The Role of Digital Banking Services on Commercial Banks Performance in Somalia: A Descriptive and OLS Approach

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Received: August 11, 2022 Accepted: September 27, 2022 Online Published: October 12, 2022

doi:10.5430/ijfr.v13n4p16 URL: https://doi.org/10.5430/ijfr.v13n4p16

Abstract

The main objective of this study is to examine the role of digital banking services on commercial banks' performance in Somalia. A descriptive research design was used in this study to illustrate the relationship between variables. The study selected 300 participants using stratified random sampling. The study employed the Kobo-collect tool to collect data from the field. SPSS v28 and Eviews12 data analysis tools were employed in this study. The ADF test results show that all variables are stationary in the first difference with a constant and trend for each of the three critical levels. Pearson chi-square statistics showed that the association between explanatory variables and commercial banking performance is statistically significant. Descriptive statistics showed that the skewness and kurtosis of the normal distribution of probability are best to fit and close to zero using the Jarque-Bera test. Positive kurtosis values suggest a peaked distribution with long, fatty tails, and it proposes that a large proportion of numbers are concentrated in its tails rather than its centre. The regression result gives the impression that the explanatory variables determine 86% of the overall variance in commercial banks' performance. The correlation results showed a strong and significant positive correlation between digital banking service delivery and commercial banks' performance in Mogadishu, Somalia.

Keywords: digital banking, payments infrastructure, customer's adoption and commercial banks' performance

1. Introduction

The growth of technology has led to the digitization of the planet. The financial sector's development and competitiveness may be attributed to technology's role in digitalization. As a result, conventional financial institutions, such as banks are challenged (Gerlach & Lutz, 2021). The financial industry has seen drastic transformations due to technological advancements, making financial services more readily available. Digital money, online banking, digital payment systems, e-finance, e-wallets, and more are transforming the financial industry as it moves from fiat currency to the digital era. The financial industry is increasingly being transformed by these constant advances (Palmié et al., 2020). The new digital drifts are largely responsible for the digital transformation of financial institutions, which has led to significant changes in economic systems (Khan et al., 2021).

Banking is only one of many industries where technology has made or broken people's lives and careers. Astonishing technical advancements have taken place during the previous several decades. A lasting imprint on anything and everything that the human mind can conceive. It is already widely known that the advancement of technology in the banking industry gave rise to payment systems. To put it simply, digital banking uses technology to make financial transactions easier. It encompasses internet banking, electronic banking, and mobile banking, commonly used phrases (Sardana & Singhania, 2018). This study looks at how digital banking services affect Somalia's financial institutions' financial stability and customer satisfaction. With the advent of digital banking, individuals and businesses may now examine transactions, download statements, and conduct financial transactions without physically visiting a bank (Boniface & Ambrose, 2015). In the recent decade, Kenya's financial services industry has dramatically shifted toward digitalization and financial inclusion. M-PESA, Agency Banking, Online Banking, ATM credit/debit cards, and M-Shwari have been recorded as notable digital service sector innovations (Heyer & King, 2015). Transformative changes have been occurring in the banking industry. Innovations in information technology are driving this banking industry transformation. Today's global change curve of electronic banking in Kenya is centered on information and communication technology. In light of this, this study examined the relationship

between Kenya's banking system and e-banking. The researchers used both descriptive and inferential statistics to interpret the data. The study discovered that online banking is strongly and marginally impacted by the Kenyan banking industry's asset returns. As a result, e-banking is associated with improved bank performance (Aduda & Kingoo, 2012).

