The Effects of Financial Inclusion on Financial Performance of Financial Institutions in Cameroon

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Abstract

Purpose: This study seeks to investigate the effects of financial inclusion on the performance of financial institutions in Cameroon. Specifically, the study sought to examine the effects of access, availability and usage of banking services on the financial performance of financial institutions in Cameroon.

Methodology: A cross-sectional research design was applied with the use of purposive and convenience sampling methods. 210 respondents from 75 financial institutions in Cameroon were selected. Primary data was collected using a self-administered questionnaire. Data collected was sorted, coded and analyzed using the Statistical Package for Social Sciences (SPSS v22.0). Data collected was analysed descriptively with the use of mean and inferentially with the use of ordered logit regression model and Pearson correlation metrix to establish the relationship between the dependent variable and the independent variables and the results were presented in tables.

Findings: The results indicate that access to banking services, availability of banking services and usage of banking services positively influenced financial performance of financial institutions as measured by return on assets. Access to banking services and usage of banking services were identified as crucial factors in driving financial performance since they significantly influenced financial performance.

Contribution to Theory, Policy and Practice: The study therefore recommended that officials in Cameroon should prioritize financial inclusion by means of passing laws that encourages lending practices by financial institutions. Also bank management should focus strategies to augment their financial performance by improve access and usage of banking products.

Keywords: *Financial Inclusion, Financial Performance, Financial Institutions*

1.0 INTRODUCTION

A vibrant financial sector is made up of diversified financial securities, efficient financial institutions and a wide range of financial services. More specifically, the well-functioned financial sector looks for continuous adaptation, evolvement, and the diffusion of innovative financial assets, institution, and services along with easy access to financial services, and readily available for the population (Qamruzzaman and Wei, 2019). The role of financial inclusion in the financial system assist in improving financial institutions performance (Chipeta and Muthinja 2018). The relationship between the financial inclusion and banking performance is oblique and yet to test in empirical studies. Therefore, the following paragraphs have brought out and explore the contextual of financial inclusion in relation to financial performance.

Financial inclusion is considered as a key enabler to financial institution performance and economic growth and therefore stationed on the growth agenda of most developing nations as a priority. However, this concept has attracted different definition by academics. For instance, Sarma (2008) perceives financial inclusion as the ease with which financial services could be available, accessed, and affordable and used. According to Rangarajan (2008), financial inclusion is 'the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low-income groups at an affordable cost'. (Thorat, 2006) explained that financial inclusion implies providing affordable financial services such as access to payments and remittance facilities, savings, loans and insurance services by the formal financial systems to those who tend to be excluded. Fungacova and Weill (2014) view the concept of financial inclusion within the context of usage rather than the quality of services provided. However, the elementary understanding across these definitions places greater importance on access, usage, quality and availability. In this article, we adopt access and usage for the demand side and availability for the supply side as the working definition of financial inclusion.

This article explored the connection between banks' goals of making more returns/profits on the assets invested considering financial inclusion as key to facilitator to banks performance. The main objective is to determine if financial inclusion factors such as access, availability and usage of financial services influence banks' performance. This therefore necessitated us to ask whether financial inclusion affect the performance of financial institutions in Cameroon.

1.1 Problem Statement

Financial institutions are at the forefront of mobilising resources from surplus units to deficits units in an economy. Financial institutions integrate the unbanked population into the formal financial system by offering diversified financial services, assets and investment opportunities through financial inclusion process. Hence, attracting people into the financial system to benefit from financial services. Despite the undeniable importance of financial inclusion in explaining financial performance of the financial sector, the impact of financial inclusion on performance, is still misunderstood and untested. Several studies have been done in areas of financial inclusion and

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performance such as (Demirguc-Kunt et al., 2015), (Mujeri 2015) and (Barry,2018). Their findings have produced mixed results regarding the impact of financial inclusion on financial performance. It is at the context of such mixed conclusions that created and necessitated the need to carry out a study from a Cameroon perspective to establish the effect of financial inclusion on the performance of financial institutions.

Objectives of the Study

i.   To examine the effect of access to banking services on the financial performance of financial institutions.

ii.   To study the effect of availability of banking services on the financial performance of financial institutions.

iii.   To assess the effect of usage of banking services on the financial performance of financial institutions.

