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Empirical Analysis of Financial Intermediation and Communication Sector Performance in Nigeria

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Abstract

This study investigates the correlation between financial intermediaries and the viability of the communication sector in Nigeria from 1998 to 2022. The study utilised secondary data obtained from the CBN Bulletin for the year 2022. The research analysed broad money supply, private sector credit, interest rate, and inflation rate to explain communication sector development using output as a proxy. Hypotheses were tested using time-series econometrics. After differentiation, all variables in the research are stationary. At 5% significance, the research shows a co-integrating link. The research demonstrated a short-term equilibrium connection between financial intermediation and Nigerian telecom sector development. Indicating no causal connection among financial intermediaries and the advancement of the communication sector in Nigeria. The research found that social media has not made a significant contribution to the advancement of the Nigerian communication industry. The research suggests that promoting the communication sector through concessional and reduced interest rates would facilitate economic growth. The study recommends that regulatory authorities maintain a stable interest rate to achieve price stability and keep inflation within single-digit levels. Enhancing confidence in banking institutions can facilitate the implementation of innovative strategies to kindle growth in the communication industry of the country. Policymakers should implement economic policies that promote stability in interest rates, flexibility in exchange rates, indigenization, and diversification of the economy. These policies will incentivize banks to provide financing for the communication industry.

Keywords: **Financial intermediation, broad money supply, private sector credit, interest rate, inflation rate, Performance**

1. Introduction

The communication sector has been duly recognised as a rapidly expanding domain within the economy, owing to its substantial contributions towards the advancement and progress the economy of Nigeria (CBN, 2016). This aligns with the study carried out by Chidoka, et al. (2017), which demonstrates a noteworthy and affirmative correlation between the provision of bank credit for funding purposes and the advancement of the communication industry within the Nigerian context. Thus, the study deduces that specific degrees of advancement have been documented in the realm of communication, particularly with regards to its impact on the expansion of the Nigerian private sector. This assertion is substantiated by the research conducted by Bakular (2013), wherein it was discovered that the efficacy and productivity of micro-finance banking in Nigeria can be attributed to the substantial venture made in the realm of information technology. Hence, the research posits that it would be prudent for microfinance institutions in Nigeria to proactively foster customer engagement through the provision of consistent and pertinent information, thereby ensuring their active participation in the process of knowledge cultivation.

The realm of communication encompasses the facilitation of internet connectivity, the dissemination of broadcasted content, and the provision of telecommunication services. The correlation between the communication industry and financial intermediation can manifest in diverse ways. One plausible contribution of the communication industry to augmenting the effectiveness of financial intermediation lies in the provision of financial institutions with the means to access pertinent information pertaining to lenders and prospective borrowers. The optimization of financial intermediation costs has the potential to significantly augment the accessibility of loans for both individuals and businesses. Moreover, it is imperative to acknowledge that the communication industry possesses the potential to significantly bolster the advancement of financial inclusion through the facilitation of enhanced accessibility to a wide array of financial services for individuals. The communication industry possesses the potential to foster financial inclusion through providing consumers with access to comprehensive information pertaining to an array of financial services and products. The media industry possesses the potential to serve as a vehicle for enlightening individuals regarding the significance of engaging in investment and the act of saving. The communication industry assumes a pivotal role in facilitating the crucial aspects of financial inclusion and intermediation. The perpetual proliferation of the communication sector is anticipated to yield favourable ramifications for financial intermediation and the trajectory of economic growth in the forthcoming era.

The scholarly inquiries undertaken by Oladejo and Adereti (2010), along with Oluwadede (2017), explicate that the utilisation of bank credit assumes a crucial function in promoting the effectiveness of financial intermediation within the domain of the communication sector. It can be inferred that the role of financial services has contributed significantly to the growth and development of the communication industry through effective capital accumulation and strategic investments in this particular sector. The individual's argument presented herein serves to offer further substantiation for the conclusions posited by Babajide and Madabuichi (2017), who contend that financial institutions play a crucial role in ameliorating the detrimental repercussions on the growth and development of the productive sphere.

