ESI Preprints **Not Peer-reviewed**

The Influence of Digital Financial Services on the Financial Inclusion by Commercial Banks in Cameroon

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Doi: 10.19044/esipreprint.3.2023.p381

Approved: 25 March 2023
Posted: 27 March 2023

Cite As:
Beloke N.B. (2023). *The Influence of Digital Financial Services on the Financial Inclusion by Commercial Banks in Cameroon.* ESI Preprints.
https://doi.org/10.19044/esipreprint.3.2023.p381

Abstract

Every nation needs a vibrant and strong banking system for growth and development. Banks are expected to move with time and adapt with the fast changes in technological advancement. Banks will only have to adapt to technological changes or go bankrupt. They must meet the unending needs and expectations of their customers and the society at large. Today, banks have a role in enhancing their own quota in financial inclusion (Social Performance) through the provision of digital financial services which is defined as the formal provision of banking services to the unbanked. This is a very rare area in academic literature as most studies focused on the financial performances of banks leaving out their efforts played to achieve financial inclusion an aspect of social performance to their credit. This paper sought to determine the influence of Digital Financial Services on the Performance of Commercial Banks in Cameroon. Specifically, it assesses the influence of Digital Savings Services, Digital Transfer Services, Digital Withdrawal Services and Digital Payment Services of commercial banks on their social performance (financial inclusion). Primary data was obtained through the administration of questionnaires and the average responses of four bank staff at management levels of the headquarters of each of the 10 commercial banks under study in Cameroon were used. After testing for validity, reliability, multicollinearity and heteroskedasticity and using the Feasible Generalised Least Square (FGLS) estimation technique, the

following were the findings. Results revealed that, digital transfers' services, digital savings services, and digital withdrawals services, positively influence financial inclusion by commercial banks with only digital savings services being statistical significant. Digital payment services had a negative and insignificant influence on financial inclusion fostered by banks in Cameroon. In conclusion, digital financial services of commercial banks influence banks' social performance. This paper therefore recommended that management of banks and policy makers in the banking industry should consider investing in robust digital financial services, so as to enhance access to their service and to contribute their own quota in ensuring the unbanked have access to formal financial services. This will have a ripple effect on the sustainable growth and development of the economy given the vital role banks play in every nation.

Keywords: Digital Financial Services, Commercial Banks and Financial Inclusion

Introduction

The revolution of information technology (IT) has changed every aspect of a human being's life, including banking. As such, banks have started looking for and leveraging the relationship with customers by developing their business models so as to perform better on the following main characteristics: to offer services that are simple to understand, to be transparent in the provision of their services, to acquire customers at ease, ease of service distribution, commercial attractiveness, and offer specialized services (Omarini, 2017).

Defining Digital Financial Services, it is the provision of a broad range of financial services that can be accessed and delivered through digital channels in order to execute financial transactions such as payments, savings, remittances and insurance (Kambale, nd). In line with financial inclusion, this paper adopts and defines financial inclusion from the supply side approach (commercial bank's perspective) and from the lens of the World Bank Report (2015), to mean the formal provision of financial services by commercial banks to facilitate the accessibility, usage, quality and cost affordable provision of financial services that meet the needs of the general population in a sustainable mannerDigital financial services has enabled accessibility of about 1.6 billion unbanked people in the developing countries which represent more than half of them women. It also leads to an additional $2.1 trillion of loans to individuals and other businesses because providers now have new found ability to assess credit risk for a large pool of borrowers. Furthermore, due to digital financial services, Governments gain $110 billion per year through reduced losses due to the many shortcomings

in the system in Government expenditure and tax collection (McKinsey Global Institute, 2016). Again, providers of banking services benefit since they stand to save annually $400 billion in direct cost by shifting from traditional to digital accounts which represents 80% to 90% less costly to their services. Through the expansion of their customer base, providers can increase revenue generating opportunities which could lead to an increase in their balance sheets as much as $4.2 trillion (Manyika *et al.*, 2016).