Somalia's central bank and banking system were wiped out when the Central Government of Somalia collapsed in 1991. After 18 years of operation, the Central Bank of Somalia reopened its offices in Mogadishu and Baidoa on December 2006 to manage the government's annual budget and pay its personnel salaries (AfDB, 2010). Mohamed & Nor (2021) determined how EVC-PLUS services contribute to financial inclusion via mobile money services. The study examined how mobile money users behaved using UTAUT, or the Unified Theory of Acceptance and Use of Technology. Access to financial services, the quality of financial goods, the use of financial services, and the well-being of financial products were all considered when calculating financial inclusion. Mobile money, components of financial inclusion, and financial inclusion as a dependent variable are examined using a structural equation model. The study estimated parameters consist of a sample of 245 people and gathered their responses. The study used descriptive and inferential statistics to examine the results. The study observed that the gender gap in financial inclusion is relatively small and that women had the same access as males. The quality of the financial goods and services as well as the ease of obtaining them, are all closely linked to financial inclusion, which is mostly determined by the well-being of the financial products themselves.

Digital banking is at the forefront of commercial banks' efforts to expand their networks, decrease costs, compete with their rivals, and improve performance. Banks have rolled out an agency and digital banking service via the national payment system facilitated by the Central Bank of Somalia. This has made it possible for banks to contract third parties to provide banking services such as deposits and withdrawals for consumers. Despite all this increased digitalization, some banks have underperformed, been placed under statutory control, or shut their doors completely (Mutua, 2013). Digital financial services (DFS) studies have been conducted all over the world with mixed results, with DFS having a significant effect on financial performance (Mohamed, 2019; Waiganjo, 2018; Too, Ayuma & Ambrose, 2016); Mabwai, 2016; Ngaruiya, Bosire & Kamau, 2014) and contradictory findings of insignificant or negative effects (Mohamed, 2019; Waiganjo, 2018; Too, Ayuma & Am (Michelle, 2016; Dzombo, Kilika & Maingi, 2018; Ali, 2018).

Result discrepancies might be explained by regional and author-specific variations in construct definition, which necessitates more empirical investigation on digital service delivery platforms, which are more globally standardized than service goods. Due to a lack of relevant evidence on the topic of digital banking and its impact on Somalia's commercial banks' financial performance, the impacts of digital banking on that country's banks' performance remain unclear. Digital banking in Somalia has not been extensively recorded, and this research is addressed to fill this gap.

2. Literature Review

The unstable money demand connection in the United States has been related to much theoretical research. As Gurley and Shaw (1955, I960) argue, the advent of money alternatives and other financial market upheavals will significantly increase the interest elasticity of money demand. According to them, the variety of services provided by monetary and non-monetary financial assets makes them more competitive. As a result, interest-bearing money substitutes can increase the value of monetary assets as a result of increased availability. Explained that the function of financial intermediaries is critical to credit markets because they lower the cost of transferring funds between depositors who are less knowledgeable and harder to judge, resulting in more efficient use of resources if a borrower can't get a loan from a bank or another intermediary for a better rate, then banks and other intermediaries (Mago, 2014). Contrary to popular belief, long-term causal linkages between political, legal, economic, and financial institutions and markets are difficult to establish and appear to depend on research methods. Moreover, when it comes to financing, small businesses may have a more challenging time finding nonbank options due to economies of scale in the lending industry, making them more dependent on bank loans. Financial intermediation has two significant advantages: it boosts the amount of money that can be invested and saved and improves the economy's ability to allocate funds efficiently (Kiprop, Kalio & Kiprop, 2015). Despite the liberalization and information technology-driven globalization of financial services and fierce pricing rivalry, the financial services industry continues to thrive. An important part of this topic may be found in the idea of financial intermediation, which asserts that banks are just financial intermediaries like other non-bank financial entities. To generate liquidity, banks borrow from depositors for short periods and lend to borrowers for extended periods (Kathuo, Rotich & Anyango, 2015). Commercial banks can receive money from deposits and lend it to individuals via the digital platform by employing digital banking.

The diffusion of innovations theory was developed by Rodgers (1962) and discussed how consumers adopt innovations as time progresses. According to the idea, commercial banks using electronic banking channels like ATMs to increase financial inclusion are motivated by forces explained by the theory. This hypothesis further explains end users' activities in adopting new technologies like electronic banking in a financial institution. Consumers may be divided into five groups according to how inventive they are, as shown by the graph showing that those who take advantage of new technologies assume a bell-shaped scatter curve (Rodgers, 1962). Rogers classed his clientele as early adopters, primary majority, and late majority.