2.0 LITERATURE REVIEW

2.1 Theoretical Review

Agency Theory

Agency theory was developed by Jensen and Meckling (1976). Agency theory states that governance of a company is based on the conflicts of interest between the company's owners (shareholders), its managers and major providers of debt finance. According to Jensen and Meckling (1976), companies are important entities for providing relationships between people. As any theory, Agency theory is based on a number of assumptions that have a significant impact on the formation of the theory. This theory assumes that goal conflict exists between principals and agents and that agent have more information than their principals, which results in an information asymmetry between them (Waterman and Kenneth, 1998). Secondly, Manager (agent) tries to find an effective contractual arrangement that would lower the interest rate. For this study, where banks and borrowers/savers plays key roles within bank - client relationship framework, one scenarios exit. Given the above scenario, the principal (bank) can accept or deny the borrower's credit request. The agent is willing to accept the bank's announcement if he does or does not fulfil the bank's credit requirements. Those relationships involve the agency problems and cost concepts.

The key relevant of the agency theory is that its permits the bank to feel forced to hire an agent when the tasks are too complicated or too costly to conduct. The borrower therefore has special skills or knowledge required to perform the task in question. In return, bank motivates the borrower to perform the bank's preferences, considering the difficulties in monitoring the borrower's performance, the bank and the borrower sign a reward contract where the borrower chooses an action that the bank cannot control, even events beyond the borrower's control might happen. As

a result, the actions and events establish the borrower's performance which will then contribute to increasing the banks performance.

The main critique of this theory is that of the horizon problems which occur when an individual's objectives are fulfilled the net income generated by an asset and that fulfilment is shorter than the remaining productive life span of that asset. Therefore, the horizon problem creates a disincentive environment for members' investments that may contribute to growth opportunities (Cook, 1995) as cited in (Ochoa, 2006). Consequently, problems arise since the bank could have a short-term perspective and only focus on what benefits he/she may perceive in a short period. This could mitigate long-term prospect for growth opportunities.

Asymmetric Information Theory

The proponent of the asymmetric information theory was George Akerlof in 1970. The theory was later expanded by Michael Spence (1973), and Joseph Stiglitz (1976). The theory states that financial intermediaries can reduce information and transaction costs that arise from an information asymmetry between borrowers and lenders. Leland and Pyle (1977) formally show that a bank can communicate information to investors about potential borrowers at a lower cost than can individual borrowers. They focus on an ex ante information asymmetry, where borrowers borrowing money from the market know the expected returns of their own investment, but other agents find this information costly to observe. This results in a moral hazard problem since firms with low expected returns have an incentive to claim a high-expected return to increase their market valuation.

The weaknesses or potential problems introduced mostly have to do with the applications of the theory. The theory itself might be faulty in its simplistic assumptions. For example, the theory assumes that the borrower or depositor always know the average value of the loan or interest. This kind of information may not always be available, typically in the case of unique market items. Although there will probably still be an asymmetry information in these cases.

The main relevance of the agency theory is that depository financial institutions can mitigate their informational disadvantage and cause the issuance of any risky security to generate a negative abnormal return to the firm's equity. Further, informational asymmetries should lead banks to prefer internal to external funds and safe securities to risky ones. Hence asymmetric information provides a theoretical rational for 'hierarchy' models of capital structure. It is argued that banks will attempt to issue risky securities during periods when the level of asymmetric information is low.

Another relevance of the asymmetric information theory is the theory's ability to explain previously unexplained economic phenomena. Asymmetric information theory tells us that it may be impossible to distinguish good and bad quality, and this phenomenon can be used to explain, for example, the existence of counteracting market institutions. Similarly, the economic justification for regulating quality cannot be found from the traditional theories. Again, the theory

itself is simple to understand and utilize. The concept seems like "common sense" and is easy to understand. The complexity of analysis only comes from choosing a complex mathematical model to model the asymmetries of an application domain (Auronen, 2003).

