

The relationship between electronic funds transfer and the financial performance of commercial banks at Ecobank Burundi. A cross-sectional study.

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Abstract

Background

As commercial banks increasingly adopt ATM services, debit and credit cards, e-cheques, and cashless systems, it remains essential to understand how these innovations contribute to financial performance in emerging economies such as Burundi. The study examined the relationship between electronic funds transfer (e-funds transfer) and the financial performance of Ecobank Burundi.

Methodology

A cross-sectional study design was used. The study employed a predominantly quantitative approach, but also incorporated a qualitative component. The study population consisted of 58 participants. A sample size of 49 respondents was selected using simple and purposive sampling techniques. Quantitative data analysis mainly consisted of descriptive statistics (means and standard deviations) and inferential statistics (Spearman correlation, coefficient of determination, and regression). Content analysis was used to analyze qualitative data.

Results

The sample comprised 52.5% males, the majority aged 30–39 years (46%) and holding bachelor's degrees (57.4%). Univariate results revealed high adoption of e-funds transfer services, with mean values above 3.5 across all indicators. Respondents strongly agreed that Ecobank provides debit cards ($M=4.77$), 24-hour ATMs ($M=4.50$), cashless banking ($M=4.41$), and secure e-funds transfer systems ($M=4.22$). Financial performance was also rated highly, with reduced non-performing loans ($M=4.58$), increasing annual income ($M=4.54$), and growing asset base ($M=4.48$). Bivariate analysis indicated a significant positive correlation between e-funds transfer and financial performance ($\rho = .669$, $p = .022$). Regression results confirmed that e-funds transfer significantly predicts financial performance ($\beta = .567$, $p < .01$), with the model explaining 70.3% of the variation (Adjusted $R^2 = .703$).

Conclusion

The study establishes that increased adoption of e-funds transfer enhances efficiency, reduces fraud, promotes customer convenience, and strengthens overall financial performance.

Recommendation

Ecobank Burundi should aim to expand ATM coverage, reinforce cybersecurity measures, and continuously upgrade digital banking platforms to sustain performance gains.

Keywords: *Electronic funds transfer, Financial performance, Ecobank Burundi, Digital banking.*

Submitted: September 01, 2025

Accepted: October 01, 2025

Published: October 30, 2025

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Background

The introduction of Automated Teller Machines (ATMs) has significantly expanded access to banking services, particularly in remote and rural communities such as those in Ghana. Through ATMs, customers are able to deposit and withdraw cash without having to travel long distances to bank branches. While this expansion has facilitated financial inclusion in smaller or dispersed communities,

Morris-Cotterill (2002) notes that full-service ATMs capable of handling both deposits and withdrawals require frequent maintenance and heightened security due to the cash they hold.

According to the Glossary of Terms Used in Payment and Settlement Systems, electronic funds transfer (e-funds transfer) refers to the movement of money or credit between accounts using an electronic medium (Anguelov et al., 2004). Anguelov (2004) further explains that e-funds

transfer systems include features such as direct deposits, ATM cards, debit cards, and similar electronic payment tools. In the context of this study, e-funds transfer technology encompasses the availability, accessibility, and utilization of ATM cards, debit cards, credit cards, and e-cheques to facilitate cash deposits, withdrawals, and balance inquiries.

The adoption of e-funds transfer technologies such as ATMs and e-cheques has shown positive outcomes globally. For example, in Latin America, migrant workers rely on ATMs to send money to their families, who can then access the funds conveniently and at lower transaction costs compared to traditional remittance methods. Such technologies, therefore, enhance the ease, safety, and speed of depositing and withdrawing money, unlike in earlier periods when these electronic options were unavailable. Gourlay and Pentecost (2005) reaffirm that ATMs enable continuous access to retail banking services, including cash withdrawals, account verification, and bill payments, both within and outside branch locations. In the United Kingdom, ATMs have increasingly replaced routine human teller operations, thereby reducing labor costs and lowering transaction expenses associated with urgent cash withdrawals (Ingham & Thompson, 1993; Humphrey, 1994; Haynes & Thompson, 2000, as cited in Gourlay & Pentecost, 2005). Their strategic placement in commercial shopping centers further enhances customer convenience (Organization for Economic Cooperation and Development, 2003). Countries such as Japan, where Ito-Yokado stores plan to offer banking services onsite, demonstrate how retail outlets integrate ATMs to support broader financial access. Similarly, large electronic transactions can be conducted using e-cheques and e-cash, reinforcing the growing reliability and impact of electronic payment systems.