Commercial banks employ digital banking technology as financial intermediaries to expand their network and get cheaper deposits. They may then lend at a higher interest rate to generate a more significant profit. Transactions are anytime and whenever consumers choose, as well as a desire by firms to reduce operational expenses. According to Scholtens and Wensveen (2003), financial intermediaries' principal role is to build personalized financial commodities for their customers. In the end, this hypothesis influenced all the study's factors. Individual expectations and behaviours may be traced to some aspects of communities and cultures, such as inflation, national income and productivity gains, stocks and prices of different capital, cultural values, and social norms (Kithaka, 2014). Customers' desire to perform transactions whenever and wherever they want and organizations' desire to reduce operational expenses have been the driving forces behind digital banking. As a result of these needs, modern economics theory describes these characteristics in detail. The study's third independent variable, the price of digital banking services, was predicated on this concept.

Bochaberi & Job (2021) evaluated the impact of mobile banking on commercial banks' performance because transactions via mobile banking are significantly less expensive than those via a branch teller. Two methods were utilized to collect information: a questionnaire and audited financial statements. The data was analyzed using means, percentages, and standard deviations. Researchers discovered that mobile banking significantly impacts the four central commercial banks operating in Kenya. Customers can rely on the service, which enables banks to access unbanked individuals is safe and inexpensive and efficient, according to the survey. Commercial banks are critical to a country's economic growth, but they can only play this role if they are well-capitalized and well-managed. Since the advent of digital banking technology, commercial banks have increased financial performance by boosting retail and corporate banking activities with this technology. It was the goal of this research to determine how digital banking technology developments impact the financial performance of commercial banks. The study used a descriptive survey approach and had three main goals: determining the impact of digital banking technology, turnaround time, and digital banking technology expenses on financial performance. Data about 42 commercial banks in Kenya was gathered using a questionnaire that was sent out to the target demographic. As a result of the research, pie charts, bar graphs, and frequency tables were used to show the findings. Digital banking technology advancements have had a favourable impact on Kenyan commercial banks' financial performance, according to the study's results and conclusions (Otieno & Ndede, 2020). Customers' trust and contentment have been restored because of mobile banking's transactional convenience, time savings, quick transaction alerting and cost savings. Additionally, Adewoye (2013) studied the impact of mobile banking on Nigerian commercial banks' service performance. Senior and junior bank workers were asked to fill out (140) questionnaires as part of the study. Frequency tables, percentages, and mean scores were used to examine the data. Non-parametric test statistics Chi-square was utilized instead using STATA 10 data analysis package and statistical software to test hypotheses stated to assess the influence of mobile banking on service delivery and the link between mobile banking and service delivery in the sampled banks.

Abdikarin et al. (2022) looked at how ATMs and mobile banking might help Somali commercial banks achieve greater financial inclusion. For this study, six commercial banks in Somalia that had successfully implemented electronic banking were targeted using a descriptive survey approach. Respondents were bank personnel, such as managers or officials of the institutions they worked for. Primary data on ATMs, mobile banking, and customer deposits were gathered using a form. Analyses were carried out utilizing SPSS version 24 (descriptive statistics, such as means and standard deviations) as well as inferential statistics (such as correlations and inferences) (correlation and regression analysis). According to the research, automated teller machine and mobile banking are key factors in Somali commercial banks' financial inclusion. As a result, commercial banks' use of digital transactions is critical to financial inclusion. Kenya's banking industry has decreased, while digital financial services delivery boosts bank profitability and client happiness regardless of banking hours and locations. Mobile financial services have a significant positive link with financial success, as do digital financial information services. Variability in research structures compared to geographies and the author's intentions to explain the different outcomes of global studies on digital financial services and bank performance. This study examined how digital financial services affect

commercial banks in Kisumu County. The study used a descriptive research approach, 172 bank managers, and a census survey. Using a standardized questionnaire, primary data was gathered and analyzed using descriptive and correlational statistics (Okode, 2021). The profitability of Nigerian commercial banks was examined by Eze and Steven (2016), who looked at the connection between various e-banking channels and those institutions' bottom lines. The theories were tested using the proven ECM model (as determined by residual diagnostics). Using digital transactions has a significant impact on the profitability of commercial banks, according to the data. To ensure these services are properly implemented, regulators and banks should work together to provide a supportive framework and regulatory system. Commercial banks, for example, should step up their initiatives to raise the number of ATMs they have and improve their efficiency.