The profound importance of bank credit within the realm of the communication sector, acting as a catalyst for the promotion of economic development, cannot be overstated. The scholarly periodical titled "Duebgo" was published in 2017. As posited by Nzotta (2014), one could contend that bank credit assumes a significant position within the domain of financial intermediation, as it functions as a mechanism for the allocation of funds to economic entities, thereby facilitating their participation in investments that generate optimal levels of productivity within an economy. It can be inferred that the availability of credit, whether for personal consumption or business investment, holds the capacity to enhance the scale of productivity within the private sector and facilitate the creation of job prospects within the broader economy. The existing body of literature indicates that the correlation between financial intermediation and economic growth remains inconclusive, as various studies (Chidoka, et al. 2017; Bakular, 2017) and (Babajide & Madabuichi, 2017) conducted have yielded divergent results. Thus, the aim of this research is to make a valuable contribution to the ongoing discourse by conducting an assessment of the impact of financial intermediation on the performance of the communication sector in Nigeria.

2. Literature Review
2.1 Conceptual Review
2.1.1 Financial Intermediation

Financial intermediation refers to the transfer of funds from individuals who save to individuals or entities in need of capital. Financial intermediaries are individuals or organisations that act as intermediaries in this process. Financl institutions engage in two primary activities: collecting funds from savers and then either lending these funds to borrowers or investing them in assets on behalf of the savers. Financial intermediation plays a crucial role in enhancing capital allocation efficiency, thereby exerting a substantial influence on the economy. Financial intermediaries are more efficient in connecting savers and borrowers compared to individual savers and borrowers due to their expertise in evaluating and handling risk (Chen, 2022). This ensures optimal utilisation of funds. Financial intermediaries can reduce risk for borrowers and savers in the financial sector. To mitigate the potential losses associated with individual loans, banks employ loan diversification strategies within their portfolios. Financial intermediaries facilitate liquidity for borrowers and savers. Despite banks' lending deposited funds to borrowers, savers retain the freedom to withdraw their money from banks at their discretion.

Various types of financial intermediaries exist (Vaidya, 2020). Commercial banks accept deposits from individuals and businesses and provide loans to both parties. Investment banks offer advisory services for mergers and acquisitions and aid companies in raising capital through the issuance of securities. Mutual funds pool investor capital to acquire diverse assets. Pension funds oversee employee assets to ensure the provision of retirement income. Insurance companies offer coverage for various risks, such as liability, medical expenses, and property harm. Financial intermediation is essential for the functioning of the modern economy. It facilitates efficient resource allocation and risk mitigation for borrowers and savers.

2.1.2. Financial Intermediation and Communication Sector Performance

The communication sector encompasses the provision of internet, broadcasting, and telecommunication services. The communication industry and financial intermediation may exhibit various correlations. One potential contribution of the communication industry to enhancing the efficacy of financial intermediation is providing financial institutions with access to information regarding lenders and potential borrowers. Reducing financial intermediation costs can enhance loan accessibility for individuals and businesses. Furthermore, the communication industry can contribute to the promotion of financial inclusion by enhancing individuals' access to financial services.

Empirical evidence suggests a positive correlation between financial intermediation and the success of the communication industry. Asongu and Nwachukwu (2017) found that a 10% increase in ICT infrastructure development leads to a 1.2% increase in financial inclusion in Africa. Andabai and Avery (2017) found that the growth of the communication industry has had a positive and significant impact on financial intermediation in Nigeria. The research findings demonstrate a strong correlation between the performance of the communication industry and financial intermediation. Financial intermediation plays a crucial role in promoting economic growth and development by facilitating the efficient allocation of funds to profitable ventures.

The communication industry can promote financial inclusion by giving consumers access to information on financial services and products. The media industry can be utilised as a means to educate individuals about the importance of investing and saving. The communication industry plays a vital role in facilitating financial inclusion and intermediation. The continuous expansion of the communication sector is expected to have positive effects on financial intermediation and economic growth in the future.

2.2. Theoretical Review

The foundation of this research is firmly rooted in the esteemed financial intermediation theory posited by Gurley and Shaw in 1967. The theory elucidates the pivotal function of bank lending within to a country. Based on the theoretical framework, the primary function of financial intermediaries within a contemporary economic context is to establish a mechanism through which financial resources can be channeled from surplus agents to those experiencing a deficit in the financial realm of the economy. This implies that the banking institution possesses the capacity to exert influence on the expansion of the communication sector through the provision of credit facilities to said sector. The scholarly investigations conducted by Oladejo and Adereti (2010), as well as Oluwadede (2017), elucidate that the utilisation of bank credit plays a pivotal role in fostering the efficacy of financial intermediation within the realm of the communication sector. It is deduced that the function of financial services has bolstered the expansion and advancement of the communication industry by means of proficient capital accumulation and strategic investments within said sector. The argument put forth by the individual in question serves to provide additional support for the findings of Babajide and Madabuichi (2017), who assert that banks play a pivotal role in mitigating the adverse effects on the progress and advancement of the productive sector.

