

## Research Article

### Bank Credit and ICT Sector Growth in Nigeria

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#### Abstract

This study investigated the relationship between bank credit and the growth of the Information and Communication Technology (ICT) sector in Nigeria, covering the period 2009–2023. To attain the objectives, a multiple linear regression model was specified with total private sector credit, prime lending rate, money supply (M2), and active internet subscriptions as independent variables. ICT contribution to Gross Domestic Product (GDP) was the dependent variable. The Ordinary Least Squares (OLS) method was employed to carry out the empirical analysis. Data were obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin, the National Bureau of Statistics (NBS), and the Nigerian Communications Commission (NCC). The findings revealed that credit to the private sector had a positive and significant impact on ICT growth, showing that access to credit facilitates expansion of the sector. Prime lending rate exhibited a negative relationship with ICT performance, indicating that higher borrowing costs discourage investment, though the effect was weak. Money supply (M2) was found to have a positive but insignificant impact on ICT contribution to GDP, suggesting that liquidity supports general economic activity but not specifically ICT growth. Active internet subscriptions also showed a positive but statistically insignificant impact, highlighting that digital penetration enhances ICT performance, though not strongly. The study concludes that credit availability plays a crucial role in ICT development in Nigeria, while high lending costs and weak financial targeting constrain growth. It recommends policies to expand credit access, lower lending rates, and strengthen digital infrastructure to enhance the ICT sector's contribution to sustainable economic growth.

**Keywords:** Bank Credit, Money Supply, Prime Lending Rate, Active Internet Subscription, ICT Growth.

## **Introduction**

For the modern economy, access to finance is a critical factor affecting the speed and the quality of sectoral development, of all the diverse nature of financing, it can be stated that bank credit is nothing but the grant of loans or advances that are extended to individuals, firms, government by financial institutions and it is the most formalized and organized source of financing in developing countries (Oluwagbemi et al., 2011). Bank credit not only boosts business growth but also helps to spur innovation, productivity, and investment in sectors. It is a major source of external finance and a powerful instrument for promoting enterprises development and economic growth (Olokoyo, 2011). In a sense, bank credit can be considered the bloodstream of economic activity, where the liquidity needed for investment, expansion, innovation and operating efficiency is provided. In Nigeria in particular, where the capital markets are shallow and venture capital scant, bank credit provides the bulk of enterprises' financing. However, unlike the oil and gas, manufacturing and commerce sector, the Information and Communication Technology (ICT) sector remains relatively under-funded (Obasan, 2018). The ICT sector is considered worldwide as a catalyst for economic change. It involves diverse technologies such as telecommunication, software development, internet infrastructure, digital platforms, fintech solutions, and more. Its impact is cross-industry, improving access to education, health, governance, business operations and financial inclusion. Capital intensive sectors such as ICT are rapidly evolving and require sufficient credit that can be provided rapidly enough to allow companies to develop infrastructure, expand their product range, and overcome market entry barriers. In most economics bank credit is one of the major sources of external finance, particularly for sectors that need a lot of capital investment, such as ICT. The development of this sector is an important channel for raising productivity, lowering transactions costs, improving communication and driving innovation in other industries. Nigerian ICT sector has demonstrated impressive strength and growth in the last decade

According to the National Bureau of Statistics (NBS), the ICT sector accounted for more than 17% of Nigeria's Gross Domestic Product (GDP) in Q2 2023, ranking it as one of the fastest-growing sectors in the country. The growth of smart city solutions is propelled by the rising internet penetration, growth of mobile telecommunication markets, growth in tech startups, and

the government's digital economy agenda. However, in spite of this progress, many ICT companies (startups and smallscale tech enterprises) still find it difficult to obtain sufficient financing from banks. Many ICT companies (especially startups and SMEs) cannot find the funding necessary to expand operations, purchase new infrastructure, or conduct R&D. This is attributed to factors such as the non-availability of collateral, high perceived risk on ICT banks, limited credit history due to the nature of ICT business which is mostly based intangible asset and the traditional way of lending by banks (Ewetan & Okodua, 2020). The main objective is to investigate the relationship between bank credit and the growth of ICT sector in Nigeria, with specific objectives such as assessing the impact of total private sector credit, the prime lending rate, money supply and active internet subscriptions on the contribution of the ICT sector to Nigeria's GDP.