In terms of profitability, efficiency, or credit quality, some research conducted does not provide evidence of significant differences in the performance of commercial banks as a result of the delivery of internet banking services in comparison to commercial, financial institutions that do not offer such services. Similarly, some studies concluded that digital banking technology improvements positively influenced commercial banks' financial performance. But do not categorise the degree to which the digitalization of commercial banks will impact financial performance. While other literature demonstrated financial inclusion in Somali commercial banks was strongly influenced by ATM and mobile banking and did not examine the other service instruments that support payment and transaction methods. Furthermore, previous studies did not show that the internet distribution route was either beneficial or detrimental to banks. For these reasons, this study aims to discover how digital banking services in Somalia affect commercial banks' performance regarding customer happiness, relationship building, cost savings, and transactional comfortability.

3. Methodology

A research design is a framework and glue that keeps the many components of a research project together. A descriptive research design was used in this study to illustrate the relationship between variables (The role of digital banking services on commercial banks' performance in Somalia). The study selected a target population of 1200 respondents from all prime banks' customers. In the study, a self-administered questionnaire technique was employed. Simple and skilful random selection was utilized to pick each responder for the study. The sample for this study only included those customers who often interact with installations and inquiries related to digital banking services. This study selected 300 participants using stratified random sampling because of its heterogeneity. The study employed Slovin's formulas to determine the sample size.

$$n = \frac{N}{1+Ne^2} \quad \frac{1200}{1+1200(0.05^2)} = 300$$

Where: n is the required sample size; N is the target population; and e is the level of significance, which is equal to 0.05 or 5%. The study primarily gathered data through the use of questionnaires for this study. This technique of research was selected for the survey because it is the most valid way of research and the most dependable. In this investigation, the questionnaire instrument was utilized by employing the Kobo collect tool. The instrument of the questionnaire is composed of three parts: the profile of respondents, the role of digital banking services on commercial bank's performance in Somalia, and the pilot study results.

3.1 Data Analysis Technique

In this study, descriptive and inferential statistics were both used to examine the data. The data analysis method followed the four stages of the traditional research process data purification, reduction, differentiation, and explanation. To detect errors, data needed to be cleaned using editing, coding, and tabulation. The study analysis was done using the Statistical Package for Social Science (SPSS v28) program and Eviews12 statistics software. Descriptive statistics were calculated using frequency distributions, percentiles, standard deviation and average scores for each specified objective statement. Multiple regression analysis and inferential tests of the Pearson correlation coefficient were carried out to determine the relationship between the variables. The Pearson correlation coefficient was utilized to evaluate the role of digital banking services on commercial banks' performance in Somalia. The correlations were examined using Pearson's correlation coefficient. The correlation coefficient indicates the strength of the linear connection between two variables, which ranges from "-1 to +1". A correlation of roughly 1 indicates a strong positive connection. While a correlation of 0 shows no association between the two variables, one closer to "-1" reveals a substantial negative association.

3.2 Analytical Model

The study employed an econometric technique of Ordinary Least Squares (OLS) using computed variables from the

questionnaire survey.

$$CBP = f(DBSD, API, CADB) \quad (1)$$

$$logCBP = \beta_0 + \beta_1 logDBSD + \beta_2 logAPI + \beta_3 logCADB + \varepsilon \quad (2)$$

Where CBP is Commercial Bank Performance (dependent variable), β_0 is a constant; β_1 to β_3 are slope coefficients that measure the optimal performance of banks, the log is natural logarithms; DBSD, API, and CADB are Digital Banking Service Delivery, Accessibility of Payments Infrastructure and Customer's adoption of digital banking, respectively are (independent variables), and $\boldsymbol{\varepsilon}$ is the error term or residual (other explanatory variables not mentioned in the model). Furthermore, hypotheses about the relative relevance of an independent variable in relation to a dependent variable are tested using multiple regression and correlation with a significance threshold of 95% confidence level or a p-value of 5%.

