Innovations

Effect of Innovative Finance on Profitability of Commercial Banks Operating in Ethiopia

Dr.T. Hymavathi Kumuri
Associate Professor, Department of Accounting and Finance, Dilla University, Dilla, Ethiopia.

Kanbiro Orkaido Deygnato
Lecturer & Researcher, Department of Accounting and Finance, Dilla University, Dilla, Ethiopia

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Abstract

Thepurpose of this study was to identify the effectof innovative finance on the profitability of commercial banks operating in Ethiopia. The study used secondary data source were collected from employed select sixteen commercial banks operating in Ethiopia covering the periods from 2016 to 2020 G.C. Random-effect model was used to examine the effect of independent variables on return on asset (ROA) which used as a profitability measure. This study deals effect of innovative finance onthe return on assets of commercial banks operating in Ethiopia. The result of the paper indicated that innovative finance parameters such as ATM, number of mobile banking users, agent banking users, number of internet banking users, number of point of sale terminal, debit card, electronic fund transfer,new saving account has positive effect on the financial performance of commercial banks. It would be contributed to the existing body of knowledge on the relationship between innovative finance and the profitability of commercial banks. This study implied that financial innovations have a positive and significant impact on the profitability of commercial banks.

Keywords: *1.Innovation, 2.Finance, 3.Commercial banks, 4.Profitability, 5.Return on Asset*

Introduction

Banks paly the great role in the world by mobilizing money in the economys. To improve money mobilization activity more than ever, banks introduced financial innovations like ATM, electronic fund transfer, agency banking, mobile banking, debit card, internet banking, and post of sales (POS) to improve financial performance (Arnaboldi&Rossignoli, 2015). These banking innovations have altered traditional banking services and their ultimate value addition to financial services cannot be ignored (Mwai, 2021). Financial innovation can be considered a key factor for improving the performance and increasing the profitability of financial institutions (Azimova, 2021). Lack financial innovation leads to reduaction in banks performance. So, it is very constructive to investigate the effect of financial innovation on the performance of commercial banks in the present day where there is intense competition among financial institutions especially banks. Accordingly, new-age customers are more sophisticated and expected new systems regarding banking services. According to Tahir, Shah, Arif, Ahmad, Aziz&Ullah, (2018), financial innovation

means the inclusion of new financial instruments in financial intuitions and markets through new technologies.

Previous studies outside Ethiopia implied the mixed effect of innovation on financial performance of banks. For instance, Nyambariga (2013); Makur (2014); Nyaga (2015); Githii&Mwangi (2018); Temam (2018); Nekesa&Olweny (2018); Yasin(2018); Bultum (2014); Ngando (2017); Mulwa (2017); Wol, (2019); Mwawasaa& Ali (2020);.Mwai (2021); Masika (2019); Zouari-Hadiji (2021); Zouari&Abdelmalek (2020Mohamud&Warui (2021) found out that bank innovations have a positive impact on financial performance. However, other scholars like; Scholnick, Massoud, & Saunders (2013);Beck, Chen, Lin, & Song (2016);Nyathira (2012); Lee, Wang, & Ho (2020); Ngumi (2014)., McAndrews (2013), Muia (2017); Nader (2017), Akram and Allam (2017) and Prager (2017)Chen and Peng (2020) were found out that bank innovations have a negative influence on the financial performance of commercial banks.

From the overhead passage, it was seen that there is mixed evidence on effect of innovations on banks perfoarmance that it becomes imperative to carry out the study from the point of view Ethiopian whether bank innovation has an impact on the financial performance of commercial banks operating in the country. This is an evidence gap because there is a debatable on whether banking innovation has a positive or negative effect on the financial performance of commercial banks.

