Small and Medium-Scale Businesses' Contribution to the Formalization of the Informal Sector Businesses and its Impact on Inclusive Economic Growth

Isiaka Babatunde Hakeem [1*], Ibrahim Musa [2]
[1] Nigerian National Assembly Complex, Three Arms Zone, Abuja FCT, Nigeria
[2] Department of Economics University of Abuja, Nigeria

* Corresponding Author: **Isiaka Babatunde Hakeem**

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Abstract
This study examines the role of Small and Medium Enterprises (SMEs) in facilitating the formalization of Nigeria's informal sector and its impact on inclusive economic growth. The research specifically assesses how SMEs enhance tax compliance, improve regulatory adherence, and connect informal businesses to formal value chains, while identifying key constraints limiting their effectiveness. The study employed a cross-sectional survey design, administering structured questionnaires to 400 SME owners across multiple sectors, with 396 valid responses obtained for analysis. Data collection focused on SMEs' operational characteristics, engagement with informal businesses, and perceived barriers to formalization. The analytical approach combined descriptive statistics with logistic regression to examine relationships between SME characteristics and formalization outcomes. The findings revealed that SMEs significantly contribute to formalization by providing market linkages (reported by 68% of respondents), improving access to financial services (61%), and enhancing regulatory awareness (57%). However, major constraints according to the respondents include high operational costs (cited by 79% of respondents), inadequate infrastructure (72%), complex regulations (65%), and skills shortages (58%). Regression results show that policy support ($p<0.01$), regulatory simplicity ($p<0.01$), and tax incentives ($p<0.001$) significantly predict successful SME-led formalization. The study recommends streamlining business registration, introducing tax incentives for SME-informal sector linkages, and upgrading industrial cluster infrastructure. These measures would enhance SMEs' formalization role while addressing operational constraints.

Keywords: Small and Medium Enterprises, Formal Sector, Informal Sector and Inclusive Economic Growth

1. Introduction

The informal sector is a significant component of the global economy, particularly in developing countries, with an estimated 61% of the world's workforce operating in the informal economy (ILO, 2021). This sector provides employment opportunities but is often associated with challenges such as low productivity and limited access to financial services (Schneider, 2018). Formalizing the informal sector is crucial for achieving sustainable and inclusive economic growth, aligning with SDGs 8 and 9 (ILO, 2021). In Africa, the informal sector is a significant part of the economy, accounting for around 85% of total employment in sub-Saharan Africa (Adams & Neves, 2020). Although it provides livelihoods, jobs in this sector are often precarious and low-productivity (Adams & Neves, 2020). Formalization could unlock greater productivity and economic growth by fostering innovation and improving working conditions (Benjamin & Mbaye, 2012).
SMEs are key drivers in formalizing Africa's informal sector (El-Yaqub et al, 2023) [9], contributing to formal job creation and economic development (Ayyagari, Demirgüç-Kunt, & Maksimovic, 2011) [6]. Supporting SMEs can promote sustainable growth (Beck, 2017) [7] and facilitate access to financial and regulatory support. However, limited access to credit and bureaucratic hurdles hinder SMEs' potential (Aterido, Hallward-Driemeier, & Pagés, 2011) [5]. In Nigeria, the informal sector accounts for 65% of GDP and employs 80% of the labour force (National Bureau of Statistics, 2020).

SMEs significantly contribute to employment generation and poverty reduction (Agwu & Emeti, 2014). However, financing challenges hinder their growth and ability to formalize the informal sector (Musa, El-Yaqub & Magaji, 2024) [17]. Policy interventions, such as improved access to finance and regulatory reforms, are necessary to support SMEs and bridge the gap between informal and formal sectors (Ogunsanwo et al, 2022; Nwaka, 2015).

SMEs in Nigeria are recognized for their potential to achieve SDGs 8 and 9 (Magaji, Musa, Ahmad & Eke, 2024). Formalizing the informal sector through SMEs can reduce poverty, promote inclusive growth, and foster innovation (Ihua, 2009). Studies show that formalization can improve productivity and create sustainable jobs, aligning with inclusive economic development goals (Okpara & Wynn, 2007). The formalization of Nigeria's informal sector through SMEs offers a pathway for sustainable and inclusive growth (Ismail, Musa & Magaji, 2025). SMEs can catalyze this transition, contributing to SDG targets (Schneider, 2018; Agwu & Emeti, 2014). However, success depends on addressing structural barriers and creating an enabling environment for SMEs (Ismail, Musa & Magaji, 2025).

The informal sector is a significant contributor to GDP and employment in developing countries, including Nigeria, where it accounts for 65% of GDP and employs 80% of the labour force (National Bureau of Statistics, 2020). However, this sector is often marked by low productivity, poor working conditions, and limited access to formal financial services (Adamu & Idris, 2021), raising concerns about its implications for sustainable development. Formalizing informal businesses can improve productivity, tax revenue, and social protections (Schneider, 2018; Benjamin & Mbaye, 2012). However, structural barriers like complex regulations, limited access to credit, and corruption hinder formalization (Aterido, Hallward-Driemeier, & Pagés, 2011) [5]. SMEs in Nigeria face significant challenges in transitioning to formal structures, despite their growth potential (Agwu & Emeti, 2014).