4. Empirical Analysis

The sample size of this study was 300 respondents. Those filled and returned questionnaires were 300 respondents making a response rate of **100%**. This means that the response rate for this study was excellent and, therefore, enough for data analysis and interpretation. The majority of the study respondents were male representing (**68%**) of the study participants, while female's respondent of the study participants represents (**32%**). Therefore, the study recognized that most digital banking service users in Mogadishu are male. Additionally, most of the study participants were aged between (18-30) representing (**74%**) of the study participants. This shows digital banking services users in Mogadishu aged 18-30 years. The study revealed that the majority of study survey respondents are bachelor's degree holders representing (**66%**) of the study participants. In comparison (**28%**) of the study, participants have postgraduate degrees, meaning that most digital banking service users in Mogadishu are undergraduates. Finally, the study recognized the study participants are experiencing in using of digital banking services between 1-3 years, representing (**34%**) of the participants, while the second group majority of the participants are experiencing it between 3-6 years, expressing (**28%**) of the study participants.

4.1 Reliability Analysis

Table 1. Reliability Results

Variable	Number of Items	Cronbach's Alpha
Digital Banking Service Delivery	7	0.747498
Accessibility of Payments Infrastructure	7	0.801910
Customer's Adoption of Digital Banking	7	0.793418
Commercial Banks Performance	6	0.788244
Overall Cronbach's Alpha	27	.929

As Table 1 indicates, Cronbach's Alpha was used to determine the internal reliability of the questionnaire used in this study. Values range between 0 and 1.0; while 1.0 indicates perfect reliability, the value of 0.70 is deemed the lower level of acceptability according to Hair, Black, Barry, Anderson, & Tatham (2006) (Kaveh, 2014). The reliability statistic for each of the identified factors is presented in Table 1 digital banking service delivery had a coefficient of **0.75**, accessibility of payments infrastructure had a coefficient of **0.80**, customer's adoption of digital banking had a coefficient of **0.79**, and commercial banks performance had a coefficient of **0.79**. Table 1 also, indicates that each of the items relates to the identified factor and that the coefficient alpha value of the identified factor will not increase if some of the items were left out. Therefore, the results indicate that the questionnaire used in this study had a high level of reliability.

4.2 Descriptive Statistics

Table 2. Descriptive Results

	API	CAD	CBP	DBSD
Mean	24.42000	25.13000	21.38667	24.77667
Median	25.00000	25.00000	22.00000	25.00000
Maximum	35.00000	35.00000	30.00000	35.00000
Minimum	7.000000	7.000000	6.000000	9.000000
Std. Dev.	5.343417	5.387937	4.789602	4.982926
Skewness	-0.617573	-0.453102	-0.636383	-0.349065
Kurtosis	3.805970	3.513605	3.590763	2.833165
Jarque-Bera	27.18966	13.56245	24.61168	6.440228
Probability	0.000001	0.001135	0.000005	0.039951
Sum	7326.000	7539.000	6416.000	7433.000
Sum Sq. Dev.	8537.080	8679.930	6859.147	7424.037
Observations	300	300	300	300

The skewness and kurtosis of the normal distribution found that probability is best to fit and close zero using the Jarque-Bera test. As shown in Table 2 above, the mean of the study variables (DBSD, CAD, API and CBP) exhibit a substantially positive value but are smaller than the median of the study variables, which suggests that the distribution is negatively skewed and has a larger tail on the left side. A large positive value for kurtosis indicates that leptokurtic has extremely long and narrow tails, indicating that outliers are more likely. Positive kurtosis values suggest a peaked distribution with long, fatty tails. The distribution has a high positive kurtosis. It proposes that a large proportion of numbers are concentrated in its tails rather than its centre.