There is narrow literature on the issue of financial innovation in Ethiopia because most studies conducted in Ethiopia were focused on effect of electornic banking on customer satisfaction. For instance, Assefa (2017), Gardachew (2010); Tilahun (2016); Asfaw (2017); Shaikh (2014); Berhanu (2017);Tufa &Teshu (2015); Worku, Tilahun, &Tafa (2016);Ejigu (2017); Bambore&Singla (2017); and Mohamud (2017) were addressed the relation between e-banking and customer satisfaction and concluded there is the positive correlation between e-banking and customer satisfaction in the Ethiopian banking system. The aforementioned studies were only focused on the effect of financial innovation on customer satisfaction of banking operating in Ethiopia other than the Impact of Financial Innovations on Financial Performance. This showed that the topic impact of financial innovations on financial performance in Ethiopia was ignored by most researchers in Ethiopia.

Most of the empirical studies conducted on a similar topic are with a limited study population because they considered about 10 oldest banks such as Awash International Bank, Dashen Bank, Bank of Abyssinia, commercial bank of Ethiopia, Wegagen Bank, United Bank, Nib international bank, Cooperative Bank of Oromia, and Lion International Bank and ignored six recently established commercial banks in Ethiopia. This means, prior empirical studies only addressed the issue with limited financial institutions which is a gap of the study population. This study will fill the study population gap by incorporating all 16 commercial banks officially registered and have five consecutive years of audited financial data from 2016 to 2020 G.C.

Hence, the researcher has explored the impact of eight (8) explanatory variables of bank innovations (Automatic Teller Machines, Debit cards, mobile banking, internet banking, agent banking; electronic fund transfer, point of sales service, and new saving account on the financial performance of commercial banks in Ethiopia. Therefore, this study sought to fill the existing research gaps. The rest section of the paper covers reviews of literature, research methodology, results, discussions, conclusion, direction for future research, reference, and Appendix.