Africa is fast gaining grounds for digital financial service deployments than other regions in the world today. This is evident because, ten years after the breakthrough of digital financial services in Sub-Saharan Africa (SSA), there are about half of nearly 700 million individual users worldwide (Le Houerou, 2018). In Kenya for example the M-Pesa (a mobile banking service that allows users to keep and transfer money using their mobile phones) is the main instrument that has greatly achieved financial inclusion for the Kenyan population. It was introduced in 2007 and it profoundly changed the financial system of Kenya. Statistics shows that, through M.Pesa, financial inclusion increased from 26.4% in 2006 to 40.5% in 2009 and the level of financial exclusion reduced profoundly from 39.3% to 33% (Ozili, 2020).

The financial system in CEMAC is predominantly bank oriented and owned mostly by foreigners. Cameroon and Gabon, the two largest economic powers in the sub-region, account for about three fourths (3/4) of total assets and loans (Saab and Vacher, 2007). The financial inclusion of Gabon has been significantly improved in recent years due to the advent of modern financial institutions and new banking services including mobile banking. The country's rate of financial inclusion was 33% in 2014, the highest rate in CEMAC and similar to the rates in the rest of Sub-Saharan Africa (34%) (European Investment Bank, 2016).

In Cameroon, the first signs of digital financial services started in the early 2000 despite the presence of electronic funds transfer mode like the Society for Worldwide Interbank Financial Telecommunication (SWIFT) to effect international transfers in the nineties by international banks and some domestic owned banks. In the early 2000s Standard Chartered Bank in Cameroon started offering high quality banking services to financially rich and able firms like “Caisse Autonome d`Amortissement” (CAA) and a good number of international NGOs and Embassies (Ayuketang, 2018).

Eco-bank was the first bank in Cameroon that enabled cash withdrawal at ATMs without a banking card. With Eco-bank Xpress cash, money can be sent to anyone or withdrawals can be done without a card, at any Eco-bank ATM. An online banking solution known as Eco-Bank Mobile App is a banking solution for individuals and businesses. With this digital

strategy, Eco-bank will therefore be able to reach out and serve more people in Cameroon, even those without a bank account (Bahri-Domon, 2018).
Generally, Cameroon displays a relatively fair but feeble performance in terms of digital financial services as compared to its regional peers and its digital financial services is low compared to advanced countries. Cameroon's digital financial service market and financial inclusion is at the start up stage (World Bank Group, 2019).

Statement of Problem

Digital financial services are currently an innovative business model embraced by commercial banks in Cameroon to survive the exertion of competitive pressure in the industry. Though with this in mind, it is also very difficult to determine the extent to which this business model is supporting the performance of the industry. Digital financial services are currently an innovative business model embraced by commercial banks in Cameroon to survive the exertion of competitive pressure in the industry. Though with this in mind, it is also very difficult to determine the extent to which this business model is supporting the performance of the industry. The country's diagnosis on digitalisation from the World Bank Group (2020) indicated that about one third of Cameroonians are still excluded from financial services. Despite a level of account ownership of above 34%, Cameroon still scores far below the average Sub-Saharan African countries with a 42.6%, 3.64 ATMs per 100, 000 adults and 65% of Cameroonians who still remain unbanked (World Bank Report, 2014). World Bank Statistics (2019) revealed that the number of bank account holders per 1000 population in Cameroon as from 2004 to 2017 were as follows; 1.16587, 36.47020, 40.50450, 42.20430, 45.82420, 43.31280, 53.19580, 49.65850, 52.50370, 59.53200, 66.34930,83.41090, 87.14170, 82.77740. Despite a level of account ownership of above 34%, Cameroon still scores far below the average Sub-Saharan African countries with a 42.6%, 3.64 ATMs per 100, 000 adults and 65% of Cameroonians who still remain unbanked (World Bank Report, 2014).

It is in this light that this study seeks to determine whether the offering of digital banking services by commercial banks in Cameroon serves as a solution to reduce the 65% of the unbanked Cameroonian population (World Bank, 2016). The main research dilemma is thus explicitly reported through the following research questions, research objectives and research hypotheses.

Statistical Hypotheses

To guide the progress of this paper, the statistical hypotheses is thus expressed as; Digital Savings Services, Digital Transfers Services,

Digital Withdrawals Services and Digital Payment Services have no influence on the financial inclusion by commercial banks in Cameroon.