4.3 Unit Root Test

Table 3. Unit Root Results

	1st Difference ADF test statistic constant with the trend				
Variables	1%	5%	10%	t-statistics	Pro
API	-3.989689	-3.425237	-3.135737	-12.38965	0.0000
CAD	-3.989689	-3.425237	-3.135737	-12.13401	0.0000
DBSD	-3.989689	-3.425237	-3.135737	-11.88744	0.0000
CBP	-3.989689	-3.425237	-3.135737	-13.22614	0.0000

As shown in Table 3 above, the ADF test results show that the variables of API, CAD, DBSD and CBP are stationary in the first difference with a constant and trend for each of the three critical levels of (1%, 5%, and 10%), respectively. Because of the stationary nature of the data, the study decided to utilize a first-differenced model for the investigation. Since the first difference caused all variables to become stationary, it is essential to evaluate the relationship of the variables through ordinary least squares.

4.4 Pearson Chi-Square Analysis

Table 4. Pearson Chi-Square Result

	Value	Likelihood Ratio	Linear-by-Linear Association	Asymptotic Significance
DBSD & CBP	1339.21*	557.81	133.92	<0.001
CAD & CBP	1269.54*	620.21	173.33	<0.001
API & CBP	1649.97*	715.94	239.47	<0.001

*572 cells (100.0%) have expected count less than 5. The minimum expected count is .00.

Table 4 above shows that the Pearson chi-square statistics for digital banking service delivery and commercial banking performance is 1339.21, the likelihood chi-square statistic is 557.81, and the p-value is (**0.001**). Therefore, the association between digital banking service delivery and commercial banking performance is statistically significant. Additionally, the Pearson chi-square statistic for customer's adoption of digital banking and commercial banking performance is 1269.54, the likelihood chi-square statistic is 620.21, and the p-value is (**0.001**). Also, the association customer's adoption of digital banking and commercial banking performance is statistically significant. Finally, the Pearson chi-square statistic for accessibility of payments infrastructure and commercial banking performance is 1649.97, the likelihood chi-square statistic is 715.94, and the p-value is (**0.001**). Also, the association between the accessibility of payment infrastructure and commercial banking performance is statistically significant.

4.5 Regression Analysis

Table 5. Regression Results

Dependent Variable: CBP

Method: Least Squares Included observations: 300

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LogDBSD	0.018995	0.037889	0.501338	0.6165
LogCAD	0.295469	0.033257	8.884513	0.0000
LogAPI	0.725608	0.034146	21.24991	0.0000
C	-0.270573	0.088915	-3.043052	0.0026
R-squared	0.863214	Mean dependent var		21.38667
Adjusted R-squared	0.861828	S.D. dependent var		4.789602
S.E. of regression	1.856909	Akaike info criterion		4.088947
Sum squared resid	1020.641	Schwarz criterion		4.138331
Log likelihood	-609.3420	Hannan-Quinn criter		4.108710
F-statistic	564.4161	Durbin-Watson stat		2.028506
Prob(F-statistic)	0.000000			

Table 5 shows that the probability value of (LogDBSD) has portrayed (**0.6165**), above 5%, and the coefficient is positive, while the t-test is significant. The result also showed that a percentage change in digital banking service delivery would increase commercial bank performance by (**2%**). Additionally, the probability value of (logCAD) showed (**0.0000**), indicating a solid positive relationship between customer's adoption of digital banking and commercial bank performance. Also, the t-statistics are significant and above the critical value. Therefore, a percentage change in customer's adoption of digital banking will increase commercial bank performance by (**30%**). In addition, the probability value of (logAPI) showed (**0.0000**), indicating a solid positive relationship between the

accessibility of payments infrastructure and commercial bank performance. Also, the t-statistics are significant and above the critical value. Therefore, a percentage change in the accessibility of payments infrastructure will increase the commercial bank performance by (**73%**). Overall the p-value of the model is highly significant. Table 5 also explains the OLS estimation results, and the findings revealed that the coefficient of determination, also known as R squared, was 0.863214, equivalent to (**86%**). The adjusted R-squared value was 0.861828, equal to (**86%**) which indicated that the explanatory variable had a significant role in determining the disparity in the commercial bank's performance and was an appropriate match. The result gives the impression that the explanatory variables determine 86% of the overall variance in commercial bank performance. The result suggests that the models were an accurate representation of the data.