Review of related studies and tentative statements

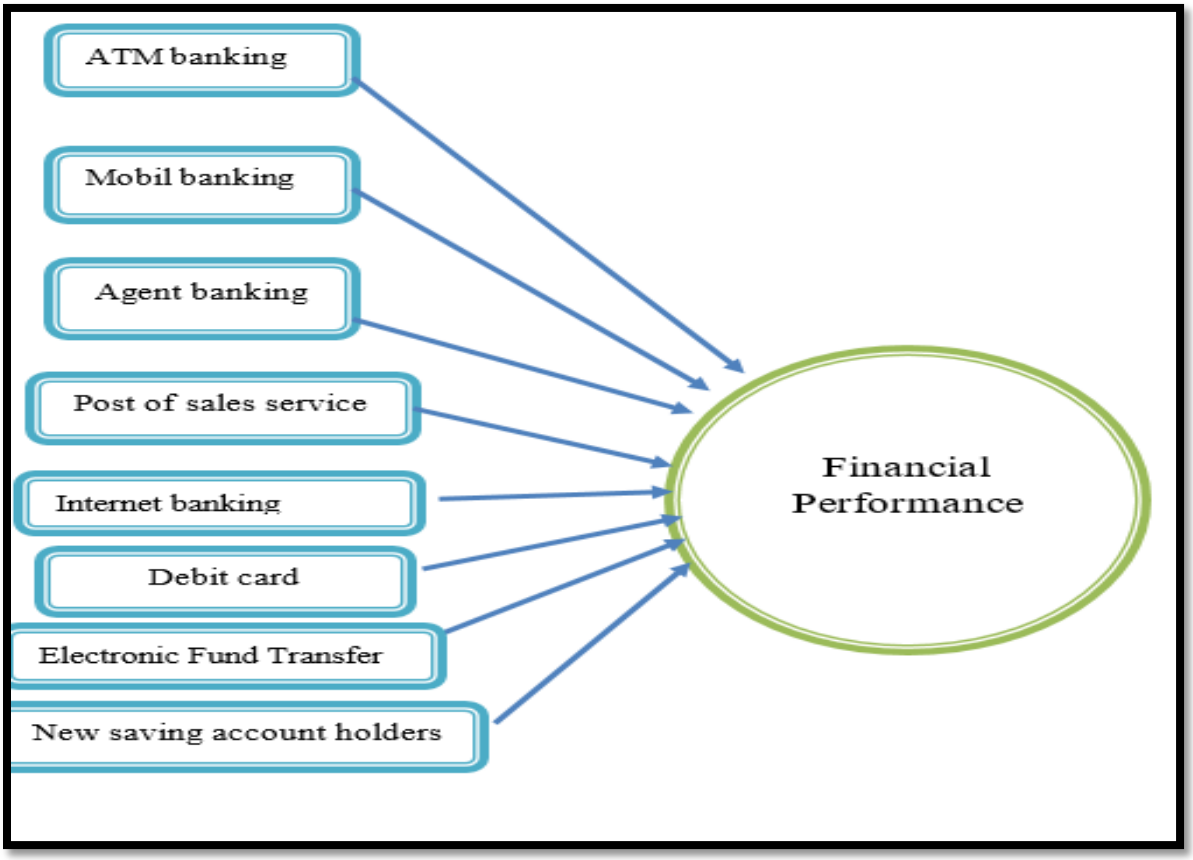
Variables Incorporated in the model	Hypothesis
1. ***Automated Teller Machine:*** *An automated teller machine (ATM) is an electronic banking outlet that allows customers to complete basic transactions without the aid of a branch representative or teller using a credit card or debit card can access cash at most ATMs. Empirical studies such as Makur (2014); Mbevi,(2015); Mahilet (2018); Nyaga (2015); Nyambariga (2013).Lee et al., (2020),Githii&Mwangi (2018); Muia (2017);Temam.R. (2018); Mwawasaa&Ali(2020); Odhiambo&Ngaba (2019); and Nekesa&Olweny (2018) were found out that numbers of ATM terminals have a positive and significant effect on the financial performance of commercial banks due to high initial investment as compared to the income generated.*	**H1:** The number of ATMterminals installed by the banks has a positive and statistically significant effect on financial performance
2. ***Mobile Banking:*** *Mobile Banking refers to the provision and ailment of banking- and financial services with the help of mobile telecommunication devices Makur (2014); Nyaga (2015); Nyambariga (2013). Lee et al., (2020), Githii&Mwangi (2018); Muia (2017); Nekesa&Olweny (2018); Mbevi,(2015); Mwai (2021); and Masika (2019) were found that the number of mobile banking users positive impact on Financial performance.*	**H2:** Number of mobile banking users positive effect on Financial performance
3. ***An agent bank:*** *An agent bank is a bank that performs services in some capacity on behalf of an entity. ... These banks generally act on behalf of another bank or group of banks, but they can act on behalf of a person or business. Empirical studies such as Makur (2014); Nyaga (2015); Nyambariga (2013).Lee et al., (2020), Mbevi,(2015); Mwawasaa&Ali(2020); Githii&Mwangi (2018); Muia (2017); Nekesa&Olweny (2018); Odhiambo&Ngaba (2019); Simboley (2017); Mwai (2021); were found that Number of agent banking users positive effect on Financial performance. So that the researcher hypothesized that:*	**H3:** Number of agent banking positive effects on Financial performance
4. ***Point of Sales Terminals:*** *A point of sale terminal (POS terminal) is an electronic device used to process card payments at retail locations. A POS terminal generally does the following: Reads the information of a customer's credit or debit card. Checks whether the funds in a customer's bank account are sufficient. Empirical studies such as Makur (2014); Nyaga (2015); Nyambariga (2013).Lee et al., (2020),Githii&Mwangi (2018); Muia (2017); Temam.R. (2018); Nekesa&Olweny (2018); Odhiambo&Ngaba (2019); and Mbevi,(2015) were found that the number of agent banking users positive effect on bank financial performance.. So that the researcher hypothesized that:*	**H4:** Number of point of sale terminals positive effect on Financial performance
5. ***Internet Banking:*** *Online banking, also known as internet banking, web banking, or home banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website*. The prior studies' findings revealed that Makur (2014); *Nyaga (2015);* Nyambariga (2013).Lee et al., (2020),Githii&Mwangi (2018); Muia *(2017); Nekesa&Olweny (2018); Mbevi,(2015); Mwai (2021); and Masika (2019); were found that the number of agent banking users positive effect on Financial performance.*	**H5:** Number of internet banking users positive effect on Financial performance.
6. ***Debit card:*** *A debit card is a payment card that deducts money directly from a consumer's checking account when it is used. Also called "check cards" or "bank cards," they can be used to buy goods or services; or to get cash from an automated teller machine or a merchant who'll let you add an extra amount onto a purchase.*	**H6:** Debit card has positive effect on financialperformance of banks.