Financial Intermediation Theory

The theory of financial intermediation was developed starting with the work of Gurley and Shaw in 1960. The financial intermediation theory is based on the theory of informational asymmetry and the agency theory. In principle, the existence of financial intermediaries is explained by the existence of the following categories of factors: high cost of transaction, lack of complete information in useful time; and the method of regulation. Information asymmetry argument constitutes the most used factors in financial intermediation studies. Asymmetry could be ex ante in nature generating the problem of adverse selection, be interim in nature generating moral hazard, and ex post in nature, resulting in auditing or costly state verification and enforcement. The informational asymmetries generate market imperfections of the market thereby deviating from the neoclassical framework (theory of perfect markets).

According to the model of perfect financial markets in the neo -classical theory, the following assumptions holds, no one participant can influence the prices, the placement/borrowing conditions are identical for all participants, there are no discriminatory fees, the lack of competitive advantages at the level of participants, all financial securities are homogeneous, dividable and transactional; there are no transaction costs for obtaining information or of insolvency, all participants have immediate aces to the complete information regarding the factors and elements that can influence the current or future value of the financial instruments. The process of financial intermediation could be seen as that of the transfer of funds from agencies with surplus to agencies with deficit through financial intermediaries. The analysis of financial institutions that achieve the financial intermediation can be made from one perspective in this study wherein the financial intermediaries are commercial microfinance institutions.

All studies on the reasons behind financial intermediation focus on the functioning of intermediaries in the intermediation process; they do not examine the existence of the real-world intermediaries as such. It appears that the latter issue is regarded to be dealt with when satisfactory answers on the former are being provided. Thus, this study is aim at bridging that gap and look at how financial institutions intermediate in providing their services to the low income and poor population.

The core relevance of financial intermediation theory is that financial intermediaries appear to overcome partially transaction costs by taking legal agents action of those who saves. Thus, those who save end up trust their available funds to these intermediaries in order to be invested in whichever projects they consider viable, the depositors having the possibility to withdraw their funds at any time under the pre-established conditions thereby discipline the financial intermediary

in it monitoring function and thereby limiting excessive lending that could reduce the performance of the institution.

2.2 Conceptual Framework

The paper proposed that the financial performance of financial institutions is determined by access, availability and usage of banking services as captured in figure 1.
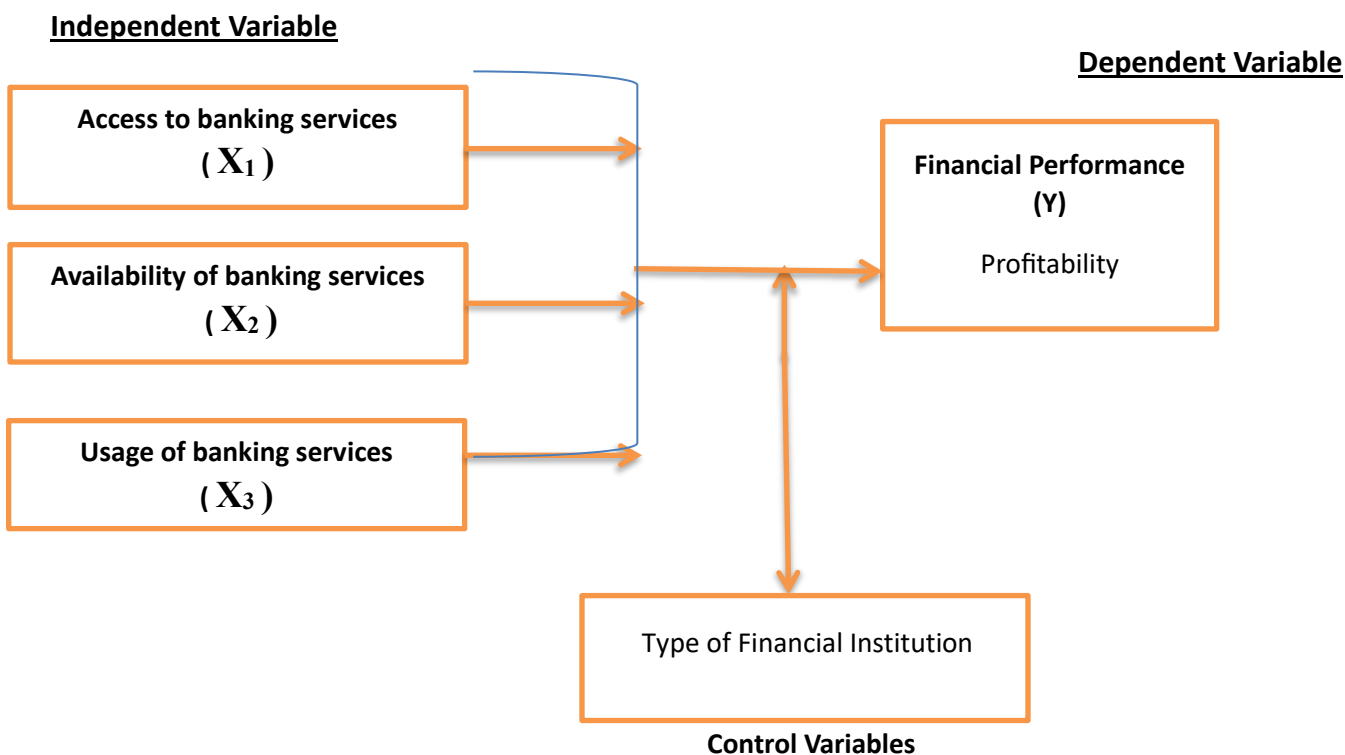
Independent Variable