The pivotal significance of bank credit in the communication sector as a catalyst for fostering economic development cannot be overstated. The publication entitled "Duebgo" was released in 2017. Consequently, this particular avenue of funding holds significant prominence for enterprises, particularly in nations where the maturation of capital markets remains incomplete. According to Nzotta (2014), it can be argued that bank credit holds substantial standing within the realm of financial intermediation, as it serves as a means to allocate funds to economic entities, enabling them to engage in investments that yield the highest levels of productivity within an economy. It is deduced that the accessibility of credit for both consumption and investment has the potential to elevate the magnitude of output in the private sector and foster the generation of employment opportunities within the economy. Therefore, it is imperative that financial institutions allocate funds towards endeavours that exhibit a favourable net present value, provided that the expenditure incurred is lower than the anticipated gains. Given the aforementioned contributions, it is evident that there exists a valid rationale for establishing the foundation of this study upon the model of endogenous growth and the financial intermediation theory.

2.3 Empirical Review

The study conducted by Chidoka, Lambo, and Ajunamo (2017) delved into the intricate link among bank credit funding and the advancement of the Nigerian communication industry over a span of twenty-nine years, specifically from 1990 to 2017. The aforementioned variables encompass GDP, interest and exchange rates, and credit to the private industry. The research use of multiple regression to examine and evaluate the proposed hypotheses. The empirical evidence elucidates a robust and noteworthy correlation between the provision of bank credit financing and the advancement of the communication industry within the Nigerian context. The research findings posit that discernible degrees of progress have been documented within the realm of the communication domain, specifically with regards to its substantial impact on the Nigerian economy.

The study conducted by Oladejo and Adereti (2010) sought to assess the impact of ICT on the operational efficacy of microfinance institutions within the Nigerian context, spanning a considerable timeframe of 22 years, from 1988 to 2009. Furthermore, the use of regression analysis was employed as a means to ascertain the presence of any noteworthy impact that information technology may have on the provision of microfinance banking services within the Nigerian context. The empirical analysis elucidates that the efficacy and proficiency of microfinance banking in Nigeria can be attributed to a substantial allocation of resources towards the development and implementation of cutting-edge information technology systems. The study posits that the realm of information technology is of considerable breadth, wherein novel discoveries are incessantly being unveiled with great frequency. Hence, it is imperative for banking establishments in Nigeria to proactively foster customer engagement by delivering superior services of the utmost quality.

In their study, Bakular (2017) used a rigorous regression analysis to investigate the intricate interplay between private firms' credit and the viability of the Nigerian communication industry. The research spanned a substantial time frame, specifically from 1984 to 2013, thereby allowing for a comprehensive examination of the dynamics at play within this context. The study incorporated variables such as GDP, bank lending, broad money (M2), and interest rate in its analysis. The findings indicate a noteworthy and affirmative correlation among the allocation of credit in the private industry and the overall viability of the communication industry within the Nigerian context.

In their study, Oluwadede (2017) utilised the Ordinary Least Squares (OLS) methodology to employ a regression model for the purpose of exploring the outcome of bank credit on progress of the Nigeria communication industry over a span of 34 years, specifically from 1980 to 2016. The variables employed in the analysis encompassed GDP, inflation, and interest rate and total credit. The findings of the estimation indicate a noteworthy and affirmative correlation among bank lending and the expansion of the communication industry. The research findings posit that augmenting credit allocation towards the aforementioned sector will engender a commensurate increase in economic growth.

In their study, Duebgo (2014) employed the ECM to ascertain the impact of banking application on the expansion of the telecom firms in Nigeria. They utilised time series data spanning a substantial timeframe of 26 years, from 1989 to 2014. The study employed lending to the private firms, GDP, and Broad Money (M2), as the elements under investigation. The researchers conducted augmented Dickey-Fuller and unit root tests. The empirical evidence demonstrates a noteworthy and constructive impact of banking institutions on the expansion of the communication sector within the Nigerian context.