	Prior studies such as Makur (2014); *Nyaga (2015);* Nyambariga (2013).Lee et al., (2020),Githii&Mwangi (2018); *Mwawasaa& Ali(2020); Muia (2017); Nekesa&Olweny (2018); Odhiambo, S. O., &Ngaba, D. (2019); Mbevi,(2015); and Mwai (2021) were concluded that debit card has a positive effect on financial performance.*	
7.	***Electronic Funds Transfer (EFT)****is the the innovation that help to transfer money from one user to other user. Empirical studies such as Makur (2014); Nyaga (2015); Nyambariga (2013); Lee et al., (2020), Githii&Mwangi (2018); Muia (2017); Temam.R. (2018); Mwawasaa&Ali(2020); Nekesa&Olweny (2018); Yasin(2018); and Odhiambo, &Ngaba, (2019) were evidenced that agent electronic fund transfer has positive effect on financial performance.*	**H7:** Number of electronic fund transfer positive effect on Financial performance
8.	***New Saving account holders****: A savings account is an interest-bearing deposit account held at a bank. The increase in the number of saving account holders improves bank financial performance. Makur (2014); Nyaga (2015); Nyambariga (2013). Lee et al., (2020), Githii&Mwangi (2018); Mwawasaa& Ali(2020); Muia (2017); Nekesa&Olweny (2018); Odhiambo, S. O., &Ngaba, D. (2019); Mbevi,(2015); and Mwai (2021) were found that were evidenced that savings account holders have a positive effect on financial performance.*	**H8:** New Saving account has a positive effect on Financial performance

Conceptual Frame Work of the Study

This section provides a conceptual framework for this study based on an empirical literature review. It explains the key variables and relationships among them. The conceptualization helps to answer the study's research questions. Hence; the following conceptual framework was developed to serve as a road map to analyze the entire study. Hence, in the below model variables such as Automatic Teller Machines, Debit cards, mobile banking, internet banking, agent banking; electronic fund transfer, point of sales service, and new saving account are independent variables incorporated in the model and internal audit financial performance is the dependent variable.

Figure 1 Conceptual Framework



Source: Own building based on literature review, 2021

Research Methodology

Research Design& Approach

This study has examined the impact of financial innovations on financial of Commercial Banks in Ethiopia. To do this, the researcher employed an explanatory design which enables to explain the cause and effect relationship between (8) eight independent variables such as automatic teller machines, debit cards, mobile banking, internet banking, agent banking; electronic fund transfer, point of sales service, and new saving account are independent variables incorporated in the model and financial performance. Mixed research approach was employed for conducting this paper.

Data Sources, Method of Data Collection, and Analysis

The secondary data. Hence, the five consecutive years of audited financial statements were the source of data. The researcher used both descriptive and inferential statistics using E-views9. Before running regression analysis, diagnostic checking is done to test whether the sample is consistent with the classical linear regression model (CLRM) assumptions such as normality, multicollinearity, model specification test, and Heteroscedasticity and autocorrelation tests have been done.

Target Population, Sample Size, and Selection Techniques

The target population of the study consists of 17 commercial banks operating in Ethiopia. To determine sample size from the total 16 banks were selected purposively. The reason behind selecting 16 commercial banks was the availability of full five-year audited financial statements from 2016 to 2020 G.C.