Dependent Variable

Access to banking services
(X_1)

Availability of banking services
(X_2)

Usage of banking services
(X_3)

Financial Performance (Y)

Profitability

Type of Financial Institution

Control Variables

Figure 1: Conceptual Framework

Source; Researcher (2023)

Access to Banking Services

Access refers to the ability to use financial products and services, taking into consideration physical proximity, affordability, and eligibility (Ledgerwood, 2015). It provides an insight and analysis of potential barriers to opening and using of bank account such as cost, physical proximity of bank branches, etc. In measuring the level of accessibility, the survey will try to cover factors as information accessibility, and physical accessibility. Demirguc Kunt and Klapper, 2013; Camara and Tuesta, 2014; Sarma, 2008, 2011; and World Bank, 2012, 2014 establish a link between access and financial inclusion.

Khatib et al (2022) investigated the influence of financial inclusion on the performance of banking sector in Palestine. Panel data from 11 banks were utilised from 2012 to 2020. The results showed that access to financial services such as number of automated teller machines (ATMs) and the number of bank branches, service delivery and the quality of the products significantly influenced banks' profitability, though point-of-sale terminals have no impact on profitability. Shihadeh (2021) examined the relationship between financial inclusion indicators and bank performance in Palestine. Data was collected from all 15 banks operating in Palestine over the period 10 years with panel data from 162 observations and found out that banking penetration tools, branching and ATMs, could improve bank performance and concluded that financial inclusion has a significant effect on the performance of banks in Palestine.

Availability of Banking Services

It is described as services which bank is providing. It includes services such as loan, overdraft, insurance, pass book, debit card, etc. In measuring the level of availability the survey will try to cover factors as loan availability, support assistance services and promotion. Sarma (2008) in her concept note of Index of Financial Inclusion considers availability of financial services as measured by the number of bank branches and number of ATMs per 1000 population.

Shihadeh (2020) investigated the influence of financial inclusion factors on banks' performance and risk among MENAP countries. The results indicate that enhancing the level of financial inclusion in the MENAP can increase banks' performance and decrease their risk, though it influences on ROA was insignificance. Shihadeh and Liu (2019) examined whether financial inclusion influences banks' performance and risks. Data from BankScope, World Bank economic development, and financial development databases for 189 countries and 701 banks were used and the results revealed that enhancing financial inclusion tools such as branches might assist the banks to achieve more return and decrease the risks.

Bigirimana and Hongyi (2018) investigated the role played by commercial banks on financial inclusion Secondary data on dimensions of financial inclusion for 13 years from 2004 to 2016. and primary data was collected on 500 respondents from Rwanda on commercial banks. The results revealed that commercial banks have significantly contributed to financial inclusion in Rwanda from 2004 to 2016 since access, penetration and usage of commercial banks have shown an increase in the period under study. Harelimana (2016) evaluated the implementation of financial inclusion in microfinance institutions in Rwanda. The findings showed that the number of active debtors, loan disbursed and portfolio rotation have positive effects on the Operational self-sufficiency of Clecam Ejoheza Kamonyi

Usage of Banking Services

Usage refers to the actual use of financial services and products (Ledgerwood, 2015). It is related to regularity, frequency and length of time used. It focuses on the depth and extent of financial service or product. This factor envisages your frequent use credit facilities and whether you are a

regular visitor of the bank. Gupte et al. (2012), Demirguc Kunt and Klapper, 2013; Camara and Tuesta, 2014; Sarma, 2008, 2011; and World Bank, 2012,2014 establish a link between usage and financial inclusion.