Innovations in e-funds transfer technology have also improved accessibility for special-needs populations. In Australia, for instance, audio-enabled ATMs were introduced through a collaboration between the National Australian Bank's ATM supplier (Diebold) and Blind

Citizens Australia, enhancing financial independence for individuals with visual impairments. These technological advancements underscore the ongoing evolution of electronic banking tools to meet the diverse needs of customers.

In the United States, Berger (2002) observes that IT-driven delivery systems such as ATMs enhance bank performance and contribute to industry consolidation by improving operational efficiency. Through this lens, examining the relationship between electronic funds transfer (e-funds transfer) and the financial performance of Ecobank becomes essential, as it helps establish whether such technologies are yielding similar benefits in the Burundian banking sector. The study examined the relationship between electronic funds transfer (e-funds transfer) and the financial performance of Ecobank Burundi.

Methodology

Study design

A cross-sectional study design was used. The study employed a predominantly quantitative approach, but also incorporated a qualitative component.

Study population

The study employed a target population of 74 respondents at Ecobank Burundi. These comprised 6 administrative staff/managers and 68 lower Bank officials. The choice of the target population is based on the assumption that they possess adequate knowledge of electronic banking and the financial performance of Ecobank.

Sample size

The sample size is determined using the table in Appendix C from a study by Krejcie & Morgan (1970).

Table 1: Sample size of respondents and sampling technique

Category	Population size	Sample size
Administrative/Bank Managers		6
Lower bank officials	68	58
Total	74	64

Source: Ecobank (2024).

Sampling techniques

The study used a stratified random sampling technique to select respondents in the bank. This technique was chosen because the category of these bank officials involved different strata and therefore needed to be represented in

the study. At the end of the study, all strata will be fairly represented accordingly.

Data Collection Methods and instruments

Data sources

The main source of data in this study was primary data. Primary responses were from the respondents. The advantage of primary data is its originality. Primary data was collected using a questionnaire.

Data collection instruments

Questionnaires were used to collect data from the respondents in Ecobank. The questionnaires are popular because the respondents filled them in at their own convenience and are appropriate for large samples. The questionnaires were designed with both open and closed-ended questions. Using five Likert scale from 1-5 (1 strongly disagree, 2disagree, 3not sure, 4agree, 5strongly agree).

Data collection procedures

Obtained a letter from the School of Graduate Studies and Research introducing the study to Ecobank and specifying that the data to be collected will be solely for study purposes. Upon obtaining the requisite permission, the study proceeded with data collection, starting with giving out questionnaires to different employees of Ecobank from different departments like IT & finance, General banking, loans department, security and investigations, Audit and risk, Accounting and finance, Marketing & research, Corporate services, Human resource department, International relationship manager, and Manager customer care.

Table 2: Validity of the instrument

Variable	Description	Anchor	Content validity index
Independent	E-fund transfer	5point	.888
	Telephone banking	5point	.861
	Internet Banking	5point	.776
Dependent	Financial performance	5point	.845

Source: Primary data

For the instrument to be valid, the C.V.I. should be at least 0.7. Therefore, since my questionnaire was valid at 0.892, it was worth conducting the study.