Literature Review

Empirical Literature

Existing literature on digital financial services and its influence on financial inclusion by banks are scarce. This will limit the extent of reviewed literature in this study. Durai and Stella (2019) researched on Digital Finance and its impact on financial inclusion. The objective of the study was to identify the impact of digital finance in bringing about financial inclusion among people. Digital finance included internet banking, mobile banking, mobile wallets (apps), credit card and debit card. Financial inclusion used in the study were convenience, adaptability, affordability, security, user-friendly, low service charge, accurate timing, online monthly statement, quick financial decision making, easy interbank account facility, internet connectivity, and usability. The questionnaires were well structured and prepared for the collection of primary data. The statistical techniques used for analyzing the data were One way ANOVA and Reliability test. From the findings, usability, convenience, accurate timing, and easy interbank account facility impacted mobile banking, low service charge and accurate timing positively and significantly impacts on mobile wallets (apps). Low service charge also had a positive impact on the credit card. They concluded that Digital Finance plays a vital role in the day to day activities of the people so every human being intends to avail the facility of digital finance in their lives.

Kithinji (2017) looked at the effect of digital banking strategy on financial inclusion amongst Commercial Banks in Kenya. The main objective of the study was to determine the effect of digital financial strategies measure using; mobile banking strategy investment, ATM banking strategy investment, agency banking strategy investment and online banking strategy investment on financial inclusion proxied by number of bank accounts, deposits value, number of branch networks or outlets and number of customers. The study used secondary data from the Central Banks of Kenya annual report between 2012 -2016 for all the commercial banks in Kenya, 42 in number. In analyzing the quantitative data, the study used descriptive statistics and regression analysis while qualitative data was analysed using content analysis. From the findings, it was concluded that, commercial banks in Kenya had adopted diverse digital banking strategies to not only ensure their sustainability but also to reach the unbanked people in Kenya. The digital banking strategy had a significant effect on financial inclusion amongst commercial banks in Kenya. There was a significant positive change in financial inclusion over the 5 year period. The most

significant banking strategy was mobile banking followed by ATM Banking, agency banking and online banking respectively. To recommend, there is need for management of commercial banks to work closely with the telecommunication players to increase the uptake of mobile banking. The Government through her ministries also needs to continue investing in internet connectivity to enhance the accessibility to online banking. The bank management should constantly review their agency policy to increase the number of agents for increased financial inclusion. Also, there is need for commercial banks to continue investing on the modern ATMs that permits them offer diverse banking services hence increasing banking of the unbanked.

Agufa (2014) researched on the influence of digital financial services on financial inclusion in the banking industry in Kenya. Specifically, the researcher's objective was to determine whether agency banking, mobile banking and internet banking influence financial inclusion of Kenyan bank. Financial inclusion was proxied using credit penetration. The study made use of descriptive research design. Target population for the study comprised of 44 banks in Kenya which was made up of 43 commercial banks and 1 mortgage financial institution as at 31/12/2015. It made use of a sample of 13 banking institutions which were purposively selected to represent the 13 banking institutions in Kenya because they offer all three digital financial services. Secondary data was obtained for a 5 year period i.e.2011 to 2015. It was further analysed using regression and correlation analysis. The findings from the study showed an insignificant and negative relationship between agency banking agency banking measured in terms of number of agents, mobile banking proxied using number of mobile banking transactions, while internet banking as measured using internet banking transactions. Data was obtained for a period of 5 years i.e. 2011 to 2015. In conclusion, digital finance does not have any correlation on financial inclusion in the banking sector in Kenya because banking institutions adopt digital financial services to improve upon their profit levels and lower their operation cost associated with opening and operating branches and not to foster financial inclusion. It thus recommended that to ensure the usage and adoption of digital financial services, there should be more awareness of the digital banking services offered by banks. These services should be offered at lower cost in order to enhance the usage of digital financial services.

