



Total Deposit Mobilized, Credits and Performance of Micro, Small and Medium Enterprises in Nigeria

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Abstract

The objectives of this research is to determine the effect of total deposit mobilized on the performance of Micro, Small and Medium Enterprises (MSMEs) in Nigeria and to assess the relationship between total loans and advances (credits) on the performance of MSMEs in Nigeria. The methodology used was quantitative research method. The population of the study involves all microfinance banks in Nigeria; they are about 902 as at June 30 2020 stated by the Central Bank of Nigeria. Secondary data was obtained on total deposits mobilized, total loans and advances, number of bank branches, investment and return on asset from the CBN statistical bulletin, the CBN annual report and statement of accounts for the relevant years; 2016 - 2021 (6 years). A non-random sampling method upon a purposive sampling technique was used and a systematic approach was employed in identifying the process of analyzing the data collected. The research employs Johansen Cointegration and Ordinary Least Square (OLS) test to test the cointegrating relationships between several non-stationary time series data using E-views statistical package. Financial inclusion was discovered to have impacted the performance of MSMEs and the effect of financial inclusion on MSMEs performance was significant. Also, there was a negative correlation between total loans and advances and the performance of MSMEs. However, the effect was not significant on MSMEs performance. The research concluded that increased borrowing might result in the insignificant to turn significant and this may possibly lead to government's inability to fund its future debt commitments when they fall due. The study recommended that government at federal and state levels must provide friendly environment through the availability of infrastructural amenities such as motorable roads, regular water supply, continuous power supply and effective and cheap communication network to encourage investments which will bring more financial inclusiveness from rural dwellers.

Keywords: Credit, Deposit Mobilized, Enterprise, Nigeria, Performance

Word Count: 300

Introduction

The economy of the countries in which Micro, Small, and Medium Enterprises (MSMEs) operates benefit greatly from the work done by these businesses. They serve as a foundation for the development of new businesses and the adaptation and improvement of existing ones, as well as the introduction of new technologies from abroad. Additionally critical are the roles played by micro, small, and medium-sized businesses in both job creation and the development of future business leaders. An all-encompassing economy is essential for the world's vulnerable individuals working in the informal sector, as it encourages day-to-day payments, and financial inclusion is a crucial component of halting social inequalities because it enables people to benefit



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from financial services and enables the low-income but energetic citizenry to readily access lines of credit that can be invested in productive endeavours.

Financial inclusion is a subset of financial development that places more importance on the accessibility of financial products and services to more individuals than on the sheer number of financial institutions in a given area (Richard et al, 2018). There are 37,067,416 MSMEs in Nigeria, and they contribute to the economy by paying tax and employing over 84.02% of the labour force in both the formal and informal sectors, respectively. However, lack of access to capital is a significant barrier to entry for micro, small, and medium-sized enterprises (MSMEs) in Nigeria. This can be related to their inability to raise funding from conventional banks as a result of their riskiness and the lack of asset-based collateral (Jacob & Endeley, 2018).

The SMEDAN Act of 2003 established SMEDAN with the goal of ensuring that micro, small, and medium-sized enterprises (MSMEs) in Nigeria have access to the resources necessary for their growth and development. The overarching goal of SMEDAN is to boost Nigeria's economy. The Agency is the primary government body in Nigeria concerned with the development of micro, small, and medium-sized enterprises.

Micro businesses, according to Nigeria's Central Bank, have 10 workers or less and a total asset value of less than N5, 000,000. The Bank also classifies small firms as those whose total number of employees are from 10 above but not surpassing 49 and whose assets are above N5, 000,000 but not exceeding N50, 000,000 (Oladayo, 2019). Last but not least, the policy classifies businesses as medium-sized if their total number of employees is between 50 and 199, and their total assets are between N50 million and N500 million. Small and medium-sized enterprises (SMEs) have greater access to high-quality financial services, such as loans, savings accounts, micro leasing, insurance, advice, and transfers of capital, thanks to commercial banks (Peter & Ozuzu, 2018). Commercial banks stand out from other credit facilities due to their smaller loan amounts, lack of need for asset-based security, and simplicity of operations. Micro, small, and medium-sized businesses (MSME) have a lot riding on their ability to gain access to financial inclusion.

The financial health of micro, small, and medium-sized businesses can greatly benefit from greater access to credit. Most small and medium-sized enterprises (MSMEs) in Nigeria still struggle to succeed, despite the proliferation of microfinance banks in the country (Nkuna, 2018). In light of this, the primary goal of this research is to ascertain the effect of total deposit mobilized and credits on the performance of micro, small and medium enterprises in Nigeria and to analyse how MSMEs in Nigeria fare after being financially included. The objectives are to determine the effect of total deposit mobilized (number of accounts, current and savings) on the performance of micro, small and medium enterprises in Nigeria and to assess the relationship between total loans and advances (credits) on the performance of micro, small and medium enterprises in Nigeria.



Literature Review

Micro, Small and Medium Enterprises in Nigeria

Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in Nigeria's economy, representing a diverse and vibrant sector that encompasses a wide range of businesses. These enterprises are characterized by their relatively small workforce and limited operational scale compared to larger corporations (Tambunan, 2019). In Nigeria, MSMEs are not only significant contributors to the country's GDP but also serve as vital sources of employment, innovation, and economic development. At the grassroots level, micro-enterprises form the backbone of the Nigerian economy (Sedyastuti et al, 2020). These tiny businesses, often family-owned, operate in various sectors, including agriculture, retail, crafts, and services. Micro-entrepreneurs, such as street vendors, artisans, and small-scale farmers, contribute significantly to local economies, providing essential goods and services within their communities (Mardikaningsih et al, 2022). Despite their size, micro enterprises collectively have a substantial impact on employment and poverty alleviation. Small businesses in Nigeria range from small-scale manufacturing units to service providers, employing more people than micro-enterprises but still operating on a relatively modest scale. These enterprises often face challenges related to access to finance, technology, and market penetration. Small enterprises are found in sectors like manufacturing, agribusiness, hospitality, and retail (Tambunan, 2019). They play a vital role in creating jobs and fostering entrepreneurship, contributing to economic growth and regional development. Medium-sized businesses in Nigeria represent a more advanced and structured segment of the MSME sector. These enterprises have a larger operational scale, employ a significant workforce, and often have a broader market reach. Medium enterprises are involved in diverse industries, including manufacturing, technology, export-oriented businesses, and specialized services⁵. They contribute substantially to the country's industrialization efforts, promoting innovation, and enhancing competitiveness in both domestic and international markets.