Reliability

After pilot testing in the field, the reliability of the instrument, on multi-item variables (E-Funds transfer, Mobile banking, and internet banking was tested via the Cronbach Alpha Method provided by Statistical Package for the Social Sciences (Foster, 1998). The study used this method because it was expected that some items or

Quality control methods

Controlling quality is about ensuring acceptable levels of reliability and validity of the study through proper control of extraneous variables. An extraneous variable is any other independent variable that can also affect the dependent variable (Oso & Onen, 2008).

Validity

A validity test was carried out before the administration of the questionnaires. Three experts were used. This was done in order to find out whether the questions are capable of capturing the intended responses. Content Validity Index (CVI) was calculated in order to establish the validity of the questionnaire. The study determined CVI, after giving the Self-Administered Questionnaire (SAQ)/ instrument to two management and research professionals for rating/ judgment and scoring. They found out that, respectively, 14 and 15 out of 16 SAQ items were really true and correct. Using the following mathematical model, $CVI = [(IR_1 + IR_2) \div 2] \div \text{No of items in questionnaire}$, the content validity index was accordingly calculated:

IR_1 referred to inter-rater/ judge one; IR_2 meant inter-rater/ judge two.

By substitution, $CVI = [(IR_1 + IR_2)2]/\text{No of items in questionnaire}$

questions would have several possible answers. The study established the reliability of the questionnaires by computing the alpha coefficient of the items (questions) that constituted the dependent variable and that of the items that constituted the independent variable.

Table 3: Reliability indices for the respective sections of the questionnaire

Variable	Description	Anchor	Cronbach alpha
Independent	E-fund transfer	5point	.831
	Telephone banking	5point	.767
	Internet Banking	5point	.786
Dependent	Financial performance	5point	.767

Source: Primary data

According to the Cronbach Alpha Coefficient Test (Cronbach, 1971), the questionnaire was considered reliable since all the coefficients were above 0.7, which is the least recommended CVI in survey studies.

After the approval of the proposal, the study designed the questionnaire, validated it then tested its reliability using the Cronbach Alpha method. After modifying the instrument, the study secured a letter of introduction to assist the study proceed with the study. Two research assistants were selected from the undergraduate classes to help in the distribution and collection of questionnaires from and to respondents.

Data analysis

The data was organized and summarized in one place. The study was then completed with accuracy. The raw data were then captured in Excel (spreadsheet) before being entered into STATA Version 10 for quantitative analysis and interpretation. Cleaning and editing will be done before and after entering data into the computer software to examine outliers and inconsistencies of responses. STATA Version 10 will be used in the detailed analysis of data. Analysis will be done at the Univariate, Bivariate, and multivariate levels.

Univariate analysis

Here, the study looked at how many subjects fell into a given category, and they were given a simpler unit of analysis. The data collected were systematically organized to facilitate analysis. The unit of analysis was the individuals who responded to the survey. The raw data was edited to ensure completeness. Thereafter, it was coded using statistical figures to enable quantitative analysis in STATA Version 10.

Bivariate analysis

Responses were grouped into repeated subjects. The repeated subjects were presented in the results based on the study objectives. Here, a Spearman correlation coefficient was used to determine the relationship between the two variables. The Spearman coefficient was 0.05 level of significance.

Multivariate analysis

The statistical package used to analyze quantitative data that goes beyond two variables in this study was STATA Version 10. Here, multiple regressions were used to determine the degree of relationships between more than two variables. The correlation coefficient was computed to establish the degree of the relationships between the independent variables and the dependent variable and to determine the strength and direction of their relationship. The correlation coefficient results were obtained at the 0.01 level (2-tailed) significance and at the 0.05 level (2-tailed) significance.

Ethical considerations

Informed consent was sought from the respondent before any interview. The data was collected by use of reliable and valid tools, coded, and data collection tools which will be burnt to avoid any form of information misuse. The study ensured that all citations and references to different authors were acknowledged. The study maintained the confidentiality of the respondents and protected their privacy at all times. The study tried to be professional when presenting itself to the respondents, as this might affect the attitude and expectations of the respondents. The study used the language that was as neutral as possible regarding the terminology involving people and avoided discriminative language. Lastly, the study tried to be considerate during the interactions with respondents.