Theoretical Literature

This section reviews the most prominent theory in line with the study's area of interest. It reviews one of the theories of financial inclusion as put forward by Ozili (2020) known as the System Theory of Financial Inclusion. It is the first of its kind theory on financial inclusion in the history

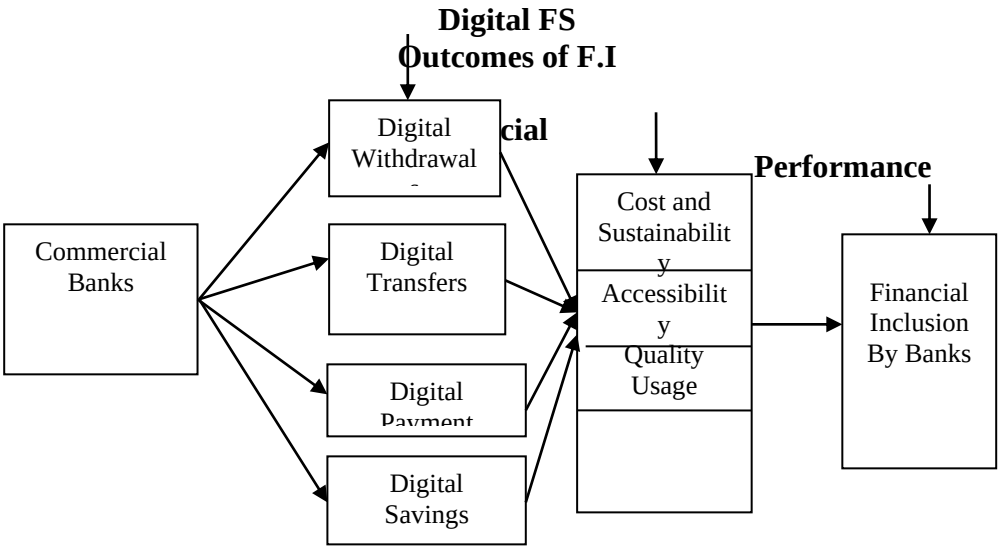
of academic literature despite contentions from other researchers that there was no need for any financial inclusion theory considering it as a waste of time and resources.. It is the only and most recent theory on financial inclusion. The theory has been designed diagrammatically to include the variables of interest of this study.

The Systems theory of Financial Inclusion

The systems theory of financial inclusion holds that, the outcomes of financial inclusion are achieved through the existing subsystems such as the economic, social and financial sub systems which financial inclusion depends on and as such greater financial inclusion will have positive benefits for the systems it relies on. When there is a significant change in a subsystem (economic, financial and social), it can have a significant effect on the expected outcomes of financial inclusion. As an example, when economic agents and suppliers of financial services who are part of the economic system and financial systems are imposed regulations by regulators, this can make them put their interest in the place of users of basic financial services which may prevent them (suppliers of financial services) from offering quality and affordable financial services to users that will align with defined rules protecting these users from being exploited and from price discrimination. However, if there is a significant change at national or full system level for example, changing the existing national financial inclusion plan with a totally new plan, does not make the existing subsystems to change since a change of the sub-system have to be done at the sub-system level.

The theory assumes that with financial inclusion, the workings of the subsystems that it relies on will be improved upon. The success of financial inclusion agenda will depend on the efficiency and effectiveness of the subsystem. The economic, financial and social subsystems are the main beneficiaries of financial inclusion from the systems theory perspective.

In the absence of a diagram to depict the above theory, this paper has made an attempt to represent the above explanation diagrammatically as seen below. It explains that given the provision of digital financial services by commercial banks, the outcome will be seen in terms of cost and sustainability by commercial banks in the long run, customers will have the ability to use formal financial services with minimum barriers to opening an account, there will be physical proximity all at affordable cost (Accessibility). These services will match the needs of customers through continuous product development (Quality) and the result will be the regular, frequent and long time use of financial services (usage) which are all indicators of financial inclusion.



Source: Researcher's (2023)

3.0 Materials and methods

3.1 Methodological Steps

The main objective of this paper was to determine the influence of digital financial services on the financial inclusion by commercial banks in Cameroon. In testing the hypothesis, the following were the methodological steps employed

Step I: Type of research Design: This study made use of micro panel data (or longitudinal data) research design because the variables of interest were obtained from a sample of 10 commercial banks at more than one point in time (2014, 2016, 2018 and 2020).

Step II: Target Population of the study: The study's target population encompassed all 15 commercial banks in Cameroon.