MSMEs in Nigeria face various challenges, including limited access to credit, inadequate infrastructure, regulatory constraints, and a lack of skilled labor (Maksum, et al 2020). However, the Nigerian government and various stakeholders recognize the importance of this sector and have implemented initiatives to support MSMEs. These initiatives include access to credit schemes, capacity-building programs, technology support, and market linkages, all aimed at empowering these enterprises to thrive and contribute significantly to the nation's economic growth. The micro, small, and medium enterprises in Nigeria represent a diverse and dynamic sector that drives economic activity, fosters innovation, and provides employment opportunities. As the government continues to invest in supportive policies and initiatives, MSMEs are poised to play an even more significant role in the country's economic transformation, fostering entrepreneurship, reducing unemployment, and promoting sustainable development (Wahyuni et al, 2023).

Total Profit

Total profit, in the realm of business and finance, represents the comprehensive financial gain a company or an individual entity achieves after deducting all incurred expenses from the total revenue earned within a specific period (Purwanto et al, 2022). It is a fundamental measure of a business's financial performance, reflecting its ability to generate surplus income after covering



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all costs associated with its operations. Total profit essentially provides a holistic view of the financial health and viability of an entity, encompassing various revenue streams and expenditure categories, at its core, total profit includes all forms of income generated by the business, ranging from sales of products and services to investment returns, royalties, and other sources of revenue (Khadafi et al, 2021). This figure is a key indicator of the business's revenue-generating capabilities, illustrating its capacity to attract customers, sell products, and deliver services effectively (Pagaddut, 2021). To arrive at total profit, all operating costs and expenses incurred during the business operations are subtracted from the total revenue. Operating expenses cover a wide array of costs, including raw materials, labor, utilities, marketing, administrative expenses, taxes, and interest payments on loans (Fitriana, 2022). Deducting these expenses from the total revenue yields the net profit, which, when further adjusted for non-operating income and expenses, arrives at the total profit figure.

Total profit is a vital metric for businesses for several reasons. Firstly, it indicates the efficiency of the business in managing its resources and controlling costs, a consistent and positive total profit demonstrates that the business is generating more revenue than it spends, suggesting financial stability and sustainability (Purwanto et al, 2022). On the contrary, a negative total profit indicates that the business expenses exceed its revenue, signaling potential financial challenges and necessitating strategic cost-cutting measures or revenue-enhancing strategies (Indra et al, 2020). Total profit serves as the basis for various financial ratios and analyses, it is a crucial component in calculating profitability ratios such as net profit margin, return on investment (ROI), and earnings per share (EPS) (Indra et al, 2020). Investors, stakeholders, and analysts often use these ratios to assess the business's performance, profitability, and overall financial strength, making total profit a pivotal factor in determining the entity's attractiveness to potential investors and creditors (Kustina, 2018). Total profit provides essential insights for strategic decision-making, by analyzing trends in total profit over different periods, businesses can identify patterns, evaluate the impact of marketing initiatives, assess cost-efficiency measures, and make informed decisions about expansion, investment, and diversification (Kamalaveni, 2019).

Total Income

Total income represents the overall sum of money earned or received by an individual, household, organization, or country within a specified period (Wibiseno & Usman, 2021). It encompasses various sources of revenue, including but not limited to wages, salaries, profits, investments, rents, royalties, and government subsidies. This financial metric provides a comprehensive overview of an entity's earning capacity and plays a pivotal role in assessing its economic well-being and financial health, total income is derived from a multitude of sources (Zahara et al, 2018). For individuals and households, it includes earnings from employment, business ventures, investments in stocks and real estate, as well as any government assistance or social benefits. In the context of businesses, total income encompasses revenue generated from sales, fees for services rendered, interest on investments, and any other income streams relevant to the organization's operations (Dewi, 2019). For governments, total income comprises tax revenue, grants, and other forms of public income.



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Total income serves as a key indicator of an entity's financial strength and economic stability, it determines the standard of living, enabling access to basic necessities, education, healthcare, and recreation (Tekola & Gidey, 2019). In the business realm, total income reflects the company's revenue-generating capabilities and its ability to cover operational costs, invest in expansion, and generate profits. For governments, total income dictates the nation's budgetary allocations, public spending, and social welfare programs, influencing the overall development and well-being of its citizens (Suhaili & Sugiharsono, 2019). Calculating total income involves aggregating all forms of earnings and receipts over a specific period, often on a monthly, quarterly, or annual basis (Manna & Mistri, 2017). This calculation includes not only regular income but also irregular or one-time sources of revenue. Total income is a gross figure, representing the total revenue before any deductions or taxes. Total income plays a pivotal role in personal financial planning, business strategy, and government policy-making, for individuals, it guides budgeting, savings, and investment decisions, helping them plan for the future and achieve financial goals (Sembiring et al, 2023). In businesses, total income influences pricing strategies, investment decisions, and expansion plans. Governments use total income data to formulate economic policies, allocate resources, and design social welfare programs to address the needs of the populace (Salim et al, 2020).

The aggregate total income of a country is a critical indicator of its economic growth and prosperity. Economists often use Gross Domestic Product (GDP), which includes the total income generated within a country's borders, as a measure of its economic performance (Zanjurne, 2018). A growing total income at the national level reflects a thriving economy, increased employment opportunities, and an improved quality of life for citizens (Kumar, 2017).

Total Asset

Total assets represent the combined value of all resources, tangible and intangible, owned and controlled by an individual, company, organization, or government entity at a specific point in time (Purwanto et al, 2022). These assets include a wide array of items such as cash, investments, properties, equipment, intellectual property, and receivables. Total assets are a fundamental financial metric, serving as a key indicator of an entity's wealth, financial stability, and overall economic value, it comprise both current assets and non-current assets (Jena et al, 2018). Current assets include cash and assets that are expected to be converted into cash or used up within one year, such as accounts receivable and inventory. Non-current assets, on the other hand, are assets expected to provide economic benefits beyond one year, such as real estate properties, machinery, patents, and trademarks (Pagaddut, 2021). Total assets are a vital measure of an entity's financial health and capacity, for businesses, a substantial total asset value signifies the company's ability to invest in operations, expansion, and research and development (Atika & Sukoco, 2019). It also acts as a safety net, providing a cushion against financial downturns and liabilities, total assets encompass savings, investments, properties, and valuable possessions, representing their net worth and financial security (Kaveri, 2018).