Results

Response rate

Table 4: Showing response rate (N=108)

Instruments	Frequency	Percent
Number of questionnaires distributed	64	100
Number of questionnaires returned	61	95.3

Source: Primary data (2025).

Out of the 64 questionnaires that were distributed, 61 were returned, making a 95.3% return rate. However, according to Amin (2005), 70% of the respondents are enough to represent the sample size set for the study. This means that 95.3% is enough for this study.

The demographic information shows the characteristics of the elements in the sample size. As such, the study sought to establish the general information of the respondents, which forms the basis under which the interpretations were made.

Demographic information of respondents

Gender of respondents

Table 5: Gender of respondents

	Frequency	Percentage
Male	32	52.5
Female	29	47.5
Total	61	100.0

Source: primary data (2025).

The majority of the respondents were male (52.5%) and female (47.5%). These results show that gender

representation indicated a small variation between males and females, with a difference of 3.

Table 6: Age of respondents

Age	Frequency	Percent
18-29	9	14.8
30-39	28	46
45-55	19	31.1
50-60	5	8.2
Total	61	100.0

Source: primary data (2025).

It was established that all the respondents who took part in the study were above the age of 30. 46% were between ages of 30-39 years; 31.1% were between the ages of 45-55years, 18-29years had 14.8% and those 50-60years were represented by 8.2%. The majority of respondents were between the age of 30-39 (46%) because most commercial institutions employ people below the age of 35 to do the

basic work in the institution for example bank tellers, cashiers and loans officers are employed when they are below 35 because they want productive and energetic young men who can accomplish tasks on time and can easily be driven, coordinated and controlled. This explains why the majority of the respondents were between 30 to 40 years.

Table 7: Level of education of respondents

Education level	Frequency	Percent
Certificate	2	3.3
Diploma	16	26.3
Bachelor's degree	35	57.4

Master's degree	2	3.3
Postgraduate diploma	5	8.2
Total	61	100.0

Source: primary data (2025).

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Many of the respondents were degree holders (57.4%) compared to 3.3% master's degree, 26.3% diploma holders, and no doctorate holders, because today most banks at least recruit workers who have attained their diploma, since they possess more trainability skills than persons without

degrees. On the other hand, the minimum requirement to get a job with a commercial bank as a bank teller, cashier, or loans officer is a degree or its equivalent, for example, professional qualifications like ACCA and CPA.

Table 8: Duration at Post Bank Burundi Limited.

Duration	Frequency	Percent
Less than 1year	1	1.6
1-5years	31	50.8
6-10yeaes	17	27.7
11-15years	7	11.5
Over 15years	5	8.2
Total	61	100.0

Source: primary data (2025)

Table 8 shows that the majority of 52.3% of the respondents had worked with Posta Burundi for 1- 5 years, while 19.8% had worked with the bank for 6-10 years. The

least number of respondents (2%) had worked with the Posta for over 15 years.

Marital status of respondents

Table 9: Marital status of respondents

	Frequency	Percent
Married	39	64
Single	13	21.3
Widowed	2	3.3
Cohabiting	4	6.6
Divorced	3	4.9
Total	61	100.0

Source: primary data (2025)

Table 9 shows that the majority of 64% of the respondents were married, while 21.3% were single. The least number of respondents were widowed, constituting 3.3% of the total number of respondents, and those who were cohabiting constituted 6.6% of the total number of respondents.

Univariate analysis

This theme presents empirical findings on observations of e-funds transfer, mobile banking, and internet banking in Post Bank Burundi Limited and the financial

performance. While presenting the empirical findings on the observation of e-funds transfer, mobile banking, and internet banking in Ecobank Burundi and financial performance, means and standard deviations were used to present this information univariately.

Adoption of E-fund transfer services

In an effort to find out whether Ecobank Burundi had adopted e-funds transfer services, respondents were asked to react to different preconceived notions.