Operational Definition of Variables

Table 2 Summary of variables definition and scale of measurement

Variables Definition	Symbol	Measurement
Dependent variable		
Financial performance: Return on assets is a ratio that provides how much profit a company can generate from its assets. In other words, return on assets (ROA) measures how efficient a company's management is in generating earnings from their economic resources or assets on their balance sheet.	ROA	$ROA = \frac{Net\ income}{Total\ Asset}$
Independent variables		
Automated Teller Machine: An automated teller machine (ATM) is an electronic banking outlet that allows customers to complete basic transactions without the aid of a branch representative or teller using a credit card or debit card can access cash at most ATMs.	ATM	Natural log of Number of ATM terminals installed by the banks
Mobile Banking: is the type of banking innovation where users utilize theiermobilies for making business transctions.	MB	Natural log of Number of mobile banking users
An agent bank: An agent bank is a bank that performs services in some capacity on behalf of an entity. ... These banks generally act on behalf of another bank or group of banks, but they can act on behalf of a person or business	NA	Natural log of Number of agent banking
A point of sale terminal (POS terminal) is an electronic device used to process card payments at retail locations. A POS terminal generally does the following: Reads the information of a customer's credit or debit card. Checks whether the funds in a customer's bank account are sufficient.	POS	Natural log of Number of A point of sale terminal banking
Internet banking: Online banking,also known as internet banking, web banking, or home banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website.	IB	Natural log of Number of Internet banking users
Debit Card: A debit card is a payment card that deducts money directly from a consumer's checking account when it is used. It improves the profitability of the firm.	DC	Natural log of Number of debit cardholders
Electronic funds transfer (EFT) is the electronic transfer of money from one bank account to another, either within a single financial institution via computer-based systems, without the direct intervention of bank staff.	EFT	Natural log of Number of revenue from EFT
A savings account is an interest-bearing deposit account held at a bank. Though these accounts typically pay a modest interest rate, their safety and reliability make them a great option for parking cash you want available for short-term needs. It improves the productivity of the firm.	NSA	Natural log of Number of new saving account holders

Source: Own construct, 2021

Econometrics Model

The multiple regression analysis has been used because there is more than one independent variable. The model will take the following equation:

$$ROAit = \beta 0 + \beta 1 * NATMit + \beta 2 * NMBUit + \beta 3 * \mathrm{NAB}t + \beta 4 * \mathrm{NPOS}it + \beta 5 * \mathrm{NIB}it + \beta 6 * \mathrm{NCDU}it + \beta 7 * \mathrm{EFT}it + \beta 8 * \mathrm{NSA}it + Uit$$

Where:
ROA-Return on Asset that measures financial performance
NATM= Number of ATM terminals
NMBU= Number of Mobile banking users
NAB = Number of agent banking
NPOS= Point of sales terminals
NMBU= Number of Mobile banking users
NIBU= Number of Internet banking users
NDC= Number of Debit cardholders
EFT= Electronic fund transfer
NSA= Number of new saving account holders

Results

Thissectionpresentsthedescriptive statisticsof dependentandindependentvariablesused inthe studyfor thesampled private commercial banks. Thedependentvariables used in thisstudywereROA while theindependentvariableswere Automatic teller machine terminals,mobile banking, agent banking, the post of sale terminals, debit card internet banking, management efficiency, bank liquidity, inflation and, gross demotic product.Table 3 demonstrates the mean, maximum and minimum values and standard deviation of the dependent and independent variables over the study period.

Descriptive statistics

Descriptive statistics like to mean, maximum, minimum value, and Stdaadrd deviation were analyzed in the following table.

Table 3 Summary of descriptive statistics

Particulars	ROA	ATM	MB	AB	POS	IB	DC	EFT	NSA
Mean	0.0322	1.5602	3.3735	2.9056	3.0455	2.3573	3.1046	2.6389	0.2579
Maximum	0.0953	6.5249	7.3849	7.3849	8.6965	9.1981	7.3854	8.2933	10.095
Minimum	0.0053	0.1660	1.0556	0.1660	0.7293	0.0541	0.2455	0.0012	0.0002
Std. Dev.	0.0265	2.1090	2.3885	3.0035	2.6131	1.9177	1.8671	3.0530	1.5851
Observations	80	80	80	80	80	80	80	80	80