## **Literature review**

### **Relationship between Bank Credit and the ICT Sector in Nigeria**

Bank credit is used to establish the basic foundation upon which ICT firms can innovate, grow their businesses, and meaningfully contribute to economic output. Access to credit allows ICT firms to invest in infrastructure such as data centers, broadband networks and advanced computing facilities. It also opens the opportunity to obtain licenses, implement innovative platforms, extend services to areas without adequate coverage, and recruit qualified professionals, all of which contribute to the improvement of sectoral productivity. There has been an increased demand for credit by ICT-based enterprises in Nigeria given the rise in digital penetration, proliferation of tech start-ups and growth of e-commerce, mobile applications and financial technology services. Yet the amount of credit funneled to the ICT sector is relatively low in proportion to its economic potential. According to the Central Bank of Nigeria (CBN) (2023), less than 10% of the credit allocation in the sectoral credit basket of the last five years was directed towards the ICT industry, indicating that the sector has not fully utilized the benefits of financial leverage to advance technological growth. But even if bank credit is extended to the sector (as it is in many cases), the results are important. The more credit that flows to ICT businesses, the more efficient the services and broadband coverage, the cheaper the digital services and the more inclusive the digital economy. These, in turn, create economic activities in related fields such as education, health, agriculture, and finance as ICT platforms are used to improve service delivery and productivity. In addition, bank credit provides funding for research and development (R&D) activities, which are essential for innovation in ICT. To innovate,

incubators and innovation centers in major Nigerian cities such as Lagos and Abuja typically rely on financial support in the form of loans, grants or soft credit for piloting digital solutions. For example, the expansion of fintech companies such as Flutter wave or Paystack can be attributed in part to access to capital that enabled these firms to test, iterate, and deploy platforms for financing at scale.

Theoretically, Monetarist Theory justifies the inclusion of money supply (M2) as an independent variable in this study, recognizing its influence on the availability of credit, cost of borrowing, and overall growth trajectory of the ICT sector.

The Financial Intermediation Theory posits that efficient financial intermediation reduces transaction and information costs, thereby improving the quantity and quality of investments. Applying this to Nigeria, access to credit through the banking system is essential for ICT firms to scale operations, adopt new technologies, and enhance digital infrastructure.

Empirically, Anyanwu and Bello (2020) investigated how access to credit influences the technological upgrade of ICT-based enterprises in South-West Nigeria. The study used a survey design and collected primary data through questionnaires from 200 ICT business owners. Analysis was done using correlation and regression techniques. Findings showed that businesses with access to structured credit were significantly more likely to adopt advanced digital tools, while credit excluded businesses stagnated. The study concludes that enhancing credit access is crucial to driving innovation and competitiveness in Nigeria's ICT sector.

## **Methodology**

The study makes use of annual time-series data covering the period from 2009 to 2023. The dependent variable is the contribution of the Information and Communication Technology (ICT) sector to Nigeria's Gross Domestic Product (GDP), which serves as a proxy for ICT sector growth. The independent variables include credit to the private sector, prime lending rate, and money supply (M2), while active internet subscriptions are incorporated as an additional explanatory variable to capture the effect of digital penetration on ICT development. These variables were selected because they represent the major financial and economic indicators that directly or indirectly shape the performance of the ICT sector in Nigeria. The data were obtained from reliable secondary sources such as the Central Bank of Nigeria (CBN) Statistical Bulletin, the National Bureau of Statistics (NBS), and the Nigerian Communications Commission (NCC).