Table 10: E-fund transfer

Items	Minimum	Maximum	Mean	Std. Deviation
Cases of bank fraud have reduced as a result of ATM	1	5	4.14	.704
Ecobank Burundi has e-cheque services	1	5	4.19	.703
Our security at Ecobank Burundi is not compromised by the E-funds transfer	1	5	4.22	.695
Ecobank Burundi has a credit card system for its clients	1	5	4.38	.637
Cashless banking is part of the arrangements in Ecobank Burundi	1	5	4.41	.626
Ecobank Burundi has enough ATMs that serve all clients	1	5	4.45	.586
Our ATMs are always working 24 hours	1	5	4.50	.465
Ecobank Burundi has an arrangement for swapping money from one account to another	1	5	4.61	.456
Ecobank Burundi has debit cards for its clients	1	5	4.77	.309

Source: primary data (2025)

The results in Table 10 revealed that the means for all items were above 3.5, and the standard deviation was less than one. Based on the scale of 1-strongly disagree to 5-strongly agree, any data mean of above 3.5 and standard deviations below one indicates the existence of the variables under study. This thus statistically means that Ecobank Burundi has E-Funds transfer services. The items that confirmed the above statistical claim included; Ecobank Burundi has debit cards for its clients (4.77). Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. This implies that Ecobank Burundi has adopted debit cards in its daily business operations, which are essential in easy international business transactions.

Since the mean was above 3.5, this indicates that Ecobank Burundi had in place debit cards for its clients. And since the standard deviation was small (0.309), this critically means that there is not much variation in the mean obtained, and hence, the statement can be taken as passing the criterion.

Ecobank Burundi has an arrangement of swapping money from one account to the other (M=4.61) and (SD=.456). Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. This thus means that Ecobank Burundi can easily allow easy switching of money from one bank to the other, which makes it convenient for clients to do business & cost-effective for Ecobank Burundi.

The ATMs are always working 24 hours (M=4.50) and (SD=.465). Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. This therefore meant that there is easy access to money at all times whenever the clients need so. This depicts the convenience and timesaving in Ecobank Burundi has

enough ATMs that can serve all clients (M=4.45) and (SD=.586). Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents.

Cashless banking is part of the arrangements in Ecobank Burundi (M=4.41) and (SD=.626). Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. This was also agreed on by most of the respondents, and it meant that Ecobank Burundi allows mobile transfer of money in any locality. This is also an issue of convenience.

Ecobank Burundi has a credit card system for its clients (M=4.38) and (SD=.637). Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. The credit card system makes it easy for clients to buy goods without using hard cash.

The security at Ecobank Burundi is not comprised by E-funds transfer (M=4.22) and (SD=.695). Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. This tells us that the bank has done a lot to away of phishing and cybercrimes that are involved in electronic money transfer.

Other statements that were agreed on included: Ecobank Burundi has e-cheque services (M=4.19) and (SD=.703); Cases of bank fraud have reduced as a result of ATM (M=4.14) and (SD=.704). Since the means are above 3.5 and the standard deviations are below 1, this means there is not much variation in the mean score obtained from different respondents. These meant that customers can easily use their money even if they are at home or out of the country. These are the basis for increased financial performance in the bank.

Perceived financial performance of Ecobank Burundi

To understand the perceived financial performance of Ecobank Burundi, respondents were asked to react to different preconceived statements.

Table 11: Perceived financial performance of Ecobank Burundi

	Minimum	Maximum	Mean	Std. Deviation
Our bank has enough cash to meet its obligations effectively (as and when they fall due)	1	5	3.59	.998
All our loans are paid on time	1	5	3.69	.865
The Default level in our bank has been reduced for the past three years	1	5	4.02	.875
Our Return on Equity has increased for the past three years	1	5	4.02	.796
Every year increases shareholders' equity	1	5	4.12	.783
Our net income has exceeded our operating costs for the last 3years	1	5	4.16	.665
All bank loans are duly corrected	1	5	4.29	.640
The bank's asset base has greatly increased over time	1	5	4.48	.598
The bank's income increases every year	1	5	4.54	.550
The percentage of non-performing loans in our bank has been consistently reducing	1	5	4.58	.472