Step III: Sampling Size and Sampling Technique. Questionnaires were administered to one top management from the 10 commercial banks under study at more than one point in time (2014, 2016, 2018 and 2020) at the Head Office. The Head office was used because digital banking data is highly centralized for all commercial banks and so reliable information could only be obtained from the Head Quarters of Banks and more so from top management. This paper made use of the non-probability sampling technique specifically purposive sampling. The purposive sampling technique, also called judgment sampling, is the deliberate choice of a participant due to the qualities the participants possess.

Step IV: Test for reliability and Validity of Research constructs/instruments; an item by item internal consistency test was carried to determine the reliability of the constructs using Stata version 16 while content validity was used to test for the validity of the constructs under study.

Step V: Administration of questionnaires to 10 top level management of bank staff working at the Head Offices

Step VI: Data Collection**:** Data from the questionnaire was recorded and coded using Sata Version 16.

Step VII: Regression Model Used**:** The model used in this paper was adopted and modified from a similar study by Ngumi (2013).

Step VIII: Method of Data Analysis: Data for this paper was anaylised using Panel Data Regression Analysis**.** Panel data analyses are used when the multiple individuals are observed repeatedly over multiple periods in time in this case for a period of four years i.e. 2014, 2016, 2018 and 2020. **.** The averages of the items were calculated using principal component analysis. The PCA is a dimensionality reduction method and it was used to reduce the dimensionality of the study's data set in order to have smaller responses that still contained most of the information. This is the reason why the total observations summed up to 40 given that 10 commercial banks made up the sample size and same questions were asked over a period of four years.

Step IX: Estimation Technique**:** To estimate the values of the parameters in the study's regression model, the Feasible Method of Generalized Least Square Technique was used. This technique was chosen over the ordinary least square or the weighted least square technique due to the presence of cross sectional dependence in the data set.

3.2 Data Collection

This study made use of a survey research design through the issue of questionnaires to specific bank staff particularly 10 top management working in the Head Office of all 10 commercial banks under study. It also made use of the non-probability sampling technique known as purposive sampling. This sampling technique is also called judgment sampling, is the deliberate choice of a participant because of some specific qualities the participant possesses. The reason here is to look for those who can and are willing to better assist with the relevant information (Etikan, Musa & Alkassim, 2016).

As such, only top management of banks working at the Head Quarters of all commercial banks under study were chosen to respond to the questions in the questionnaire. They were chosen because they are believed to have more reliable information when it comes to digital financial services

of their institutions. Furthermore, given the issue of centralization of digital financial information of banks, they have access to such information since they use it for strategic decision making and can better appreciation how their digital financial services contribute towards financial inclusion.

Out of 15 questionnaires sent out to the head quarters of all 15 commercial banks in Cameroon, 10 banks responded positively giving a response rate of 66.67% with no missing value. This was possible because the respondents answered the questions in the presence of the researcher and so the researcher followed up to make sure that the respondents answered all the questions in the questionnaire. Each question on the questionnaire was asked repeatedly over a period of four years i.e. 2014, 2016, 2018 and 2020. To designed the questionnaire, the study made use of five point Likert scale questions to capture the constructs of digital financial services. For each of the constructs, a set of five questions were asked

Out of the 10 respondents, (9), 90% of the respondents at management level were males and (1), 10% was Female. This indicated that more men occupied top management positions in banks than women as at the time of collecting the data. Age wise, 1 (10%) of the bank staff fell within the age group 31 to 40, followed by 9(90%) who were between the age group of 41 to 50. On certification, 2 (20%) were holders of Master's Degree and 8(80%) held certificates above master's degree. This study also examined the respondents according to their marital status. No respondent indicated being single or divorced (0%). All 10 (100%) respondents indicated they were married. Amongst the respondents, 6 (60%) had worked in the bank for a period between 7-9 years while 4(40%) had worked for a period above 10 years.

10 out of 15 commercial banks were used for this study. They include; NFC Bank, Eco-Bank, SGBC Bank, CCA Bank, Afriland First Bank, UBC Bank, BICEC Bank, UBA Bank, Standard Chartered Bank, and Atlantic Bank. There were three respondents from each bank.