Source: E-views9results, 2021

The result indicates that the sampled banks on average earned a profit of 0.032278 cents from one birr invested in the asset. The maximum value of the ROA was 9.53 percent and the minimum value of 0.5 percent with a standard deviation of 0.0276. This shows that profitable branches earned 0.0953 cents of profit for a single birr invested in their assets. On the other hand, the least profitable branches earned 0.0053 cents of profit for each birr invested in their assets during the study period. The standard deviation of 0.2560 shows the profitability variations of private commercial banks. Concerning explanatory variables deployed in table 3 above, automatic teller machine a terminal, mobile banking, Point of sales, agent banking, credit card, electronic money transfer, and new saving account holders has also had the mean values of 0.032278, 1.560259, 3.373523, 2.905685, 3.045583, 2.357345, 3.104678, 2.638959, and 0.257952 percent

respectively. The mean value result suggested that commercial banks in Ethiopia earn 0.032278, 1.560259, 3.373523, 2.905685, 3.045583, 2.357345, 3.104678, 2.638959, and 0.257952 cents of one birr asset was invested on automatic teller machine a terminal, mobile banking, Point of sales, agent banking, credit card, electronic money transfer, and new saving account holders respectively. The minimum values of the variables imply the minimum profit generated from investment in each innovation. The maximum values of automatic teller machine a terminal, mobile banking, Point of sales, agent banking, credit card, electronic money transfer, and new saving account holders implies that maximum profit earned from investment in banking innovations. The standard deviation for variables of shows the deviation of the average mean value from maximum and minimum values among banks.

Correlation Analysis

Correlation is a way to index the degree to which two or more variables are associated with or related to each other (Brooks, 2008). The correlation matrix for this study was computed as follow:

Table 4 Correlation analysis

Items	ROA	ATM	MB	AB	POS	IB	DC	EFT	NSA
ROA	1	0.12033	0.4999	0.4862	0.3236	0.1016	0.3826	0.5168	0.0365
ATM	0.1203	1	0.2009	0.5239	0.5147	0.0154	0.2495	0.1661	0.3677
MB	0.4999	0.2009	1	0.5569	0.0724	0.0286	0.6040	0.5830	0.0503
AB	0.4862	0.5239	0.5569	1	0.6269	0.0371	0.4186	0.4537	0.2133
POS	0.3236	0.5147	0.0724	0.62629	1	0.3115	0.1229	0.1423	0.2129
IB	0.1016	0.0154	0.0286	0.0371	0.3115	1	0.0689	0.0932	0.3078
DC	0.3826	0.2495	0.60402	0.4186	0.1229	0.0689	1	0.4313	0.2095
EFT	0.5168	0.1661	0.5830	0.4537	0.1423	0.09327	0.4313	1	0.2546
NAS	0.0365	0.3677	0.0503	0.2133	0.2129	0.3078	0.2095	0.2546	1

Source: E-views9results, 2021

As shown in Table 4 above, automatic teller machine a terminal, mobile banking, Point of sales, agent banking, credit card, electronic money transfer, and new saving account holders, were positively correlated with ROA with a correlation coefficient of 0.1203, 0.4999, 0.4862, 0.3236, 0.1016, 0.3826, 0.5168, and 0.0365 respectively. This correlation shows that the coefficient of all independent variables increases as the return on asset increases and also moves in the same direction.

The Regression Results

Before, processing the regression analysis, the researcher assessed all model assumptions (see appendix). In this section, the researcher interoperated the model and discussed the finding in comparison with the empirical studies reviewed.