The results in Table 11 reveal that the performance of Ecobank Burundi was a bit convincing. Based on the scale of 1-strongly disagree to 5-strongly agree, any data mean of above 3.5 and standard deviation below 1 indicates the existence of the variables under study. This thus statistically means that the financial performance of Ecobank Burundi was promising. Among the items that had means above 3.5 and smaller standard deviations included;

The percentage of non-performing loans in our bank has been reducing consistently (4.58) and (SD=.472). This was agreed upon by most of the respondents. Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. This means that the bank is making fewer losses in loans, which makes it stable for people to open accounts and work with it.

The bank's income increases every year (4.54) and (SD=.550). This was agreed upon by most of the respondents. Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. This therefore means that since the bank is performing white well income income-wise, there is a possibility that even its clients are benefiting.

The bank's asset base has greatly increased over time (4.48) and (SD=.598). This was agreed upon by most of the respondents. Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. This implies that since bank assets are growing, there is

stability in the bank, which acts as security for clients in case there are any malfeasances.

All bank loans are duly corrected (4.29) and (SD=.640). Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. This was agreed upon by most of the respondents. This means that the bank is making fewer losses in loans, which makes it stable for people to open accounts and work with it. This is in line with what Ahmed et al (2006) had earlier indicated that making fewer losses is a result of telephone banking.

The net income supersedes the operating costs for the last 3years (4.16) and (SD=.665). This was agreed upon by most of the respondents. Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. This therefore means that since the bank is performing white well income income-wise, there is a possibility that even its clients are benefiting.

Every year increases shareholders' equity (4.12) and (SD=.783). Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. This was agreed upon by most of the respondents. This is an indicator of safety in bank services. Thus, this implies that since bank assets are growing, there is stability in the bank, which acts as security for clients in case there are any malfeasances.

The Return on Equity has increased for the past three years (4.02) and (SD=.796). Further, this was agreed with by most of the respondents. Since the mean is above 3.5 and the standard deviation is below 1, this means there is

not much variation in the mean score obtained from different respondents. This is an indicator of safety in bank services. Thus, this implies that since bank assets are growing, there is stability in the bank, which acts as security for clients in case there are any malfeasances.

The Default level in our bank has reduced for the past three years (4.02) and (SD=.875); this was agreed upon by most of the respondents. Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. This therefore means that since the bank is performing white well income income-wise, there is a possibility that even its clients are benefiting.

All the loans are paid in time (3.69) and (SD=.865); our bank has enough cash to meet its obligations effectively (as and when they fall due) (3.59) and (SD=.998). Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. These thus mean that Stanbic Bank Burundi has enough liquidity, low non-performing loans, increase in its assets and profitability are perceived as increasing.

Bivariate analysis

Correlation statistics were used in bivariate analyses. Correlation statistics is a method of assessing the relationship between variables/factors. To be precise, it measures the extent of association between the ordering of two random variables, although a significant correlation does not necessarily indicate causality but rather a *common linkage* in a sequence of events. Thus, the study analyzed the relationships that are inherent among the independent and dependent variables as well as among the independent variables/ factors.

The relationship between e-funds transfer and the financial performance of ECO Bank Burundi.

To test if there was a relationship between e-funds transfer and the financial performance of Ecobank Burundi, a Spearman's rho correlation coefficient was used by the study.