The time scope for this study is within a period of five years from 2016 to 2021. The Geographical scope is limited only to commercial banks in Cameroon offering digital financial services. In the light of content scope, the variables used in this study are limited only to digital financial services such as digital savings, digital withdrawals, Digital Transfers and Digital savings services while performance of commercial banks is limited to social performance (Financial Inclusion by Banks). Financial Inclusion theories specifically the System Theory of Financial Inclusion was the main theory reviewed in this study.

Model Analysis

The model of analysis that was used to examine the influence of digital financial services on the financial inclusion of commercial banks in Cameroon is as follows; an item by item internal consistency test was carried out to determine the reliability of the constructs. As seen from the table below, it shows a summary of the reliability test for the influence of digital financial services on the financial inclusion of commercial banks in Cameroon.

Table 1. Reliability statistics of constructs

Variables	Number of items	Cronbach's Alpha	Split-Half Coefficients
Digital Payments	5	0.735	0.757
Digital Withdrawals	4	0.672	0.759
Digital Savings	5	0.815	0.770
Digital Transfers	5	0.772	0.744
Financial Performance	5	0.607	0.728
Financial Inclusion	5	0.668	0.769

Source: Computed by author (June, 2021) using Stata Version 16

Specific Objective: To determine the influence of digital transfer services, digital payment services, digital withdrawal services and digital savings services on the financial inclusion by Commercial Banks in Cameroon**.**

Five point Likert scale questionnaire were produced in an ordinal scale data**.** To decide whether to use fixed effects model or random effects model, the Hausman-Test was performed. From the Hausman test results since the Prob>Chi^2 =0.1034, there is every reason to believe that differences across entities (commercial banks) are assumed to be random and uncorrelated with the independent variable included in the model. Therefore, the random effects model becomes appropriate for this study (Reyna-Torres, 2007).

Estimation and Validation Techniques

Again, to estimate the values of the parameters in the study's regression model, the Feasible Method of Generalized Least Square Technique was used. This technique was chosen over the ordinary least square or the weighted least square technique due to the presence of cross sectional dependence in the micro panel data set.

The main validation tool for this study was the Chi square test of significance generated by the Wald test. It works by testing the null hypothesis that the variables in our model are best fit.

The study adopted a micro panel data model specifically Random Effect Model as seen below.

Specific Random Effect Model:

$FI_{it} = \alpha_0 + \alpha_1 DTS_{it} + \alpha_2 DSS_{it} + \alpha_3 DWS_{it} + \alpha_4 DPS_{it} + \alpha_5 LS_{it} + \mu_{it} + \Sigma_{it}$ …….(1)

Where;

i= entity and *t* =time

FI = Financial Inclusion; to mean the provision of formal banking services to the unbanked by commercial banks.

DTS = Digital Transfer Services; to mean as non cash transfers to third parties from one account to another

DSS = Digital Savings Services; to mean services rendered by banks which allow an account holder to deposit money electronically into an account.

DWS = Digital Withdrawal Services; to mean services rendered by banks which allow an account holder to deposit money electronically into a savings account

DPS = Digital Payment Services; to mean payments services made through digital channels

LS = Longevity in Service used as control variable; to mean the number of years of working experience in an institution by staff at management levels.

The following were the a priories;

$\alpha_0 \neq 0$, $\alpha_1 > 0$, $\alpha_2 > 0$, $\alpha_3 > 0$, $\alpha_4 > 0$, $\alpha_5 > 0$ where;

α_0, is the constant intercept, α_1, α_2, α_3, α_4, and $\alpha_5 > 0$are unknown parameters to be estimated

μ_{it} = Between-entity error

Σ_{it} = Within-entity error or the white noise Error Correction (EC) term which is a self-correcting mechanism of the dependent variable from its long run trend.

Techniques of data analysis

This study was set to determine the influence of digital financial services on the financial inclusion by commercial banks in Cameroon. In order to meet this objective, the variables identified from related literature were estimated using the Feasible Method of Generalized Least Square Technique. This gave the need to generalize and establish the findings by carrying out multicollinearity test of variables using the Variance Inflation Factor.