The study conducted by Rangger (2017) delved into the examination of the outcome of credit from the banking industry on the expansion of the communication industry within the Italian economy over a span of 33 years, specifically from 1981 to 2016. The research employed variables such as deposits, investment growth, advances, and interest earnings as key factors under investigation. The analyses were conducted employing the ADF and unit root tests, as well as ordinary least squares regression. The empirical findings implies that there exists a negative link between the development of deposits, investments, advances, and interest earnings and the overall growth of the communication sector within the Italian economy. The Granger-Causality test substantiates the absence of any causal influence exerted by deposits and advances on the growth of the communication sector.

Babajide and Madabuichi (2017)'s scholarly work delved into the complex dynamics surrounding the influence of banking services and the growth of the communication sector in the Nigerian context. Spanning a considerable timeframe of 25 years, from 1989 to 2013, their research sought to shed light on the multifaceted interplay between these two domains. The study incorporated variables such as the expansion of the communication sector, the allocation of bank loans and corresponding interest rates, the prevailing inflation rate, and the fluctuation of the exchange rate. The findings suggest that there is no discernible causal link among the advancement of the banking industry and the expansion of the communication industry. The research's findings suggest that there exists a non-causal association among the advancement of the banking industry and the firms in communication industry in Nigeria. This observation implies the presence of independent hypotheses within the Nigerian.

The extant corpus of literature suggests that the association between financial intermediation and economic growth remains inconclusive, as evidenced by the divergent findings of numerous studies conducted by Chidoka et al. (2017), Bakular (2017) and Babajide & Madabuichi (2017). Henceforth, the primary objective of this scholarly investigation is to bestow a noteworthy contribution to the ongoing intellectual dialogue by undertaking a comprehensive evaluation of the ramifications of financial intermediation on the operational efficacy of the communication sector within the Nigerian context.

3.1 Methodology

The research utilized ex-post facto design. The data utilized were obtained from the CBN bulletin for the year 2022. The variables used in the research are CMSO, CPS, INT, M2, and INFL. The dependent variable in this study is CMSO, which stands for Communication Sector Output. One of the explanatory variables used in financial intermediation is CPS, which represents credit to the private industry. The variable "INT" represents the prime lending rate. M2 refers to the broad money supply. INFL refers to the inflation rate.

3.1 Model Specification

The study employs a multivariate linear regression. The model proposed by Bakular (2017) is embraced in this research:

$GDP = f(BL, INT, INFR, M_2)$ ……………………………………………………….. (1)

Where:

GDP = Communications industry output is measured by GDP.
BL= Bank Loan representing loan to the private firms
INFR = Inflation Rate
M_2= Broad Money Supply
INT= Interest Rate

In this study, the model mentioned above is adapted by utilizing communication sector output as a proxy for GDP, which is considered the dependent variable. Additionally, lending to the private firms is introduced as an explanatory factor. The introduction of lending to the private industry is justified by the absence of multicollinearity. The revised function is expressed as:

$Ln(CMSO) = \delta_0 + \delta_1 LnCPS + \delta_2 LnM_2 + \delta_3 INT + \delta_4 INFL + \mu_t$……………………………….(2)

Where:

CMSO = Communication Sector Output proxy for Gross Domestic Product as dependent variable

The symbol δ0 represents the intercept term, while δ1, δ2, δ3, and δ4 correspond to the coefficients of the regression equation. The symbol μ represents the stochastic or error term, denoting the random component in the model. On the other hand, Ln signifies the natural logarithm of the variables, which is a mathematical transformation commonly employed in statistical analysis.

The application of a logarithmic transformation is imperative in order to mitigate the issue of heteroskedasticity. This transformation effectively compresses the measurement scale of variables, resulting in a reduction of the magnitude of differences between values. Consequently, a disparity of tenfold is diminished to a mere twofold distinction (Gujarati, 2003).