Chauvet and Jacolin (2017) investigated the impact of financial inclusion and bank concentration on the performance of firms in developing and emerging countries. The study found out that the distribution of financial services across firms had a positive impact on firm growth. Ikram and Samreen (2015) examined the impact of financial inclusion on banks profitability. The study revealed that there is a positive and insignificant effect of deprived population access to financial services, usage of financial services and cost of financial services to bank's revenue generation.

Previous studies as reviewed above cover several topics related to the financial inclusion variables used in this study, such as access to financial services, availability of financial services, usage of financial service, branches, banking penetration, ATMs and online banking. These studies examined the effects of bank services and innovation on bank performance, SME performance, and poverty alleviation. In this study, bank branches, service delivery, quality of the products, banking penetration, ATM, online banking and bank access as financial inclusion indicators are related to profitability, ROA, ROE, bank risk as bank performance indicators. Limited studies have both the microfinance institution and commercial banks while research linked to the supply side is scarce and nearly unavailable in Cameroon research sphere. This prompted this study to examine the effects of financial inclusion on the performance of financial institutions in Cameroon in order to fill the existing literature and geographical gap in the financial inclusion,

specifically, on the supply side.

Financial Performance

Financial performance is the measure of organizations achievement on the goals, policies and operations Two different measures are used for to quantify financial performance such as NPM and ROA. Zaigham and Asghar (2011) indicated that financial performance is evaluated by looking at the return banks received from their total investment (ROA). Return on assets is the total resources owned and controlled by a Bank divided by profit before tax (Dew, 2007). Performance in this article was measured using ROA.

Control Variables and Measurability

We used a set of bank-specific variables that have robust effects on performance, namely, nature of the bank (NATBNK) or type of bank (TOB). Nature of the bank relate to commercial bank or micro finance establishment.

2.3 Research Gaps

To date, there has been a scanty literature on financial inclusion in Cameroon. This study will contribute to provide a measurement of financial inclusion and performance of financial

institutions in Cameroon. We shall use measurement that have been applied in other countries to evaluate the situation of financial inclusion in Cameroon and how financial inclusion have impacted the performance of financial institutions in Cameroon.

This study also, filled an important gap in the literature by providing new evidence on the impact of financial inclusion on the performance of financial institutions in Cameroon. The reviewed literature above exposed those various conceptual studies that have been conducted on financial inclusion but scarce empirical studies have touched varied aspects of financial inclusion. Further, there is paucity of empirically tested relation between financial inclusion and performance of financial institutions (both commercial banks and microfinance institutions).

The principal contribution of this thesis to the existing body of knowledge is its ability to track the route of financial inclusion to financial performance of financial institutions. Although, recently scholars have worked empirical on financial inclusion, their emphasis has mostly been limited to some few specific dimensions. The author has examined the financial inclusion constructs as identified by early scholars such as (Hannig & Jansen, 2010) bearing in mind their interrelatedness and connections. The main aim was to underscore how these dimensions work symphonically towards improving financial performance. By kindling deeper thoughts and understanding on the concept of financial inclusion, the study distinguishes itself from the existing prior studies. Also, deeper thoughts expose us in tracing the route of financial inclusion towards improving financial performance. This, to the greatest understanding of the author, is the first of its kind, promising to profile future research in that path. By prudently modeling and studied the combination of access, availability and usage construct of financial inclusion, policy makers and scholars can see a bigger picture of the whole which could measure the unique role each dimension plays in ensuring the performance of financial institutions from financial inclusion efforts.

Secondly, the study contributes to the existing knowledge in its in-depth, country-specific approach. Generalisation of cross-country studies often may undermine country-specific critical factors which this study has escaped. This study has focused only on Cameroon thereby allowing the author to carefully trace externalities that have unintended impacts on financial inclusion among financial institutions in Cameroon. Cameroon being a low income country as per World Bank classification (Demirgüç-Kunt et al., 2015) is strategic to allow for contextualised generalisation with a minimum error margin.