Correlation Matrix

Given the survey nature of the data, a multicollinearity test a sensitivity test was carried out in order to test the extent to which the independent variables of the study correlate with each other in order since high correlation will lead to unbiased results. This is depicted from the Variance Inflation (VIF) table below;

VIF Test for Multicollinearity

Variables	**VIF**	**1/VIF**
Digital Savings	8.94	0.111832
Digital Transfer	6.9	0.14487
Digital Withdrawal	5.54	0.180629
Digital Payment	5.31	0.188347
Longevity in service	1	0.995694
Mean VIF	**5.54**	

Heckman (2015) rule of thumb states that if a VIF is >10, then there is the presence of high multicollinearity amongst the independent variables. From the VIF table above, a mean VIF of 5.54 signifies the absence of multicollinearity amongst the independent variables .This confirms the assumption of no multicollinearity among the independent variables in the regression model. The regression model is thus stated next.

The Regression Model

This study made use of the Micro Panel Data Regression model specifically the Random Effect model stated as;

$FI_{it} = \alpha_0 + \alpha_1 DTS_{it} + \alpha_2 DSS_{it} + \alpha_3 DWS_{it} + \alpha_4 DPS_{it} + \alpha_5 LS_{it} + \mu_{it} + \Sigma_{it}$ …….(2)

From the above model, Financial Inclusion (FI) is the dependent variable measured by asking questions that captured commercial banks provision of digital services that can enhance the formal provision of banking services to the unbanked. The independent variables included in the study were; Digital Savings Services (DSS), Digital Transfer Services (DTS), Digital Withdrawal Services (DWS), and Digital Payment Services (DPS) while µi represents the error term.

Significance of the Model and Model Summary

To test the goodness of the model, the Wald test also known as the Wald Chi-Square test was used. The forecasting power or goodness of fit of variables in the model was confirmed by the significance of the Prob > chi2

0.0000, Wald chi2 (5) =130.36 and the Log likelihood = 8.687921. The Wald test in theory approximates the Likelihood test. Both works by testing the null hypothesis that the variables in our model were best fit since P.value <0.0000

Panel Data Regression Results for Financial Inclusion

Variables						
Financial Inclusion	**Coef.**	**Std. Err.**	**z**	**P>z**	**[95% Conf.**	**Interval]**
Digital transfers Services	0.083556	0.127412	0.66	0.512	-0.16617	0.333279
Digital savings Services	0.316751	0.111293	2.85	0.004***	0.098621	0.534881
Digital withdrawals Services	0.073056	0.127577	0.57	0.567	-0.17699	0.323103
Digital payment Services	-0.01524	0.117527	-0.13	0.897	-0.24559	0.215105
Longevity in service	0.185253	0.07714	2.4	0.016	0.034061	0.336445
_cons	1.880367	0.476342	3.95	0	0.946754	2.81398
Autocorrelation = 0 Number of Observations: 40 Number of Groups: 10 Time Period: 4 Wald $Chi^2(5)$: 130.36 Log Likelihood: 8.687921 Prob> Chi^2: 0.0000						

Sources: Computed by author (2021) using stata Version 16
Note: ***=1%, **5% and *=10% level of statistical significance

Summary of Findings

The above table shows the final results in terms of the coefficients, the standard error, significance and overall goodness of fit or significance of the inclusion of the variables in the model.

Digital transfer services positively influenced financial inclusion by commercial banks in Cameroon in that a unit increases in the provision of digital transfer services results to a 0.083556 standard increase in financial inclusion facilitated by banks. This is in line with the apriori expectation of the study. However, it is statistically insignificant at 10% level given that the p.value 0.512 was more than 10% threshold. Thus we failed to reject the null hypothesis that digital transfer services have no influence on the financial inclusion by commercial banks in Cameroon. As a result, less consideration should be given to digital transfer services by commercial banks when examining measures to improve financial inclusion.

In addition and in accordance with the apriori expectation, digital savings services initiated by commercial banks in Cameroon had a positive influence on financial inclusion. Precisely, a unit increase in the provision of digital savings services by banks leads to a 0.316751 unit increase in financial inclusion. This is statistically significant at 1% level since it had a p.value of 0.004 less than 1%. Thus the null hypothesis that digital savings services have no influence on financial inclusion fostered by commercial banks in Cameroon was rejected. It is therefore of great interest for policy makers of banks and bank regulators to know that digital savings services are an important component of financial inclusion promoted by commercial banks in Cameroon.