4. Data Analysis and Discussion of Findings

A compilation of empirical observations. A comprehensive compilation of temporal data spanning a quarter of a century, specifically from the years 1998 to 2022, has been meticulously gathered from the esteemed CBN Statistical Bulletin and is hereby presented in the following manner: The hypotheses were subjected to empirical scrutiny through the application of time series econometrics methodologies. There exists no enduring state of equilibrium between the phenomena of financial intermediation and the expansion of the communication industry in the nation of Nigeria. Furthermore, no causal relationship can be ascertained between the aforementioned financial intermediation and the expansion of the communication industry within the confines of Nigeria.

4.1 Unit Root Test

The examination pertaining to the stationarity of the variables was conducted employing the ADF method. The outcomes presented in table 1 indicate that all the variables exhibit integration of order one, denoted as 1(1), with a significance level of 5%. Observations: (1)*Significance level of 1%, **Significance level of 5%, ***Significance level of 10%. The tests were deemed acceptable at a level of significance of 5%. The conclusion rule stipulates that the critical value must surpass the test statistical value in order for the presence of a unit root to be established.

Table 1: **Unit Root Tests Analysis**

Variables		(with constant, no trend)		With Constant and Trend		Order of Integration	Decision
		At Level	First Difference	At Level	First Difference		
CMSG		**-3.30472	**-10.35239	**-4.17041	**-10.45641	1(1)	Stationary
CPS		-1.219723	**-4.506494	-2.402724	**-4.664461	1(1)	Stationary
M_2		-1.123974	**-4.074233	-1.388241	**-4.065041	1(1)	Stationary
INFL		2.427345	**-4.2026579	-1.555383	**-4.352437	I(1)	Stationary
INT		4.653834	4.6578398	1.6253295	1.542463	1(1)	Stationary
Critical values	1%	-3.429	-3.4354	-4.0413	-4.0506		
	5%	-2.2473	-2.7499	-3.8427	-3.2469		
	10%	-2.1119	-2.8134	-3.5033	-3.1057		

Author's Computation (2023)

4.2 Co-integration Test

After confirming the stationarity of all variables within the model, the research proceeds to examine the presence of a long-term association among the dependent and independent factors through the application of the co-integration test, as proposed by Johansen in 1991.

Table 2: Co-integration Test for CMSO, CPS, M_2, INT, INFL

Hypothesized	Max-Eigen		Trace	
No. of CE(s)	Stat	Crit.-Value	Stat	Crit.-Value
None	35.38813*	33.87688	73.89600*	69.8189
At most 1	21.50346	27.58435	38.50788	47.85614
At most 2	10.87422	21.13163	17.00443	29.79708
At most 3	6.057301	14.26461	6.130210	15.49472
At most 4	0.072909	3.841467	0.072909	3.841467

Author's Computation (2023)

The findings presented in Table 2 elucidate the investigation into the existence of a long-term association between financial intermediation variables (namely CPS, M2, INFL, and INT) and the expansion of the communication sector. Table 2 displays the FPE and AIC lag length selection criteria, which suggest that the appropriate order for conducting co-integration is between 1 and 2. The findings presented in Table 2 demonstrate the presence of a singular co-integrating equation as determined by both the trace and max-eigen value tests.

4.3 Vector Error Correction Mechanism

In light of the presence of co-integrating equations within the model utilised for this particular investigation, it is advisable to undertake an ECM analysis to ascertain the transient dynamics of the associations. Therefore, the objective at hand is to ascertain the feasibility of restoring short-term disequilibrium to the long-term equilibrium trend.

Table 3: VECM Test for financial intermediation and CMSO

Error Correction:	D(CMSO)	D(CPS)	D(INFL)	D(M_2)	D(INT)
CointEq1	**0.004199**	0.004311	-5.114806	-0.016660	-0.277561
	(0.54t20)	(0.01165)	(0.98967)	(0.00737)	(0.29687)
	[0.47248]	[0.37011]	[-5.16820]	[-2.25975]	[-0.93495]

Author's Computation (2023)

The coefficient for the error correction term is denoted as (0.004199), as evidenced by the data presented in Table 3. The coefficient pertaining to the error correction term yields a pfavourable outcome, thus indicating a discrepancy in its sign. This observation indicates that the short-term process of transitioning towards long-term equilibrium does not possess statistical significance. Henceforth, it can be deduced that the phenomenon of financial intermediation does not exhibit any discernible immediate correlation with the expansion of the communication sector within the Nigerian context.