Again, the methods of investigation have added to elevating our understanding of financial inclusion as an emerging scholarly concept. The application of ordered Logit model concisely reflects the dichotomous nature of the whole concept of financial inclusion. Thus, one is either financially included or not, with no middle ground. The methodological innovation is the application of control variables (type of bank – microfinance or commercial bank) allows the author to carefully separate firms' attributes that are predisposed to their risk of being excluded from obtaining banking service, from those that are not.

3.0 MATERIAL AND METHODS

The study adopted a descriptive and cross-sectional research design. Purposive and convenience sampling method were used to select 210 senior managers' respondents of the depository financial institutions from a targeted population of 1590 senior managers' respondents. Primary data was collected using a self-administered questionnaire. The questionnaire was real questions aimed at avoiding perceptions and bias. The questionnaire was subjected to a pilot test wherein 5 heads of commercial banking and MFIs were requested to fill the questionnaire. Data was coded, entered into SPSS, process and means calculated. All data sources employed in this article were considered reliable and the time period of the research sample was selected due to data availability. This study applied an ordered logit regression model to establish the effect of financial inclusion on financial performance. Descriptive statistics using mean and standard deviation was employed meanwhile pearson's correlation coefficient was utilized to establish the relationship between the dependent variable and the independent variables. To make reading and interpretation easier, the results were presented in tables form. The model took the following format:

$Perf = f[e^{-} (ACC, AVA, USA)$ …………………..………..……………..………...…….1.0

$[Pr(Y=1/j)] = 1/e^{\wedge} (\alpha0 + \alpha1 ACC + \alpha2 AVA + \alpha3 USA + \alpha4 NATBN + \alpha5 AOB + ei)$..................1.1

Apriori Expectation: $\alpha0 \# 0$, $\alpha1, \alpha2, \alpha3, > 0$

Where;

Pr = order log odds or likelihood; Y = the ordered response variable (dependent Variable) of 1 to 4 ; J = Five levels of the response variable of strongly disagree, disagree, indifferent, agree, and strongly agree; Perf = ROA; ACC=Access to financial services, AVA=Availability of financial services, USA=Usage of financial services, and NATBNK=Nature of the Bank; 1=commercial bank, 0 =MFI; AOB=Age of the bank; $\alpha0$ = constant term and $\alpha1, \alpha2,$ ……….…… $\alpha4$= are parameters to be estimated.

4.0 FINDINGS

Descriptive Statistics

Table 1, recapitulates the descriptive statistics for the variables employed in the study; it covers accurate information about the dependent and independent variables in the form of mean, standard deviation, minimum, and maximum.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Name of the bank	189	1	2	1.21	.410
Age of the bank	189	2	5	2.62	1.093
Access to banking services	189	2.40	4.80	3.5005	.79643
Availability of banking services	189	3.00	5.00	4.3298	.65232
Usage of banking services	189	2.00	4.00	2.3316	.59200
Return on Assets	189	3.50	5.00	4.0066	.49292
Valid N (listwise)	189				

Source: Established by the author (2022)

Table 1 above revealed that the average number of bank officials attested that they have experience an increased financial performance over the years with mean 4.0 and standard deviation 0.49. Among the independent variables, availability of banking services (mean=4.0) and access to banking services (mean=3.5) scored the highest mean above theoretical mean of 2.5 an indication that availability of banking services has a positive impact on the financial performance of financial Institutions. We used the variance inflation factor (VIF) test to test whether multicollinearity problem existence in the study models.

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Table 2. Correlations

	Name of the bank	Age of the bank	Access to banking services	Availability of banking services	Usage of banking services	Return on Assets
Name of the bank	1					
Age of the bank	-.021	1				
Access to banking services	.143*	.353**	1			
Availability of banking services	.534**	-.106	.423**	1		
Usage of banking services	.089	-.226**	.007	-.315**	1	
Return on Assets	-.264**	.767**	.397**	-.168*	-.041	1
VIF	0.576	0.623	0.54	0.35	0.611	
Tolerance	1.736	1.606	1.852	2.854	1.637	

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

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

Source: Established by the author (2022)

Table 2 above shows that the VIF results were less than 1, an above, indication that multicollinearity problem did not exist in the independent variables in this study. (Shihadeh et al., 2018) holds that the value of VIF should not be more than 10. The correlation between the variables are pretty good in the absence of a high correlation between the variables and, hence, the lack of a multicollinearity issue.