To verify this hypothesis, a null hypothesis was derived that “*E-funds transfer banking has a positive relationship with the financial performance of ECO Bank Burundi.*”

Table 12: Correlation results between e-funds transfer and financial performance

			E-funds transfer banking	Financial performance
Spearman's rho	E-funds transfer banking	Correlation Coefficient	1.000	.669**
		Sig. (2-tailed)	.	.022
		N	86	86
	Financial performance	Correlation Coefficient	.669**	1.000
		Sig. (2-tailed)	.022	.
		N	86	86

** . Correlation is significant at the 0.05 level (2-tailed).

Findings show that there was a significant positive correlation ($rho = .669$) between E-funds transfer services and financial performance. These findings were subjected to a test of significance (p), and it is shown that the significance of the correlation ($p = .022$) is less than the recommended critical significance at 0.05. Thus, the relationship was significant. Because of this, the hypothesis “*E-funds transfer banking has a positive relationship with the financial performance of Ecobank Burundi*” was accepted.

Multivariate analysis

Regression was used to establish the multivariate results of the study. Table 4.14 below has more details.

**Table 13 shows the multivariate analysis.
Model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F Statistic	Sig.
1	.950 ^a	.802	.703	.47158	14.277	.000

a. Predictors: (Constant), E-funds transfer, Telephone banking, Internet banking

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.939	.341		5.681	.000
E-funds transfer	.159	.089	.567	4.996	.078
1 Telephone banking	.159	.089	.523	4.788	.078
Internet banking	.327	.105	.391	3.125	.003

a. Dependent Variable: financial performance

The findings in Table 13 showed that of all the predictor variables in the regression model of financial performance, all dimensions were found to have beta values (E-funds transfer beta = .567, $p < .01$) were found to have a significant and positive effect on the financial performance of Ecobank Burundi. This implies that the higher the level of adoption of e-funds transfer in ECOBANK BURUNDI, the greater the improvement in the financial performance of the bank's innovative products. The regression model of financial performance was found to be significant ($F = 14.277$, $p < .01$) and hence well specified, which means that e-funds transfer was an appropriate predictor of financial performance in Ecobank Burundi.

The predictive power of the model was found to be 70.3% (Adjusted R Square = 0.703). This result indicates that the variation in e-funds transfer accounts for 70.3 of % variation in the level of financial performance in Ecobank Burundi.

Discussion of results

The relationship between e-funds transfer and the financial performance of Ecobank Burundi

E-funds transfer had a significant positive effect on the financial performance of ECO Bank Burundi (coefficient estimate ($\beta_1 = 0.669$, $p \text{ value} = 0.001$). In particular, the positive and significant effect implied that a change in E-funds transfer contributed to a significant change in financial performance, whereby improvement in E-funds transfer caused improvement in financial performance and vice versa.

This study finding is in agreement with Morris-Cotterill (2002), which had indicated that ATMs have extended

banking services to the remote areas depositing and withdrawing of funds can be carried out in rural areas. This has enabled loading and unloading of cash in small communities or in widespread communities where people gather; however, real cash ATMs for general use and deposit would require more servicing and more security (Morris-Cotterill, 2002). Cracknell (2004) further supported, opinion that Malawi Central Bank established a smart card infrastructure with biometric-enabled ATMs with an aim of reducing insecurity within the banking industry, with the use of such developments on the ATMs, withdrawal and depositing of cash is now done safely, thus yielding positive results. According to the Glossary of Terms Used in Payment Settlement Systems, as reported by Anguelovet. Al. (2004) e-funds transfer is defined as the movement of money or credits from one account to another through an electronic medium.

According to a Survey of Consumer Finances (2001), as reported by Anguelov (2004) still confirms that e-funds transfer has features such as direct deposit, an ATM, or debit card among the rest. In this study, e-fund transfer technology means the availability, accessibility, and usage of ATM cards, debit cards, credit cards, and e-cheques with reference to cash deposit, cash withdrawal, and account balance inquiry.

Gourlay and Pentecost (2005), in support of the findings, explain that funds are transferred electronically using ATMs to provide retail banking services, allowing 24 hours a day cash withdrawal, balance verification, and bill payment at branches and remote locations away from branches. ATMs in the UK are seen as a substitute for labor, particularly in routine human teller operations. Transaction costs associated with the need to withdraw cash unexpectedly are lowered (Ingham and Thompson, 1993; Humphrey, 1994; Haynes and Thompson, 2000 as

reported by (Gourlay and Pentecost, 2005). ATMs are widely used in transfer of cash transfers. They are mainly located at shopping stations to help customers carry out shopping easily (Organization for Economic Cooperation and Development, 2003). There are positive results noted in the use of e-funds transfer, with increased use of ATMs and e-cards.