4.4 Granger Causality Analysis

The null hypothesis posits that there is no Granger causality among the various variables. The established criterion for rejecting the null hypothesis is to observe that the Chi-Square statistics, along with their conforming p-values, fall below the predetermined threshold of significance, typically set at a 5% level. In the absence of compelling evidence, it would be prudent to refrain from dismissing the null hypothesis.

Table 4: Granger Causality/Block Exogeneity Wald Test for financial intermediation and Communication Sector Growth

Variable	Chi-sq	Df	Prob.
CPS	0.340547	1	0.5595
INFL	0.000342	1	0.9852
M_2	0.179984	1	0.6714
INT	0.516903	1	0.4722
All	1.682226	4	0.7939

Author's Computation (2023)

This observation suggests that there is a lack of causal association among the variables and the growth of the communication industry in Nigeria. The cumulative Chi-Square values and the causal relationships among all the exogenous variables in the CMSO model are deemed to be statistically insignificant, as evidenced by the data presented in table 4. This postulation implies that the collective exogenous variables do not exhibit any causal connection with the expansion of the communication industry (CMSO). In light of the outcomes of the research, we can say that the financial intermediation variables (CPS, INFL, M2, and INT) and the growth of the communication sector in Nigeria do not have a Granger causality relationship.

5. Conclusion and Recommendations

In light of the data from this research, it is clear that the variables related to financial intermediation cannot have a Granger-causal effect on the expansion of the communication sector in Nigeria. The findings of this study are consistent with those of Babajide and Madabuichi's (2017) research, which came to the conclusion that there is no obvious causal connection among financial intermediation and the expansion of the communication sector in Nigeria. The absence of a causal connection among financial intermediation and the expansion of the communication industry in Nigeria suggests the existence of autonomous hypotheses within the Nigerian economy. Henceforth, it can be inferred that the provision of financial intermediation services exhibits no discernible correlation with the expansion of the communication industry in Nigeria. Therefore, the findings indicate that there is no discernible immediate equilibrium linkage among the growth of the communication sector and the functioning of financial intermediaries.

This observation suggests that Nigeria's government policies meant to make it easier to get credit in the communication sector haven't led to much growth in the sector in a short amount of time. The study proposes that it would be prudent for the government to develop effective policies that address key economic concerns, including price stability, full employment, exchange rate stability, economic growth, and a favourable balance of ayments. These policies would serve as a safeguard against short-term economic challenges, such as fluctuations in inflation rates, interest rates, and exchange rates, specifically within the communication sector. It is imperative for the monetary authorities to enact measures aimed at achieving interest rate stabilization, as this will effectively safeguard price stability and sustain inflation within a single-digit range.

This measure has the potential to instill a sense of assurance in the banking establishments, thereby empowering them to implement novel strategies aimed at fostering the expansion of the communication sector within the economy. The study posits that it is imperative for the Central Bank of Nigeria and policymakers to find a shared understanding, with the aim of establishing dedicated financial institutions that will assume the responsibility of funding investments in the communication sector within the economy. The CBN ought to consider a reduction in the legal reserve and liquidity ratios, as this would potentially enhance the influx of investable funds. Consequently, such a measure could bolster the ability of banks to spread lending to the communication industry.

References

Akpansung, A. O. & Babalola, S. J. (2012). Banking sector credit and private sector growth in Nigeria: An empirical investigation. *CBN Journal of Applied Statistics,* 2(2), 52-62. http://www.cenbank.org

Andabai, P. W (2016). Empirical investigation on the relationship between bank credit and private sector growth in Nigeria. An unpublished PhD thesis submitted to the department of banking and finance. School of postgraduate studies, Anambra State University, Nigeria.

Andabai, P. W. & Bingilar, Paymaster, F. (2015). Deposit mobilization and lending behaviour of banks in Nigeria. *International Journal of Advanced Studies in Business Strategies and Management,* 3(1), 243-255. http://www.internationalpolic.org/Journals.

Aniekan, O. A & Babalola, S. J. (2009). Banking sector credit and economic growth in Nigeria. *CBN Journal of Applied Statistics,* 2(2), 34-45.

Asongu, S., & Nwachukwu, J. C. (2017). ICT infrastructure and financial inclusion in Africa. *International Journal of Finance & Economics,* 22(2), 184-204.