Total assets are calculated by summing up the book value or market value of all assets owned by the entity, in the context of a company, the balance sheet provides a detailed breakdown of total assets, categorizing them into various sections such as current assets, property and equipment,



intangible assets, and investments (Kaur & Kaur, 2018). Investors, analysts, and stakeholders use this information to assess the company's financial strength, evaluate its ability to generate future cash flows, and estimate its overall value³³. Total assets play a critical role in strategic decision-making, companies use this metric to gauge their capital base and make decisions regarding financing, investment, mergers, and acquisitions (Hattiangbire & Harkal, 2021). It also influences a company's creditworthiness, affecting its ability to secure loans and negotiate favorable terms with lenders. Furthermore, total assets serve as a basis for evaluating return on investment and other financial ratios, providing insights into the efficiency of resource utilization (Lubis & Irawati, 2022). On a macroeconomic level, the total assets of a nation's businesses and individuals contribute to the country's overall wealth and economic development. A robust and diverse asset base fosters economic stability and resilience, attracting investments and promoting sustainable growth (Sinha et al, 2021). Additionally, total assets reflect the nation's capacity for innovation, infrastructure development, and human capital investment, all of which are crucial drivers of long-term economic prosperity (Indra et al, 2021).

Total Deposit Mobilization

Total deposit mobilization refers to the collective efforts and strategies employed by financial institutions to attract and accumulate funds from individuals, businesses, and other entities within the economy (Marcelin et al, 2022). It is a crucial aspect of banking operations, serving as the lifeblood that sustains a bank's lending activities and overall financial stability. The process of total deposit mobilization involves various types of deposits, including savings accounts, current accounts, fixed deposits, and recurring deposits, each catering to different customer needs and preferences (Rehman, 2020). Banks and financial institutions employ a plethora of methods to comprehensively mobilize deposits, one of the primary strategies is offering competitive interest rates on deposits (Maity & Sahu, 2020). Higher interest rates attract potential depositors, encouraging them to park their surplus funds in the bank, where their money can grow over time (Gunasekara & Kumari, 2018). These rates are often determined by market conditions, regulatory guidelines, and the banks' own financial health.

Banks utilize effective marketing and advertising campaigns to create awareness about their deposit products, through these campaigns they highlight the benefits of saving with their institution, such as security, ease of access, and attractive interest rates (Okunlola et al, 2020). Additionally, personalized services, such as relationship management and advisory services, enhance the overall customer experience, making clients more inclined to deposit their funds with the bank (Islam et al, 2019). Diversifying the range of deposit products tailored to different customer segments enhances deposit mobilization efforts (Ajefu & Ogebe, 2019). For instance, offering specialized accounts for children, senior citizens, or specific professions caters to the unique needs of these demographics, attracting a broader customer base.

Total Loans and Advances

According to Le, Anh and Farhad (2019), total loans and advances are the lifeblood of any banking system, fueling economic growth and development by providing financial resources to individuals, businesses, and governments. This vital aspect of banking involves the process of lending money to borrowers in the form of various credit facilities, such as personal loans,



business loans, mortgages, and overdrafts, among others (Ozili, 2021). Total loans and advances signify the total amount of funds that a bank has disbursed to borrowers, reflecting its commitment to supporting the aspirations and endeavors of its clients (Óskarsdóttir, Bravo, Sarraute & Baensens, 2019). Banks meticulously assess the creditworthiness of potential borrowers before extending loans and advances. This assessment involves a thorough analysis of the borrower's financial history, credit score, repayment capacity, and the purpose of the loan. By conducting these evaluations, banks mitigate risks and ensure that the loans are extended to individuals and businesses that are capable of repaying the borrowed funds (Sanderson, Mutandwa & Roux, 2018).

One of the primary components of total loans and advances is personal loans, these loans are tailored to meet the diverse financial needs of individuals, ranging from education and healthcare expenses to travel and debt consolidation (Sahay, et al, 2020). Personal loans provide a flexible source of funds for borrowers, enabling them to fulfill their immediate requirements without disrupting their long-term financial plans. Business loans and advances are instrumental in supporting the growth and expansion of enterprises. Small, medium, and large businesses rely on these financial instruments to invest in infrastructure, purchase equipment, finance working capital needs, and explore new business opportunities (Mushtaq & Bruneau, 2019). Banks play a pivotal role in fostering entrepreneurship and innovation by providing timely and accessible business loans, thereby contributing significantly to job creation and economic progress.

Financial Inclusion

The term "financial inclusion" is used to describe the timely and cost-effective provision of financial services to underserved and low-income populations. It entails the accessibility and affordability of a variety of formal financial services. The extent to which formal financial services are made available to the underserved is measured against a metric known as "financial inclusion" (Salim, Susilastuti & Rafiqah, 2020). It is often used to symbolise the effort put forth to help the economically disadvantaged participate in the formal economic process through the acquisition and consistent use of mainstream financial services. Access to inexpensive financial resources and services, particularly for people with lower incomes, is what we mean when we talk about financial inclusion. It might alternatively be defined as providing low-income and unbanked people with access to financial services. It's the antithesis of financial exclusion, which occurs when some groups of people, often those with lower incomes, are denied access to financial services. The ultimate goal of financial inclusion is to facilitate people's access to banking services. This solves a fundamental problem for developing countries by letting formal financial systems return to their intended function of encouraging the expansion of micro, small, and medium-sized businesses. Because poverty is often equated with financial exclusion, improving the poor's access to simple, accessible, and secure financial services is a necessary condition for fostering inclusive growth. Many people are cut off from the economy both immediately and indirectly. People who can't access formal financial services are forced to rely on the shadow economy, where services are often unreliable, costly, and disorganised. A bank account and the ability to save and invest can help the poor escape poverty, thus expanding access to these services is crucial (Purwanto et al, 2022). Better financial inclusion leads to more loan origination and wealth generation, as well as more development and financial activity, all of



which are essential for people with a wide range of requirements to have access to savings, payment, loan, and risk mitigation alternatives (Fitriana, 2022).