Furthermore, the regression result revealed that the provision of digital withdrawal services fostered by commercial banks had a positive influence on financial inclusion. This means that a unit increase in the provision of digital withdrawals services by banks, will lead to a 0.073056 standard increase in the financial inclusion. This variable was not significant even at 10% level given a Pvalue of 0.567 more than 10%. This is however not in accordance with the apriori expectation of the study. Thus the study failed to reject the null hypothesis which states that digital withdrawals services have no influence on financial inclusion initiated by commercial banks in Cameroon. As a result, less focus should be given to digital withdrawal services when examining measures commercial banks can use to contribute their own quota in fostering financial inclusion in Cameroon.

To add, the results on digital payment services indicated that a unit increase in digital payments services rendered by commercial banks will lead to a drop in financial inclusion by 0.01524units. This variable is statistically insignificant at 10% since the corresponding P.value 0.897 was more than 10% threshold. Thus the null hypothesis that states that digital payments services have no influence on the financial inclusion enhanced by commercial banks in Cameroon was accepted. Policy wise, little focus should be given to digital payments services when determining factors that influence financial inclusion by commercial banks in Cameroon.

Longevity in service used as a control variable had a coefficient of 0.185253. This means that a unit increase in number of years of experience within the institutions by management staff will lead to a 0.185253 unit increase in financial inclusion spearheaded by banks. This is significant at 5% level given a p.value of 0.016. This means that the more staff at management level spend more years of working experience in their institutions, the more they are able to influence the board of directors to offer diverse range of digital financial services which helps to foster financial inclusion.

Going by the constant term of 1.880367, it showed that financial inclusion initiated by commercial banks will be 1.880367 when all the independent or predictor variables are set to zero. This value is significant at 1% since it had a p.value 0.000 less than the 1% threshold.
The forecasting power or goodness of fit of variables in the model was confirmed by the significance of the Prob > chi2 0.0000, Wald chi2 (5) =130.36 and the Log likelihood = 8.687921. The Wald test in theory approximates the Likelihood test. Both works by testing the null hypothesis that the variables in our model were best fit since P.value <0.0000.

Conclusion

The main objective of this study was to investigate the influence of digital financial services on the performance of commercial banks in Cameroon. Digital financial services were proxied using bank digital withdrawal services, bank digital transfer services, bank digital payment services and bank digital savings services. Performance of commercial banks was measured using non financial performance (financial inclusion). Conceptually, the study adopted a standard definition of financial inclusion that was used throughout the work by adding sustainability to the already existing indicators of financial inclusion from the supply side perspective (commercial banks). Panel data regression analysis was used to analyse data after carrying out diagnosis test for reliability, validity and multicolliniearity of the independent variables. Feasible Generalised Least Square (FGLS) estimation technique was used to estimate the variables in the model while the Wald ch2 test was used to ascertain the goodness of fit of the variables in the study's model. From the results, digital financial services contribute to financial inclusion fostered by commercial banks or from commercial bank perspectives. Last but not the least, Longevity in service the control variable for this study, has a positive and significant influence on bank financial inclusion.

To recommend, this is a wake- up call for Management of commercial banks should continue offering and improving their digital financial services in order to contribute their own quota for financial inclusion. This will reduce the number of Cameroonians who do not have access to formal banking services. Bank managers should keep a track record on the number of their customers to know if they are increasing or decreasing. This will help them to know whether they are actually performing as seen from the number of customers who make use of their services and also should be within their expected time frame as seen in their digital financial service objectives. By offering digital financial services, commercial banks, join the campaign by the Government to make Cameroon a digital economy as mentioned by the president in his end of

year's speech in 2015 (www.cameroondigital.com, October, 2021), as well as the World Bank campaign on financial inclusion. With this, small businesses, companies, schools, hospitals, colleges and even individuals no matter their location will be able to use the digital services of banks for various transactions such as the payment of bills; payment of school fees all things being equal, thus enabling those in the rural areas in particular to make use of formal banking services everything being equal. Again, bank management should continue offering robust digital banking services. This will enable them work in line with the government in an effort to reduce the spread of COVID 19 as these services help to reduce the number of customers in the banking hall at particular time period.

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