. These results are shown
 262 in Table 7.

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264 **3.2.1 Electronic Fund Transfer**

265 The regression coefficient of EFT was determined to be 0.136 based on Table 7. This figure demonstrates that, when all
 266 other model variables are held constant, a one-unit increase in EFT results in a 0.136-unit improvement in bank
 267 performance. The positive value of the coefficient indicates a favorable correlation between the performance of banks and
 268 the adoption of EFTs. With a t-statistic value of 6.182, the coefficient was statistically significant and positive. This is
 269 summarized on Table7.

270

271 **4. CONCLUSION**

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273 Conclusions for this study were that, e-banking in Kenya has got a significant influence on the financial performance of
 274 commercial banks in Kenya. Strategies for investing on e-banking by commercial banks in Kenya is therefore a worthy
 275 undertaking that enhances their financial performance. M-banking and EFT are the most common technologies employed
 276 under e-banking and have a significant influence on commercial bank financial performance. The study established that
 277 the popularity of m-banking has is due to the intensity of technology penetration of mobile phones to bank customers
 278 which has resulted in the number of customers registering for m-banking services to increase in the last five years. These
 279 findings supports literatures (Muthoka NI, Oluoch, Njoroge MN, Mugambis, Kamau JG, Senaji) that emphasize how that
 280 the major business drivers that have significantly contributed towards mobile banking evolution include customer
 281 experience and cost saving in banking operations. Customers may access services including reading bank statements,
 282 checking account balances, transferring funds, receiving alerts about account limits, and paying multiple utility bills
 283 remotely thanks to mobile banking technology. EFT as a form of e-banking enables transfer of funds from one bank
 284 account to another thereby paving way for paperless transactions making paper bills, checks and stamps unnecessary
 285 while significantly increasing the number of daily transactions. Many studies confirm that benefits of EFT have been
 286 recognized as lowered administrative and transactional fees, cost cutting, enhanced security and easier trail and storage
 287 of documents. Commercial banks have experienced increased ROA and growth in market share with adoption of e-
 288 banking. It is therefore vital for commercial banks in Kenya to invest in e-banking supported operations as they improve
 289 on the financial performance of the banks.

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293

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296

COMPETING INTERESTS

We the authors have declared that no competing interests exist..

AUTHORS' CONTRIBUTIONS

Author 1 & 3 identified the area of study and reviewed literature and thereafter designed the data collection instruments. Author 2 tested the statistical methods and tools used and compiled the manuscript for publishing. All authors collected data, read and approved the final manuscript."

CONSENT (WHERE EVER APPLICABLE)

No Consent was required for this research.

ETHICAL APPROVAL (WHERE EVER APPLICABLE)

Ethical considerations were made by the researchers in the selection of respondents and the design of the data collection instruments.

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405 ABBREVIATIONS

406 EFT : Electronic Fund Transfer

407 ATM : Automated Teller Machines
408 ROA : Return on Assets
409 ROE : Return on Equity
410 ROAA : Return on Average Asset
411 ROAE : Return On Average Equity
412 CBK : Central Bank of Kenya
413 IB : Internet Banking
414 ICT : Information and Communication Technology
415 IT : Information Technology
416 TAM : Technology Acceptance Model
417 TRA : Theory of Reasoned Action
418 PoS : Point of Sale
419 PU : Perceived Usefulness
420 PEOU : Perceived Ease Of Use
421 SPSS : Statistical Package for Social Science
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