Financial Inclusion and Micro, Small and Medium Enterprises

The importance of financial development and an inclusive rural financial system in developing nations is often thought to be greater in regions with higher population densities. Contrarily, it is also clear that a sizable portion of the population in these countries resides in rural areas where they have no access to formal financial institutions. Micro, small, and medium-sized businesses in rural areas face a number of challenges, one of the most fundamental being a lack of capital. This compels many MSMEs in developing nations to get informal finance while the minority that obtained credit and insurance from a wide array of rural financial intermediaries were actively supervised. The goal is to avoid agents from getting distracted from their efforts to increase the likelihood that their financed projects will succeed and/or decrease the likelihood that cash flows would be diverted from the projects to make promised repayments.

The Relevance of Financial Inclusion

To put it another way, less than 50% of adults around the world have access to formal financial services. The situation is particularly dire in Africa and other emerging nations, making it a worldwide challenge to expand access to financial services. The international objective has been to ensure that all adults can gain access to financial services regardless of their background, gender, age, income, geography, or level of education. Financial isolation is a major contributor to rising poverty in Nigeria. If Nigeria is to reach its potential in terms of financial inclusion, then 70 percent of its population must be lifted out of poverty. By bringing this group into the mainstream, we can raise national output, create more jobs, and alleviate poverty. Financial intermediaries' capacity to mobilise savings is bolstered by expanded access to deposit facilities, and households' capacity to make productive investments is bolstered by improved access to financing, both of which contribute to economic growth.

Theoretical Review

Demand and Supply Side Twin Theory

Supply and demand In the Twin Theory, financial inclusion and financial literacy are treated as complementary pillars. An inclusive expanding economy requires both financial inclusion (which acts on the supply side by making available the financial market/services that people need) and financial literacy (which drives the demand side). Unlocking the vast untapped potential of a people mired in poverty and its attendant deprivations makes the development of the rural economy essential for sustainable, inclusive, and equitable growth. The financial economy is growing more inclusive due to forces on both the supply and demand sides. To a significant extent, the burden of ensuring that low-income and marginalised communities have access to banking services is on the shoulders of the banks themselves. Even if it's risky, supporting startups is essential to widening access to capital. Apart from the supply side variables, demand side factors, such as lesser income and or asset ownership, also greatly effect financial inclusion. To take advantage of growth prospects in areas like health, education, housing, and entrepreneurship, low-income individuals and small and medium firms often



employ savings or funds from internal sources rather than external, formal sources of financing (Lal, 2021).

The key to boosting financial inclusion, especially in the short term, lies in appropriate and effective supply-side initiatives, which are necessary to stimulate the demand for formal financial sector goods among the financially excluded consumers. Products not tailored to the informal sector, strict processes with difficult and intensive documentation, the availability and acceptance of technology, and the outreach of existing financial institutions are all examples of contemporary supply-side problems.

The demand and supply twin hypothesis is a cornerstone of economics, yet it has its detractors. Critics have raised various issues with the model's assumptions, limits, and applicability to actual world settings, despite the model's essential role in understanding market dynamics. The demand and supply model is often criticised for its underlying premise of perfect competition. Markets in the real world, critics say, often feature aspects like monopolies, oligopolies, and monopolistic competition, and so diverge from the idealised circumstances of perfect competition. In such imperfect markets, the demand and supply model's simple equilibrium prediction may not adequately reflect the intricacies of actual market interactions.

The belief that market players will always act rationally has also come under fire. Some have argued that the demand and supply model is flawed because it assumes that buyers and sellers would always make informed decisions. Behavioural economics implies that people's limited rationality and susceptibility to cognitive biases may explain why the real world often deviates from theoretical expectations. Externalities are the unintended consequences, either positive or negative, of economic activity that impact parties outside the economy. Environmental deterioration, pollution, and social injustice are often highlighted as instances of the larger impact of economic transactions that the demand and supply model may fail to capture.

The demand and supply paradigm could be criticised for being unchanging. This model has been criticised for not taking into account the ever-changing nature of markets, which can be affected by factors like as new technologies, consumer tastes, and national and international economies. The model's predictive effectiveness and applicability may be diminished if it lacks these flexible features. One major point of contention is that equilibrium is assumed to be a fully autonomous and self-correcting process in the model. Sticky pricing and salaries, for example, can prevent the rapid adjustment promised by the demand and supply model from happening in practise. The theory of demand and supply is still a cornerstone of economics, although it hasn't been able to avoid criticism. Critics emphasise concerns linked to market defects, behavioural reality, externalities, static assumptions, and the simplifying of complicated economic dynamics. In light of these criticisms, economists and policymakers are urged to round out the demand and supply model with additional frameworks and considerations.

Relevance of Demand and Supply Twin Theory to Micro, Small and Medium Enterprises Performance in Nigeria

The Demand and Supply Twin Theory provides a valuable framework for understanding the performance of Micro, Small, and Medium Enterprises (MSMEs) through the lens of total



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income. This theoretical construct, rooted in economic principles, offers a nuanced perspective on the market dynamics influencing the financial health of MSMEs. At its core, the Demand and Supply Twin Theory posits that the equilibrium between demand and supply determines prices and quantities in a market. Applied to MSMEs, this theory becomes instrumental in assessing their performance by considering the factors that influence both the demand for their goods or services and the supply-side constraints they face.

Total income emerges as a critical metric within this framework. The demand for MSME products or services is intricately linked to the purchasing power of consumers, which, in turn, is reflected in their total income. A higher total income within the consumer base implies increased demand for goods and services provided by MSMEs. Thus, by analyzing changes in total income, policymakers, economists, and businesses gain insights into the demand side of the MSME market, offering a robust indicator of their overall performance. On the supply side, total income also plays a pivotal role. MSMEs, being key contributors to economic activities, generate income through their operations. The total income generated by MSMEs reflects their production capacity, efficiency, and competitiveness in the market. As MSMEs thrive and expand, their total income is expected to increase, signaling positive supply-side dynamics and a healthy business environment.