Table 5 Random effect regression results on ROA model

Method: Panel EGLS (Cross-section random effects)				
Date: 10/12/21 Time: 05:45				
Sample: 2016 2020				
Periods included: 5				
Cross-sections included: 16				
Total panel (balanced) observations: 80				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ATM machine	0.03919	0.001233	3.179450	0.0022***
Mobile banking	0.06638	0.001499	4.427432	0.0000***
Agent banking	0.07899	0.002113	3.738423	0.0004***
Post of sales service	0.04276	0.001327	3.221173	0.0019***
Internet banking	0.02814	0.001270	2.216154	0.0300**
Debit card	0.09165	0.002194	4.177722	0.0001***
Electronic Fund transfer	0.02301	0.001066	2.158582	0.0344**
New Saving Account holders	0.05066	0.001850	2.738689	0.0078***
Constant	0.007334	0.009436	0.777262	0.4397
R-squared	0.729441	Mean dependent var		0.032278
Adjusted R-squared	0.675737	S.D. dependent var		0.026544
S.E. of regression	0.017289	Akaike info criterion		-5.150368
Sum squared resid	0.020626	Schwarz criterion		-4.822839
Log-likelihood	217.0147	Hannan-Quinn criteria.		-5.019052
F-statistic	10.72054	Durbin-Watson stat		2.0000
Prob(F-statistic)	0.000000***			
Note: The analysis was made based on 1(***) and 5(**) percent significant levels.				

Source: E-views9results, 2021

ROA=0.07334+0.03919*ATM+0.06638*MB+0.07899*AB+0.04276*POS+0.02814*IB+
0.09165*DC+0.02301*EFT + 0.05066*NSA

The coefficients of automatic teller machine a terminal, mobile banking, Point of sales, agent banking, credit card, electronic money transfer, and new saving account holders 0.03919, 0.06638, 0.07899, 0.04276, 0.02814, 0.09165, 0.02301, and 0.05066 respectively showsthatoneunit changesinautomatic teller machine a terminal, mobile banking, Point of sales, agent banking, credit card, electronic money transfer, and new saving account holderswillhave 0.03919, 0.06638, 0.07899, 0.04276, 0.02814, 0.09165, 0.02301, and 0.05066 change on the financialperformance of commercial bankswith thesamedirection respectively.

Discussions

To test these hypotheses, the study employed random-effect generalized least squares (GLS). By considering the research hypotheses in the literature review, the researcher discussed the findings of this study as follow:

The result in table 5 shows that there is a positive and significant relationship between the number of ATMs and ROA. An investment in ATMs leads to an increase in bank profitability (ROA). The p-value is less than 0.05; therefore the number of ATMs has a significant effect on the financial performance of commercial banks. The regression results as shown in Table 4.7 confirmed that the variable has a positive and statistically significant effect on ROA with a regression coefficient of (β= -0.03919) and the p-value is 0.0022 at a 1% significance level. So, the researcher accepted H1. This finding is consistent with findings of studies by Empirical studies such as Makur (2014); Mbevi,(2015); Mahilet (2018); Nyaga (2015); Nyambariga (2013). Lee et al., (2020), Githii&Mwangi (2018); Muia (2017); Temam.R. (2018); Mwawasaa&Ali(2020); Odhiambo&Ngaba (2019); Nekesa&Olweny (2018); Mwai (2021); found out that numbers of ATM terminals have a positive and significant effect on the financial performance of commercial banks in Ethiopia.

Concerning mobile banking, the regression result of this study showed that it has a positive and statistically significant effect on ROA with (β=0.06638) and is significant at a 1% level of significance because of the p-value of 0.0000<0.01. Therefore, the researcher accepted H2. This finding is similar to findings of studies by Makur (2014); Nyaga (2015); Nyambariga (2013).Lee et al., (2020),Githii&Mwangi (2018); Muia (2017); Nekesa&Olweny (2018); Mbevi,(2015); Mwai (2021); Masika (2019) found that mobile banking has a positive effect on ROA.

Regression result as shown in the above table 5, agent banking has positive and statistically significant effects on the financial performance of the private commercial banks in Ethiopia with regression coefficient (β =0.07899) at 1% significance level since p-value of (0.000) <0.01. So the researcher accepted H3. This finding is consistent with findings of empirical studies such as Makur (2014); Nyaga (2015); Nyambariga (2013); Lee et al.,(2020), Mbevi,(2015); Mwawasaa&Ali(2020); Githii&Mwangi (2018); Muia (2017); Nekesa&Olweny (2018); Odhiambo&Ngaba (2019); Simboley (2017); Mwai (2021); who concluded that increase in agent banking improves success.