Adjusted R-squared	0.986259	S.D. dependent var	0.465772
S.E. of regression	0.054598	Akaike info criterion	-2.680099
Sum squared resid	0.023848	Schwarz criterion	-2.406217
Log likelihood	24.76069	Hannan-Quinn criter.	-2.705452
F-statistic	187.6176	Durbin-Watson stat	2.046272
Prob(F-statistic)	0.000000		

**Source: Authors computation from E view, 2025**

The regression output with LGDP as the dependent variable provides important insights into the relationship between ICT growth, financial variables, and prime lending rate. The coefficient of the lagged GDP variable [LGDP(-1)] is negative but statistically insignificant ( $p = 0.9273$ ), suggesting no strong dependence of current ICTGDP on its immediate past value within the sample. Credit to the private sector (LCPS) has a positive coefficient of 0.514 and is statistically significant at the 10% level ( $p = 0.0687$ ), indicating that expansion in private sector credit exerts a positive effect on ICT sector growth. Broad money supply (LMS) also has a positive coefficient (0.312), but the effect is not statistically significant ( $p = 0.3486$ ), implying that while monetary expansion contributes positively, its direct influence on ICTGDP growth is weak.

The prime lending rate (PLR) carries a negative coefficient ( $-0.018$ ) as expected, showing an inverse relationship with ICTGDP, although the effect is not statistically significant ( $p = 0.1481$ ). Active Internet Subscriptions (LAIS) exert a positive but insignificant effect (coefficient = 0.152,  $p = 0.5542$ ), suggesting that growth in internet penetration alone does not strongly explain changes in ICTGDP within the period. The overall fitness of the model is very strong, with an R-squared of 0.9915 and an adjusted R-squared of 0.9863, meaning that approximately 99% of the variations in ICTGDP are explained by the included variables. The F-statistic is highly significant ( $p = 0.0000$ ), confirming the joint explanatory power of the regressors.

**Discussion of Findings**

The correlation analysis showed strong positive relationships among ICTGDP, credit to the private sector, internet subscriptions, and money supply, while prime lending rate was inversely related to all the variables. This finding implies that access to finance and monetary expansion play critical roles in enhancing ICT development, while high lending rates undermine sectoral growth. The regression results revealed that credit to the private sector (LCPS) is the most significant driver of ICTGDP, significant at the 10% level, confirming the role of credit in enhancing ICT sector performance. Money supply and internet subscriptions had positive but

statistically insignificant impacts, while prime lending rate showed an inverse but insignificant effect. Overall, the findings reinforce the critical role of financial deepening particularly private sector credit in stimulating ICT sector growth and its contribution to GDP in Nigeria, while lending costs (PLR) remain a constraint. These results are consistent with the broader literature emphasizing that ICT development thrives in environments of accessible credit and supportive monetary policies.

## **Conclusion**

The study explored the relationship between the bank credit and the development of the ICT sector in Nigeria in the span of 15 years involving the years 2009 to 2023. The Ordinary Least Squares (OLS) method of estimation in E-view 9 statistical software was used to estimate a multiple regression model. The analysis was modeled to determine individual and combined impact of total private sector credit, prime lending rate, money supply (M2) and active internet subscriptions on the contribution of the ICT sector to the GDP in Nigeria. In particular, total credit of the private sector and credit oriented to ICT showed large positive impacts, which shows that general and sector-specific financing are of great importance in driving growth. Prime lending rate was observed to have negative impacts on ICT contribution indicating that high lending costs are still a key constraint in the financing of ICT. The study therefore concludes that bank credit, when efficiently intermediated and complemented by favorable monetary policies and digital expansion, plays a critical role in driving the sustainable growth of Nigeria's ICT sector.

## **Recommendations**

- i. Given that the relationship between the total private sector credit and ICT contribution to GDP is positive and significant, the policies must be aimed at assuring greater flow of credit into the sector, especially by use of inclusive financing that favor both large ICT corporations and SMEs.
- ii. Since the Prime lending rate has been identified to have negative impacts in increasing the growth of ICT, the monetary authorities in this case need to use interest rate policies to decrease the cost of borrowing in investments related to ICT. Some concessions on priority sectors such as ICT may also be used to spur faster growth.

iii. As the money supply has a positive but relatively weak effect, policies ought to be directed at ensuring that the financial system has sufficient liquidity to sustain credit growth without inflationary forces that would cripple the growth of the ICT sector.

iv. Because active internet subscriptions too have been on the positive side, government and regulators should invest more in broadband penetration, affordable data rates, and national digital infrastructure so as to maximize the growth potential of the ICT sector.

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