All our loans are paid in time (3.69) and (SD=.865); our bank has enough cash to meet its obligations effectively (as and when they fall due) (3.59) and (SD=.998). Since the mean is above 3.5 and the standard deviation is below 1, this means there is not much variation in the mean score obtained from different respondents. These thus mean that Stanbic Bank Burundi has enough liquidity, low non-performing loans, and an increase in its assets and profitability is perceived as increasing. These are indicators of prevailing good financial performance in ECOBANK BURUNDI. These are in line with what Bohm et al (2000) had earlier indicated that some banks have always accepted instructions by telephone from trusted customers well known to them, as part of their ordinary branch banking service.

Conclusion

It was established that there was a positive relationship between e-funds transfer and the financial performance of Ecobank Burundi. Centered on the empirical results of this study, it is concluded that Ecobank Burundi undertakes the required e-funds transfer to support its financial performance.

Limitations of the study

Attrition: Some respondents filled in the questionnaires without really reading or understanding the question, but just to complete quickly.

Sensitivity of information; some respondents felt the information required was sensitive and could affect their working environment if revealed.

Unwillingness to fill out the questionnaires; some respondents were unwilling to share information about their leaders and the service system.

Interpretation of the questions; this affected the meaning, as some respondents had difficulty in interpreting the questions correctly

Recommendation

Based on the study findings, trust building in ICT infrastructures with clients needs to be put as a primary concern by most commercial banks that want their performance to improve under mobile banking. This can be done by ensuring that the system installed can provide updated information frequently to both the bank and the customers. Ecobank Burundi managers should develop a

system that provides up-to-date and relevant financial information with good user interface consistency to enhance trust.

Acknowledgements

First of all, I offer my heartfelt thanks to Almighty Allah (God), whose boundless grace, wisdom, and strength have been my steadfast companions throughout my academic endeavours. It is through His favour and guidance that I have been able to overcome the challenges of this journey and reach this point of accomplishment.

I wish to extend my deepest gratitude to my supervisor, Dr. Ssendagi Muhamad, and Mr Guy Simbeko, whose unwavering support, resilience, and insightful guidance were instrumental in the completion of this research. Without their mentorship and expertise, this study would not have been possible.

I would like to express my gratitude to all my module lecturers throughout the entire course. Their words of wisdom and encouragement have been a source of motivation and have helped me shape up my skills.

I am deeply grateful to my Classmates for their immense ideas and teamwork during this entire course period. May God bless you all.

To my workmate, who has always been there for me throughout this course. I wouldn't have made it if it weren't for your full support and teamwork. God bless you. I am also profoundly grateful to my family and friends whose love, encouragement, and support have sustained me throughout this challenging journey. Your belief in me provided the motivation I needed to persevere.

Lastly, but by no means least, I would like to express my appreciation to all the participants who generously took the time to respond to my questionnaire. Your contributions were invaluable to the success of this research.

List of abbreviations

ATM	Automatic Teller Machine
BRB	Bank of the Republic of Burundi
CVI	Content Validity Index
EFT	Electronic Fund Transfer
PAR	Portfolio at Risk
PD	Probability Default
SPSS	Statistical Package for Social Scientists
ICT	Information computer technology
CABS	Central Africa Building Society
SCB	Standard Chartered Bank

Source of funding

The study was not funded.

Conflict of interest

There is no conflict of interest.

Availability of data

Data used in this study are available upon request from the corresponding author.

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Authors contribution

ZO designed the study, conducted data collection, cleaned and analyzed data, and drafted the manuscript, and SM supervised all stages of the study from conceptualization of the topic to manuscript writing and submission.

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