Empirical Test – Ordered Logit

Table 3 Logistic regression results – financial innovation and performance

	Estimate	Std. Error	Wald	Sig.	Odd Ratio	95% Confidence Interval	
						Lower Bound	Upper Bound
[Performance = 3.00]	7.130	1.869	14.555	.000	1249.1	3.467	10.793
[Performance = 4.00]	11.020	2.076	28.172	.000	61074.5	6.951	15.089
[Performance = 5.00]	11.846	2.115	31.359	.000	139546.6	7.700	15.992
BankName=1	-2.841	.555	26.195	.000	.05	-3.929	-1.753
BankAge=2	1.766	.244	52.329	.000	5.8	1.288	2.245
Access to banking services	.920	.271	11.483	.001	2.5	.388	1.452
Availability of banking services	.345	.395	.762	.383	1.4	-.429	1.119
Access to banking services	1.151	.359	10.294	.001	3.1	.448	1.854
Financial Inclusion	1.088	.336	10.510	.001	2.9	.430	1.746
Pseudo R2	0.596						
-2(Log Likelihood (β0)	Intercept Only=427.563 Final =283.222, x2 = 144.341 Sig =.000						
Goodness-of-Fit	df=25, x2 = 5099.829 and Sig = 0.00						

Source: Established by the author (2022)

From table 3, the threshold estimate for [Perf = 3] to [Perf = 5] is the cut-off value used to differentiate strongly disagree from strongly agree when values of ROA variables are evaluated at zero. The results show that respondents that had a value of 7.130 or less on the underlying independent variable that gave rise to our performance variable would be classified as low performance (disagree) given the respondents were MFI, holding other variable constant. Respondents that had a value of 11.020 (this correspond to [Perf=4]) or greater on the underlying latent variable that gave rise to our performance variable would be classified as high performance (agree) given they were MFI respondents. Respondents that had a value less than 7.13 and greater

than 11.020 (corresponding to [Perf = 1] $ [Perf = 4]), on the underlying latent variable would be classified as very low performance (strongly disagree) and very high performance (strongly agree) respectively. This means that if the respondents were to be evaluated one after each, respondents with scores less than 7.13 would indicates experiencing very low performance, respondents with scores greater than 11.02 would indicate experiencing very high performance.

A unit change in access to banking services (ATBS), availability of banking services (AOBS), usage of banking services (UOBS), bank nature (BankName) and bank age results to a change in financial performance (ROA) by 0.920, 0.345, 1.151, -2.841 and 1.766 respectively in the ordered log-odds scale while the other variables in the model are held constant. While bank name being a micro finance shows a negative influence with financial performance, access to banking services, availability of banking services, usage of banking services and bank age shows a positive influence. The ordered logit for type of bank=1 (commercial bank) being in a high performance category is 2.841 less than microfinance when the other variables in the model are held constant while the ordered logit for type of bankage=2 (10-20 years) being in a high performance category is 1.766 more than microfinance when the other variables in the model are held constant.

An increase in access to banking services was associated with an increase in the odds of experiencing high performance, with an odds ratio of 2.509 (95% CI, 0.388 to 1.452), a statistically significant effect, Wald χ^2 = 2.509, p=0.001. This means that the odd of having high financial performance is 2.5 time greater for banks with ease access to banking services. Secondly, an increase in availability of banking services was associated with an increase in the odds of experiencing high financial performance, with an odds ratio of 1.4 (95% CI, -0.429 to 1.119), a statistically insignificant effect, Wald χ^2 = 1.4, $p = 0.383 < Alpha = .05$. This means that the odd of having high financial performance is 5.26 time higher for banks with increased availability of banking services than banks with low process innovation. Furthermore, an increase in usage of banking services was associated with an increase in the odds of considering high performance, with an odds ratio of 3.16 (95% CI, 0.448 to 1.854), a statistically significant effect, Wald χ^2 =3.16, $p=0.001 > alpha =0.05$. This means that the odd of having high financial performance is 3.16 time higher for banks with increased usage of banking products than banks with low usage.