The interplay between demand and supply, as encapsulated in the Demand and Supply Twin Theory, is crucial for understanding the market conditions that shape the performance of MSMEs. For instance, if there is a disconnect between demand and supply due to factors like economic downturns or supply chain disruptions, it can impact the total income of MSMEs, influencing their ability to sustain operations and contribute to economic growth. The Demand and Supply Twin Theory allows for a comprehensive analysis of the factors influencing total income, including government policies, market competition, and global economic trends. By considering both demand and supply factors, this theory offers a holistic approach to measure the performance of MSMEs and provides a foundation for developing targeted strategies to support their growth. The relevance of the Demand and Supply Twin Theory to measure the performance of Micro, Small, and Medium Enterprises, particularly through the lens of total income, lies in its ability to capture the intricate dynamics of market forces. This framework allows for a nuanced understanding of how demand and supply factors influence the financial health of MSMEs, making it a valuable tool for policymakers, economists, and business stakeholders seeking to enhance the resilience and sustainability of these enterprises.

The Demand and Supply Twin Theory provides a pertinent framework for assessing the performance of Micro, Small, and Medium Enterprises (MSMEs) through the prism of total profit. Rooted in economic principles, this theory offers a nuanced perspective on market dynamics, enabling a comprehensive understanding of how demand and supply factors contribute to the financial health of MSMEs. Total profit emerges as a critical metric within this framework, encapsulating the financial viability and success of MSMEs. On the demand side, the theory recognizes that consumer demand is a key driver of business activity. Total profit reflects the revenue generated from the sale of goods or services, which, in turn, is influenced by the demand for these offerings. By analyzing fluctuations in total profit, stakeholders gain insights into the responsiveness of MSMEs to shifts in consumer demand, enabling a more accurate assessment of their market performance.



On the supply side, total profit also serves as a vital indicator. MSMEs generate profit through their production and operational activities. The theory contends that factors such as efficient resource utilization, production scalability, and supply chain management influence the supply side of the market. Monitoring changes in total profit provides a holistic view of the supply-side dynamics, offering insights into the effectiveness and competitiveness of MSMEs in the broader economic landscape. The interplay between demand and supply, as encapsulated in the Demand and Supply Twin Theory, is particularly relevant for understanding the factors that shape total profit in the MSME sector. For instance, an increase in consumer demand driven by economic growth or effective marketing strategies can positively impact total profit. Conversely, disruptions in the supply chain, changes in market competition, or shifts in consumer preferences can influence total profit negatively.

The Demand and Supply Twin Theory facilitates a thorough analysis of the external factors affecting total profit, such as regulatory environments, market structures, and global economic trends. By considering both demand and supply factors, this theoretical framework provides a holistic approach to measuring the performance of MSMEs, offering a more comprehensive understanding of the challenges and opportunities that impact their profitability. The relevance of the Demand and Supply Twin Theory to measure the performance of Micro, Small, and Medium Enterprises, especially through the lens of total profit, lies in its ability to capture the intricate dynamics of market forces. This framework enables stakeholders, including policymakers, economists, and business leaders, to assess and enhance the financial sustainability of MSMEs by addressing the multifaceted influences of demand and supply on total profit.

The Demand and Supply Twin Theory provides a robust analytical framework for assessing the performance of Micro, Small, and Medium Enterprises (MSMEs) with a focus on total assets. This economic theory, deeply rooted in the principles of market dynamics, proves highly relevant in unraveling the multifaceted aspects that shape the financial health of MSMEs. Total assets become a central metric within this framework, encapsulating the wealth and resource base of MSMEs. On the demand side, the theory acknowledges that consumer demand is a driving force for business activity. Total assets, representing the cumulative value of an enterprise's resources, including capital, equipment, and inventory, are influenced by the demand for goods or services. Thus, shifts in consumer demand can be reflected in changes to total assets, offering a valuable lens through which to gauge the market responsiveness of MSMEs.

On the supply side, total assets are equally crucial. MSMEs generate assets through their production and operational activities. The theory posits that factors such as production efficiency, scalability, and effective resource management impact the supply side of the market. Monitoring changes in total assets provides insights into the capacity and competitiveness of MSMEs, contributing to a comprehensive assessment of their overall performance in the economic landscape.

The interplay between demand and supply, as conceptualized in the Demand and Supply Twin Theory, is especially pertinent for understanding the factors that shape total assets in the MSME sector. An increase in consumer demand can lead to higher revenues and, consequently, an expansion of total assets. Conversely, challenges in the supply chain, increased competition, or



economic downturns may impact total assets negatively. The theory allows for a nuanced analysis of external factors influencing total assets, such as regulatory frameworks, market structures, and broader economic trends. By considering both demand and supply factors, this theoretical framework provides a holistic approach to measuring the performance of MSMEs, offering a more comprehensive understanding of the challenges and opportunities that impact the accumulation and utilization of total assets. The relevance of the Demand and Supply Twin Theory in measuring the performance of Micro, Small, and Medium Enterprises, particularly through the lens of total assets, lies in its ability to unravel the intricate dynamics of market forces. This framework empowers stakeholders, including policymakers, economists, and business leaders, to assess and enhance the financial resilience of MSMEs by considering the multifaceted influences of demand and supply on total assets.

Relevance of the Demand and Supply Side Twin Theory to Financial Inclusion

The Demand and Supply Side Twin Theory holds significant relevance to the concept of financial inclusion, providing a theoretical framework that elucidates the dynamics between the demand for and the supply of financial services. Financial inclusion, aimed at providing access to and usage of financial services for all individuals and businesses, aligns with the central tenets of this theory in several ways.

On the demand side, the theory acknowledges the diverse needs and preferences of individuals and businesses for financial services. Financial inclusion, in this context, becomes a response to the demand for inclusive and accessible financial solutions. Individuals and businesses, especially those in underserved or unbanked populations, seek financial services that cater to their specific requirements, ranging from basic banking services to more sophisticated financial products. The theory emphasizes the importance of understanding and responding to this demand to foster a financially inclusive environment.

On the supply side, the theory recognizes the role of financial institutions and service providers in meeting the demand for financial services. Financial inclusion initiatives often involve creating an enabling environment for institutions to expand their offerings, reaching a broader segment of the population. This may involve regulatory reforms, innovations in financial technology (fintech), and the development of new products and services to bridge gaps in the financial services market. The theory guides policymakers and financial institutions in understanding how to effectively supply the needed financial services to meet diverse demands. The interplay between the demand and supply sides, as conceptualized in the theory, underscores the importance of achieving a balance for successful financial inclusion. Initiatives designed to increase financial access must consider the evolving demands of the target populations while simultaneously ensuring that the supply side is equipped to meet these demands effectively. The theory's focus on equilibrium in market dynamics aligns with the overarching goal of creating a financial ecosystem that caters to the diverse needs of all individuals and businesses.