When it comes to posting of sales terminals, the regression result of this study showed that it has a positive and statistically significant effect on ROA banks with (β = 0.04276) and is significant at a 1% level of significance because the p-value of 0.0004<0.01. Therefore, the researcher accepted H4. This finding is consistent with the regression result of Makur (2014); Nyaga (2015); Nyambariga (2013); Lee et al., (2020), Githii&Mwangi (2018); Muia (2017); Temam.R. (2018); Mwawasaa&Ali(2020); Nekesa&Olweny (2018); Yasin(2018); Odhiambo, S. O., &Ngaba, D. (2019) which supports that financial innovation has a positive influence on the profitability of commercial banks. This supports the researcher's expectation (H4) which is there is a positive relationship between post-sale terminals and the financial performance (ROA) of commercial banks in Ethiopia.

Additionally, this study confirmed that internet banking with a regression result of (β= 0.02814) has a positive and statistically significant effect on the financial performance of commercial banks at a 5% level of significance because of a p-value of 0.030<0.05. Hence, the researcher accepted H5. This finding is supported by Nyaga (2015); Nyambariga (2013). Lee et al., (2020), Githii&Mwangi (2018); Muia (2017);Nekesa&Olweny (2018); Temam.R. (2018); Mwawasaa&Ali(2020); Nekesa&Olweny (2018);Siddik, Sun, Kabiraj., Shanmugan, &Yanjuan (2016); Yasin(2018);Simboley (2017), Odhiambo&Ngaba, D. (2019); It can be concluded that the internet banking has its own role on financial performance. The researcher founds that, it has a positive relationship with financial performance when the banks have internet banking.

Concerning debit cards, the regression result of this study evidenced that the variable has a positive impact on financial performance at a 5% significance level. Because the p-value of 0.0001 is less than 5%. So the researcher was accepted H6. The finding is similar to studies by Nyambariga (2013). Lee et al., (2020), Githii&Mwangi (2018); Muia (2017); Temam.R. (2018); Nekesa&Olweny (2018); Odhiambo&Ngaba (2019); Mbevi,(2015); Mwai (2021) who found that debit card has statistically significantpredictor variable.

The regression result concerning electronic fund transfer with a regression coefficient of (β= 0.02301) showed that bank liquidity harms the financial performance of private commercial banks. Because the p-value of 0.0341 is less than 5%. So the researcher accepted H7. The researcher findings supported by Mwawasaa&Ali(2020); Nekesa&Olweny (2018);Siddik, Sun, Kabiraj., Shanmugan, &Yanjuan (2016); Yasin(2018);Simboley (2017), Odhiambo&Ngaba, D. (2019); has found that there is a significant and positive impact on the bank performance (ROA).

Furthermore, this study confirmed that new saving account holders with a regression coefficient of (β=0.05066) have a positive and statistically significant effect on the financial performance of private commercial at a 1% level of significance because of a p-value of 0.0078<0.01. Hence, the researcher accepted H10. This finding is supported by an empirical study by Nyambariga (2013). Lee et al., (2020), Githii&Mwangi (2018); Muia (2017); Temam.R. (2018); Nekesa&Olweny (2018); Odhiambo&Ngaba (2019); Mbevi,(2015); Mwai (2021) who finds out a significant positive relationship between many new saving account holders and banks financial performance.

6. Conclusion

The study concluded that financial innovation has a positive impact on the financial performanceof commercial banks operating in Ethiopia. So it is constructive for commercial banks to give attention for innovations to compete in global banking industry.

New doors for Further Research

This study was not an end to itself. Many issues arise from the findings and may require further research to address them. For instance, a study can be carried out to establish the other factors that can explain the 27.06 percent variation in the ROA regression model. Researchers can conduct further study by including more organization-specific, industry-specific and macroeconomic variables that affect the financial performance of all banks of Ethiopia.And they can be carried out by increasing the sample size by incorporating more private and government banks. This same study may be replicated later to find out if the situation remains the same or there will be substantial changes. Future researchers can conduct a comparative study of government banks and other private commercial banks in Ethiopia.

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