Again, the odds of commercial bank experiencing high performance were 0.058 (95% CI, -3.929 to -1.753) times less than that of micro finance, a statistically significant effect, Wald χ^2 = 0.058, p=0.000 < alpha = 0.05. This means that the likelihood of commercial bank experiencing high performance is lower than microfinance by 5.8%. This means that the odd of having high financial performance is 5.8 time lower for commercial banks than micro finance institutions. While the odds of age of the bank (above 10 years) experiencing high performance were 5.84 (95% CI, 1.288 to 2.245) times more than banks with age less than 10 years, a statistically significant effect, Wald χ^2 = 5.84, p=0.000 < alpha = 0.05. This means that the likelihood of banks existing between 10 and 20 years and experiencing high performance is higher than banks with less than 10 years in existence by 58.4%. This means that the odd of having high financial performance is 58.4 time

higher for depository financial institutions that have been existing for over 10 years. In sum, an increase in financial inclusion was associated with an increase in the odds of considering performance to be high, with an odds ratio of 2.968 (95% CI, 0.430 to 1.746), a statistically significant effect, Wald χ^2 =2.968, p =0.001 > Apha = 0.05. This means that the odd of having high financial performance is 2.968 time higher for banks with financial inclusion services such ease access, more available services and ease to use services than banks with rigid access, inadequate availability and low usage of banking services.

This study established that access to bank services has a positive and significant effect on financial performance of depository financial institutions and we therefore rejected the null hypothesis that stated that product innovation does not have a statistical significant effect on financial performance in favour of the alternative hypothesis. This positive effect is because banks are conveniently located, employees of the banks are easily accessible when needed, the bank manager promptly redressed clients' problems and account formalities are easy. These results are in line with other previous published works by Khatib et al (2022), Shihadeh (2021) and Shihadeh (2020) who established a positive and significant effects of financial inclusion on financial performance of banking institutions. Secondly, the findings revealed that availability of banking products has a positive and insignificant effects on the financial performance of depository financial institutions and therefore, we accept the null hypothesis that state that availability of banking services does not statistically influence financial performance. The positive effects is explain by the fact that majority of the respondents attested that banks provide overdraft facilities, banks provide debit card and insurance facilities and loans are available within the time limit while procedure involve in granting loan is easy. This result aligned with the findings of Harelimana (2016) who found out that loan disbursed have positive effects on the performance of CLECAM EJOHEZA KAMONYI. Thirdly, usage of banking services was revealed to positively and signficantly influence financial performance of deepository financial institutions and we therefore, rejected the null hypothesis and concluded that usage of banking services does no have a statistical significance in influencing financial performance. It was revealed that majority of bank clients save money at a regular interval and withdrawal is done frequently, advance schemes of the banks are frequently used by the clients and clients frequently use the credit/loan facilities of the bank. This result aligned with the findings of Bigirimana and Hongyi (2018), who found out that usage of commercial banks have shown an increase in the period under study.

5.1 Conclusion

This study seeks to investigate the effects of financial inclusion on the performance of depository financial institutions in Cameroon. A sample 210 respondents from 75 depository financial institutions were selected. Ordered logit regression was used to achieve robust results when examining the financial inclusion. The results indicated that access to banking services, availability of banking services and usage of banking services positively influenced financial performance of

depository financial institutions as measured by return on assets. Access to banking services and usage of banking service were significant predictors of financial performance.

5.2 Recommendations

This study recommended that officials in Cameroon should prioritize financial inclusion by means of passing laws that encourages lending practices by depository financial institutions. Again, banks should improve on banking tools such as relaxing opening of account formalities, add more services to their product list to increase financial inclusion and enhance financial performance. Furthermore, banks must encourage their clients use more services of the banks or banking services could be package and sell to clients. Results of this research may contribute to the expanding and find turning additional financial sector reform policies in way of show casing how increasing access and usage to banking services may directly affect the performance of banking institutions. To overcome the limitations of this study such as small sample, further studies should be carried out.

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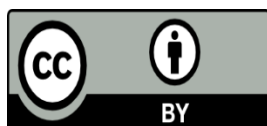
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