The Demand and Supply Side Twin Theory recognizes the role of external factors, such as regulatory frameworks, economic conditions, and technological advancements, in shaping both demand and supply dynamics. In the context of financial inclusion, understanding these external influences becomes crucial for designing policies and strategies that can foster an inclusive



financial environment. The Demand and Supply Side Twin Theory provides a relevant and insightful framework for understanding the complexities of financial inclusion. By examining the dynamics between the demand for and the supply of financial services, the theory offers guidance for policymakers, financial institutions, and stakeholders working towards the overarching goal of providing inclusive financial services to diverse populations.

Empirical Review

There has been a lot of focus on financial inclusion as a means to eradicate poverty. The provision of financial services to the unbankable and financially excluded is seen by major international development organizations as essential to delivering social stability, economic possibilities, and sustainable development. Among these are the World Bank and the European Union, working together with the Group of Twenty nations.

By expanding access to credit and capital for the unbanked, microfinance has been heralded as a silver bullet for boosting MSMEs in emerging markets. Microfinance banks have been around for a while now, and they've been hailed for their potential to reduce the number of individuals on the continent who lack access to formal financial services. But the current rate of exclusion in Nigeria calls for some sort of action to be taken. Many countries fall somewhere in the middle, with inclusion rates ranging from about 23.5 percent in South Africa to about 78 percent in Mozambique. There is still the question of whether or not MFBs have fulfilled this crucial promise of financial inclusion. This study sheds light on this subject by investigating how access to microfinance bank services and broader financial markets affects the success of small and medium-sized enterprises (SMEs) in Nigeria.

Since the world's poor and powerless are increasingly left out of the financial system, the World Bank has committed to ending financial exclusion by 2020¹⁵⁷. This initiative is known as Universal Financial Access (UFA). As a direct result of this, the G-20 nations and international development institutions have unanimously pledged their support for UFA 2020 and emphasised financial inclusion as a critical development policy aim. Notably, the Collaborative Group to Assist the Poor (CGAP) prioritises providing financial services to the unbanked in developing countries by connecting microfinance banks with the formal financial system. It is been argued that this is the one economic policy that can help everyone. Still, poverty is pervasive in developing nations, and financial inclusion rates have not changed despite efforts to help them. For instance, half of all adults worldwide still do not have access to banking services¹²⁷. Therefore, MFBs need to be long-lasting and efficient in its resource management if they are to enable financial inclusion and boost the well-being of the world's poor. According to the available evidence, enhancing the quality of the institutional environment in which these institutions function can be one means of accomplishing this goal.

Despite microfinance's growing importance as a policy tool in Nigeria's fight against financial exclusion, the country still faces significant obstacles. Institutional difficulties are an additional obstacle for MFBs to overcome. For instance, the MFBs are affected by the regulatory environment, the degree of openness, and the maturity of the financial system, all of which contribute to economic expansion. For instance, Nigeria is still lagging in facilitating a suitable climate for business growth in areas such as legislation, quality institutional governance, and



transparency. High levels of corruption, a lack of a strong rule of law, and a lax regulatory climate for MFBs all characterise Nigeria's institutional setting. Creditor and shareholder protection regulations are also either inadequate or rarely enforced. Furthermore, efficient institutional frameworks decrease transaction costs and the cost of enforcing contracts, which in turn promotes business growth and development. However, studies have shown that a lack of an adequate institutional environment is a major contributor to the slow economic growth and poor financial performance of many firms in developing countries (Senyo, Osabutey & Kan, 2020; Klapper, Singer, Ansar & Hess, 2020).

As a result, the foregoing factors may affect MFBs' capital structure and their capacity to meet double-bottom-line goals of financial sustainability, poverty eradication, and facilitating financial inclusion. For example, a lack of effective consumer protection measures and weak rule of law encourages over-borrowing and loan delinquencies, and it may be argued that endemic corruption and government bureaucracy provides an unfavorable business environment for MFBs (Patel, et al, 2021). Setting up an MFB to address financial exclusion in rural areas is sometimes hampered by overwhelming procedural and administrative hurdles (Sulong & Bakar, 2018).

Methodology

This research employs quantitative approach focused on analyzing data collected. The population of the study involves all microfinance banks in Nigeria; they are about 902 as at June 30 2020 stated by the Central Bank of Nigeria. The secondary data was obtained on Total Deposits Mobilized, Total Loans and Advances, Number of Bank Branches, Investment and Return on asset from the CBN Statistical Bulletin, the CBN Annual Report and statement of accounts for the relevant years. This information covers a period of 2016 - 2021 (6 years). A non-random sampling method upon a purposive sampling technique was used. The empirical analysis conducted for this research utilizes panel data, comprising of observations of the same units in several time-periods. A systematic approach was employed in identifying the process of analyzing the data collected. The research employs Johansen Cointegration and Ordinary Least Square (OLS) test to test the cointegrating relationships between several non-stationary time series data using E-views statistical package.

Table 1: Descriptive Analysis of Variables

	TDM	TLA	NMB	A	RMSME
Mean	4425939	4017673	196.988	6816875	56132149
Median	3080720	2403291	155.585	5875568	59425200
Maximum	16980208	15855231	399.96	14473752	73382770
Minimum	9235	438891	118.57	931469	31064270
Std. Dev.	4616795	4330399	89.3984	3993154	14594119
Skewness	1.593702	1.455803	1.041597	0.543301	-0.388316
Kurtosis	4.889349	4.281172	2.615235	2.335357	1.6402
Jarque-Bera	11.44099	8.432373	3.739787	1.352046	2.043512
Probability	0.003278	0.014755	0.15414	0.508636	0.359962
Sum	88518786	80353464	3939.76	136000000	1120000000
Sum Sq. Dev.	405000000000	356000000000	151849.40	3030000000	4050000000
Observations	20	20	20	20	20