4.6 Correlations Analysis

Table 6. Correlations Results

		CBP	**DBSD**	**API**	**CADB**
CBP	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	300			
DBSD	Pearson Correlation	.669**	1		
	Sig. (2-tailed)	<.001			
	N	300	300		
API	Pearson Correlation	.895**	.700**	1	
	Sig. (2-tailed)	<.001	<.001		
	N	300	300	300	
CADB	Pearson Correlation	.761**	.624**	.663**	1
	Sig. (2-tailed)	<.001	<.001	<.001	
	N	300	300	300	300

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

The analysis results in Table 6 above show that digital banking service delivery recorded a strong and significant positive correlation of **0.669** with p-value of (**0.001**) with commercial banks' performance in Mogadishu, Somalia. Accessibility of payments infrastructure also showed a strong and significant positive correlation of **0.895** with p-value of (**0.001**) with commercial banks' performance in Mogadishu, Somalia. Additionally, customer's adoption of digital banking services showed a strong and significant positive correlation of **0.761** with p-value of (**0.001**) with commercial banks' performance in Mogadishu, Somalia. Therefore, as identified in table 7 above, all explanatory variables are highly correlated, and Correlation is significant at the 0.01 level (2-tailed).

5. Conclusion

The main objective of this study is to examine the role of digital banking services on commercial banks' performance in Somalia. The ADF test results show that all variables are stationary in the first difference with a constant and trend for each of the three critical levels. Pearson chi-square statistics showed that the association between explanatory variables and commercial banking performance is statistically significant. Descriptive statistics showed that the skewness and kurtosis of the normal distribution of probability are best to fit and close to zero using the Jarque-Bera test. Positive kurtosis values suggest a peaked distribution with long, fatty tails, and it proposes that a large proportion of numbers are concentrated in its tails rather than its center. The regression result gives the impression that the explanatory variables determine 86% of the overall variance in commercial bank performance. The correlation results showed that digital banking service delivery recorded a strong and significant positive correlation with commercial banks' performance in Mogadishu, Somalia. Also, the accessibility of payments infrastructure showed a strong and significant positive correlation with commercial banks' performance in Mogadishu, Somalia. Additionally, customer's adoption of digital banking services showed a strong and significant positive correlation with commercial banks' performance in Mogadishu, Somalia. This study was done only on commercial banks in Mogadishu therefore,

further study can be carried out in all Somali regions. Also, the effect of digital banking on Microfinance institutions' performance in Somalia is a potential research area to be conducted.

6. Policy Implications

To improve the financial performance of commercial banks, the top management of commercial banks should increase the use of digital banking, lowering the number of individuals who have to deal with bank employees while simultaneously improving the effectiveness of commercial banks. Internet banking has proven to be a need for commercial banks since it has allowed customers to access essential services continuously. Somalia's government agencies and financial sector regulators, particularly the Central Bank of Somalia (CBS), should encourage banks to develop digital banking while carefully regulating under CBS supervision to ensure the integrity of digital banking payment systems in Somalia. Financial service delivery, business development, and economic growth across all sectors may benefit from enhanced digital banking performance, which should be accelerated to allow financial deepening and stimulate the provision of financial services. Successors, including mobile phone providers and commercial bankers, should create wallet applications that facilitate digital banking and are easy to use while providing security for those who utilize the service. According to their extensive expertise in delivering mobile and digital banking services, commercial banks should understand what their customers need and generate suitable interoperability digital platform infrastructure that facilitates national payment systems.

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