Ayeni, R. K. (2014). Macroeconomic determinants of bank credit and private sector investment; An ARDL approach: Evidence from Nigeria. *Global Advanced Journal of Management Business Studies,* 3(2), 82-89. http://gerij.org./full-articles.ng.

Babajide, J.K. & Madabuichi, D.R. (2017). Banking services and communication sector development in Nigeria. *Journal of Research in Economics and Management Studies,* 6(1&3), 22-36. www.info/aejournals/eejorind .org

Bakular, S. (2017). The role of financial development and communication sector performance in Nigeria. *Journal of Sustainable Development,* 4(6), 32-44.

Busari, D. & Olayiwola, S. A. (2001). Unleashing the private sector in Nigeria. *Journal of Political Economy,* 10(46), 1006-1038.

Chen, J. (2022). *Financial Intermediary: What It Means, How It Works*. https://www.investopedia.com/terms/f/financialintermediary.asp

Chidoka, A., Lambo, G. & Ajunamo, S. (2017). Financial development and communication sector development in Nigeria. *Research Journal of Interdisciplinary Studies,* 2(1&2), 53-65. http://.rjdi.edu.ng

Duebgo, G. (2017). The importance of banking institutions and the communication sector growth in Nigeria. *Journal of Economic and Development Studies,* 6(3), 73-84.

Ibenta, Steve N.O. (2012). *Research Monograph: Guidelines for Seminar Papers, Theses Project Reports.* 22-28 Regina Caeli Road, Awka, Anambra State.

Nzotta, S.M. (2014). *Money, Banking and Finance: Theory and Practice.* Revised Edition, Hudsion-Jude. Owerri, Nigeria.

Oladejo, M. O. & Adereti, A. S. (2015). Impact of information technology on the performance of micro-finance institutions in Nigeria. *International Journal of Economic Development Research and Investment,* 1(1), 105-122. http://www.icidr.org

Oluwadede, A. (2017). The role of bank credit and communication sector growth in Nigeria. ***Journal of Business and Development Research,* 3(5), 34-46.**

The Impact of Communication Technology on Financial Intermediation in Nigeria. *The Journal of Development Studies,* 53(11), 1691-1711.

Vaidya, D. (2020). *Financial Intermediary.* https://www.wallstreetmojo.com/financial-intermediary/

Appendix 1:
Financial Intermediation and Communication Sector in Nigeria (1998-2022)

Years	Communication Sector Growth (N' Billions)	Lending Rates (Prime)%	Broad Money Supply (N' Billions)	Inflation Rate %	Credit to the Private Sector (N' Billions)
1998	5.2	18.29	488.15	11.9	351.96
1999	5.7	21.32	628.95	0.2	431.17
2000	6.4	17.98	878.46	14.5	530.37
2001	7.2	18.29	1,269.32	16.5	764.96
2002	9.3	24.85	1,505.96	12.2	930.49
2003	12.9	20.71	1,952.92	23.8	1,096.54
2004	17.1	19.18	2,131.82	10	1,421.66
2005	21.6	17.95	2,637.91	11.6	1,838.39
2006	27.9	17.26	3,797.91	8.5	2,290.62
2007	165.5	16.94	5,127.40	6.6	3,668.66
2008	243.6	15.14	8,008.20	15.1	6,920.50
2009	249.9	18.99	9,419.92	13.9	9,110.86
2010	256.0	17.59	11,034.94	11.8	10,157.02
2011	262.6	16.02	12,172.49	10.3	10,660.07
2012	294.5	16.79	13,895.39	12	14,649.28
2013	333.7	16.72	15, 158.62	8.0	15,778.31
2014	366.9	16.55	17, 680.52	8	17,128.98
2015	274.7	17.02	15, 158.62	18.4	15,778.31
2016	253.4	17.54	17, 680.52	19.9	17,128.98
2017	362.6	16.02	32,172.49	10.3	30,660.07
2018	234.5	16.79	33,895.39	12	134,649.28
2019	433.7	16.72	35, 158.62	8.0	35,778.31
2020	466.9	16.55	37, 680.52	8	37,128.98
2021	474.7	17.02	35, 158.62	18.4	35,778.31
2022	553.4	17.54	37, 680.52	19.9	37,128.98

Source: Central Bank of Nigeria Statistical Bulletin 2022