Source: Author's Computation from E-view 9

Tables 1, variables: Total Deposit Mobilized (TDM), Total Loans and Advances (TLA), Number of Microfinance Bank Branches (NMB), Total Assets (AT) were used in achieving the study objectives, The result of the descriptive statistics shows that 56132149 was the average with a corresponding maximum and minimum of 73382770 and 31064270 respectively during the study period. The average of financial inclusion was 4425939 with a corresponding maximum and minimum of 16980208 and 9235 respectively. The average of total asset was 4017673 with a corresponding maximum and minimum of 15855231 and 438891 respectively. The average of total income was 6816875 with a corresponding maximum and minimum of 14473752 and 931469 respectively. The average of total profit was 196.988 with a corresponding maximum and minimum of 399.96 and 118.57 respectively. The average of return on asset was 13.4305 with a corresponding maximum and minimum of 22.71 and -19.53 respectively. The average of non-performing loan was 568148.3 with a corresponding maximum and minimum of 1416203 and 52265 respectively during the study period.

Presentation of Data

Hypotheses Testing

Hypothesis One

H₀: There is no significant effect between total deposit mobilized and performance of MSMEs in Nigeria.

H₁: There is significant effect between total deposit mobilized and performance of MSMEs Nigeria.

Hypothesis Two

H₀: There is no significant effect between total loan and advances and performance of MSMEs Nigeria.

H₁: There is significant effect between total loan and advances and performance of MSMEs Nigeria.

Table 2: Short Run and Long Run Analysis of Financial Inclusion Reaction Function

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11789482	5681632.	2.075017	0.0556
TDM	-0.902895	0.447943	-2.015647	0.0621
TLA	325249.5	67666.46	4.806657	0.0002
NMB	-4.384546	0.892098	-4.914869	0.0002
A	0.276411	0.970359	0.284854	0.7797
R-squared	0.861067	Mean dependent var		56132149
Adjusted R-squared	0.824018	S.D. dependent var		14594119
S.E. of regression	6122261.	Akaike info criterion		34.30508

Sum squared resid	56200000	00 Schwarz criterion	34.55401
Log likelihood	-338.0508	Hannan-Quinn criter.	34.35367
F-statistic	23.24142	Durbin-Watson stat	1.023797
Prob(F-statistic)	0.000003		

Source: Computed Result from (E-Views 9)

Table 2 shows the short run multiple regression results of the financial reaction model. The coefficient of determination depicted by an R^2 value of 0.86 or 86% indicates that 86% of changes in the independent or explanatory variables (total deposits mobilized, total loans and advances, number of microfinance bank branches and access to ATM, POS, and M-Banking) account for the change in gross domestic product. Put differently, the explanatory power of the model is 86% which is a very good fit. The negative coefficient of financial inclusion (-0.90) is in tandem with apriori expectation though statistically insignificant. Specifically, the negative sign indicates that an increase in financial inclusion will result to a 90% decrease in performance of MSMEs.

Long Run Analysis Result

Unit Root Test

The long run analysis is done by conducting the augmented dickey fuller unit root test to ascertain the presence or otherwise of unit root in the data set. The test is necessary to eliminate the error of interpreting spurious regression. There are various methods of testing for the presence of unit root. However, the Augmented Dickey Fuller (ADF) test is the preferred test used for this study.

Table 3: ADF Unit Root Test

VARIABLES	LEVELS		1 st DIFFERENCE		Order of Integration
	ADF Test Statistics	Test Critical Value @ 5%	ADF Test Statistics	Test Critical Value @ 5%	
RMSME	-3.848	** -3.759	-3.104	-3.690	0(1)
TDM	-2.82	-3.759	-4.906	** -3.73	I(1)
TLA	-0.566	-3.710	-4.21	** -3.710	I(1)
NMB	3.791	** -1.960	-0.822	-1.961	0(1)
A	-0.328596	-3.02997	-3.492542	** -3.040391	1(1)

Source: Computed Result from (E-views 9)

Table 3 shows the result of the ADF unit root test computed using E-views statistical package.



The ADF test was calculated at 0.05 (5%) level of significance at levels and first difference. The ADF test in the Table 3 indicates that the variables were stationary at various orders. Specifically, Micro, Small, and Medium Enterprises (MSMEs) was stationary at levels, while Total Deposit Mobilized (TDM), and Total Loans and Advances (TLA) are stationary at first difference.

Table 4: Test for Co-integration

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	Prob.**	Max-Eigen Statistic	Prob.**
None *	0.918941	102.9646	0.0000	45.22636	0.0015
At most 1 *	0.826944	57.73827	0.0045	31.57457	0.0145
At most 2	0.657813	26.1637	0.1239	19.30318	0.0884
At most 3	0.312149	6.860519	0.5939	6.735285	0.5209
At most 4	0.006933	0.125234	0.7234	0.125234	0.7234

Trace and Max-eigenvalue tests indicates 2 cointegrating equation(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Source: Authors Computation from E-Views

Table 4 is a combination of the trace and max-eigen statistics of the Johansen co-integration test. The result of both the trace and max-eigen co-integration shows that there are two (2) co-integrating equations. The result in Table 4 is in tandem with the previous ADF unit root tests where only two (2) variables were stationary at levels. The existence of co-integrating equations thus, justifies the use of a parsimonious Error Correction Model.

Error Correction Model (ECM)

Error correction model (ECM) is a process of incorporating the short-run and long run behaviors an economic (Gujarati & Sangeetha, 2004). To capture the short-run deviations that might have occurred within the period of the study. This is done by following the general-to-specific rule. Specifically, we start by specifying the over-parameterized preferred parsimonious short-run dynamic result. The estimated result of the parsimonious ECM obtained is shown in Table 5.

Table 5: Parsimonious Error Correction Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(CF(-1))	-0.289965	0.087514	3.313355	0.0062
D(ER(-1))	-57032.05	23663.69	-2.410107	0.0329
D(ED(-1))	-0.088933	0.326343	0.272516	0.7899
D(EX(-1))	-0.235292	0.282997	-0.831431	0.422
ECM (-1)	-0.037398	0.06886	-0.543106	0.597
C	2973365	408068.7	7.286432	0
R-squared	0.552178	Mean dependent var		2224231
Adjusted R-squared	0.365585	S.D. dependent var		1604144
S.E. of regression	1277703	Akaike info criterion		31.22023
Sum squared resid	1960000000	Schwarz criterion		31.51702
Log likelihood	-274.9821	Hannan-Quinn criter.		31.26115
F-statistic	2.959268	Durbin-Watson stat		1.668205
Prob(F-statistic)	0.05737			

Source: Authors Computation from E-Views

As seen from Table 5, the coefficient of the error correction term (ECM) has a negative sign though not statistically significant. The negatively signed ECM indicates that any deviation from the equilibrium values will be stabilized in the long run by the ECM values. Similarly, the Durbin Watson 1.66 which is closer to 2 indicates that the presence of serial or autocorrelation has been eliminated in the long run analysis. The coefficient of best fit or determination R^2 of 0.55 (55%) means that 55% of changes in the dependent variable are explained by changes in the independent variables (total deposit mobilized, total loans and advances, access to ATM, POS, M-Banking). In terms of the individual coefficient of the model, financial inclusion has a negative and statistically significant effect with MSMEs in Nigeria. Hence, we reject the null hypothesis that there is no significant effect between deposit mobilized and performance of MSMEs in Nigeria. Total loans and advances have negative and statistically insignificant influence with MSMEs performance in Nigeria. Hence, we accept the null hypothesis that there is no significant effect between total loan and advances and performance of MSMEs in Nigeria.

Discussion of Findings

Hypothesis one is; there is no significant effect between total deposit mobilized and performance of MSMEs in Nigeria. From Table 5, total deposit mobilized has a negative coefficient of (-0.289965) and statistically significant effect with micro, small and medium enterprises (MSME). Specifically, the negative sign indicates that an increase in total deposit mobilized would result to 29% decrease in micro, small and medium enterprises (MSME). Since the p-value of total deposit mobilized is 0.0062 and is less than 0.05, we rejected the null hypothesis that there was no significant effect between total deposit mobilized and micro, small and medium enterprises (MSME). This means that total deposit mobilized significantly affected micro, small and medium enterprises in the period of the study. Thus, objective one is achieved and hypothesis one is successfully tested.



Hypothesis two is; there is no significant effect between total loan and advances and performance of MSMEs Nigeria. From Table 5, total loan and advances has a negative coefficient of (-0.088933) and statistically insignificant influence with micro, small and medium enterprises (MSME). Precisely, the negative sign indicates that an increase in total loans and advances would result to 9% decrease in micro, small and medium enterprise (MSME). Since the p-value of total loan and advances is 0.7899 and is greater than 0.05, we accepted the null hypothesis that there was no significant effect between total loans and advances and micro, small and medium enterprise. This implies that total loans and advances did not significantly affect micro, small and medium enterprise performance in the period of the study. Thus, objective two is achieved and hypothesis two is successfully tested.

Conclusion and Recommendations

Although there are a significant number of experimental studies on the effect of financial inclusion on the performance of micro, small and medium enterprises in emerging countries in Sub-Saharan Africa, this study investigated the effect of financial inclusion on the performance of micro, small and medium enterprises in Nigeria. Hence, the conclusions drawn from this study's empirical findings indicate that there was a negative functional relationship between financial inclusion and the performance of micro, small and medium enterprises and the effects were significant. Therefore, financial inclusion was discovered to have impacted the performance of MSMEs and the effect of financial inclusion on MSMEs performance was significant.

Also, the results established that there was a negative correlation between total loans and advances and the performance of MSMEs. However, the effect was not significant on MSMEs performance. This validated the productivity gains and reduction in cost theory which postulates that the increased geographic dispersion is a source of productivity gains as it also allows firms to exploit comparative advantages and save on operational costs for the business. The theory demonstrates that the stock of public debt as well as the debt payments influence economic growth and modifies the significances of public expenditure by this means preventing investment in the country. Therefore, total loan and advances negatively affects MSMEs performance, although the negative effect has not reduced the performance of MSMEs. Nevertheless, increased borrowing might result in the insignificant to turn significant and this may possibly lead to government's inability to fund its future debt commitments when they fall due.

Based on the findings of this study the following recommendations are necessary;

1. On the effects of total deposit mobilized on the performance of micro, small and medium enterprises in Nigeria;
 - i. Government at federal and state levels must provide friendly environment through the availability of infrastructural amenities such as motorable roads, regular water supply, continuous power supply and effective and cheap communication network to encourage investments which will bring more financial inclusiveness from rural dwellers.
 - ii. Government should give anti-graft agencies such as EFCC, ICPC freedom without interference to carry out their duties by ensuring that all the channels through which public office holders (politicians, civil servants, captain of industries, etc.,) launder or move money overseas are blocked. Also, both the local and international anti-corruption



law must be implemented without fear or favour to reduce the quantum of laundered money.

- iii. Government at all levels should take concerted steps to improve security of life and property in the country since insecurity is a serious threat to investment and economic development because insecurity will force investors to move their investments and assets out of the country. The issues of boko haram, banditry, terrorists, Indigenous People of Biafra (IPOB), and Oodua Nation agitators should be considered with all seriousness that it requires.
 - iv. Government as well as policymakers should ensure that multinational companies fully disclose publicly their incomes, profits or losses, sales, tax payment, affiliate companies, and staff strengths on a country-by-country basis.
2. On the influence of total loans and advances on the performance of micro, small and medium enterprises in Nigeria;
 - i. There must be a limit on foreign borrowing tendencies of government at all levels and agencies as well as private sector organizations. In addition, foreign borrowing must be limited to only infrastructural development desires of the country. This will guarantee that the proceeds of foreign borrowing will be channeled towards activities that have long-term economic uses.
 - ii. Government should ensure that overseas loans are utilized or invested on the exact projects/programme for which the funds were borrowed for in the first instance, to discourage capital flight through funds diversion and money laundering and reduction of the costs of production in the country through infrastructural projects/programme.
 - iii. Government needs to look inwards when there is a need to borrow money. When money is borrowed locally, interest paid on such loans would remain in the economy of the country and this could be plough back into additional productive economic use and provide employments to the teeming youths. Except where this is extremely difficult to do. For instance, when capital merchandises such as military equipment and other supplementary goods would be imported into the country since they are not produced within the country and this involves borrowing from abroad. However, government needs to reduce this type of borrowing to alleviate the undesirable effect of external debt on economic growth.

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