The central issue is the gap between the informal sector's potential and its current contribution to inclusive growth (Ihua, 2009). Despite government interventions, many businesses remain informal due to persistent challenges. Addressing this gap is crucial for Nigeria to achieve its SDGs, particularly SDGs 8 and 9 (Ihua, 2009). This study investigates the role of SMEs in formalizing the informal sector to promote inclusive economic growth in Nigeria.

2. Literature Review

2.1. Conceptual Review

Four basic concepts need to be reviewed in this section; the concept of small and medium-scale enterprises, the concept of the formal sector, the concept of informal sector and the concept of inclusive economic growth.

2.1.1. Small and medium-scale enterprises

Small and Medium Enterprises (SMEs) are crucial to Nigeria's economic development, contributing significantly to employment creation, poverty reduction, and innovation (Magaji, Musa & Abdullahi, 2024). According to the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), SMEs represent about 96% of businesses in Nigeria, contribute approximately 48% to the national GDP, and account for 84% of the country's workforce (SMEDAN, 2021). Operating across various sectors such as manufacturing, agriculture, trade, and services, SMEs play a vital role in economic diversification. They stimulate regional development by creating job opportunities in rural areas, reducing migration to urban centres, and addressing regional disparities. SMEs also contribute to the growth of local supply chains, fostering industrialization and reducing dependence on imports.

However, SMEs in Nigeria face significant challenges that limit their growth potential. Chief among these is limited access to affordable financing, with many entrepreneurs unable to meet stringent lending criteria (World Bank, 2023). Poor infrastructure, including unreliable electricity and inadequate transport systems, further hampers productivity. Additionally, regulatory bottlenecks, high taxation, and inconsistent policies increase the operational costs of running SMEs, discouraging entrepreneurial efforts. Recent initiatives by the Nigerian government and international partners aim to mitigate these challenges. Programs like the National Enterprise Development Programme (NEDEP) and targeted interventions from the Central Bank of Nigeria have improved access to finance. Furthermore, the rise of e-commerce platforms and digital tools has opened new markets for SMEs, enhancing their competitiveness.

2.1.2. Informal Sector

The informal economy describes livelihood or employment-generated business activity that does not form part of the nationally controlled economic engagement. It is the type of economy in which the activities thereof are neither taxed nor monitored or accounted for in the overall Gross Domestic Product of that Nation. This is often regarded as a 'grey economy'. The characteristic stigmatization of the informal economy is its likelihood of unmanageability and provides opportunities for the poor to gain employment placement. According to Lewis (1955), the informal economy describes the employment type which falls outside the modern industrial sector. This sector provides no job security, social security and its participation seems to sprout out of the desire to avoid taxation and regulation, thus hidden from the state unreported. Informal sector could further be described as a defiant economic system because of its non-compliant behaviour with the set rules of the institution of authority. The non-compliance of the informal economy is obtainable in working conditions, work hours, minimum wage policy of the state social security and in most cases, disability benefits etc. Common examples of informal economy in Nigeria include the following business activities; hairdressing, tailoring, transportation, food vending and catering services, motor mechanics, and sole trading. The informal economy is largely typical of a bunch of skills acquired outside the formal education type. It is thus a business engagement that possesses the characteristics of easy entry and exit. This means that any participant who wishes to join the sector is free at any given time to do so or opt-out. It requires a small amount of money to set up by its nature and scope of engagement. Meier & Rauch (2005) noted that it portends an unstable employer-employee relationship. The informal sector represents economic activities by individual operators and economic units having no formal contractual arrangements. The informal sector does not include illicit/illegal business operations. According to the 17th International Conference of Labour Statistics (ICLS) (OECD, 2019). These economic activities operate outside accepted norms of society in that they are not regulated or registered with the government, and are hence non-taxable. Furthermore, the OECD (2019) posits that employees in the informal sector typically operate at the lowest level of organisation and on a small/tiny scale. Labour relations, when existent, are based on personal and social relationships instead of contractual arrangements with legal protection.

International Conference of Labour Statisticians (ICLS), (2003) identified informal businesses as small and family-run or run by a single entrepreneur. It includes own-account workers employed in their informal sector enterprises. Employers employed in their own informal sector enterprises. Contributing family workers irrespective of whether they work in the formal or informal sectors of enterprises. Others include: members of informal producers' co-operatives employees holding informal jobs whether employed by formal sector enterprises or informal sector enterprises. Tokman (2001) noted that there is often no clear distinction between formal and informal sectors of labour as large factories and state-run enterprises have informal labour forces working beside their formal counterparts. However, as the world economy changed from the state-led domination of the 1970s to market-led economic forces in the 1990s and now to an increasingly integrated and globalised world economic growth, the share of the informal economy is on the increase. International Labour Organization (2000) statistics indicate that the share of the informal economy employment in the non-agricultural workforce ranges from 55% in Latin America to 45 - 85% in different parts of Asia to nearly 80% in Africa. Specifically, 47 per cent in the Middle East and North Africa; 51 per cent in Latin America, 71 per cent in Asia, and 72 per cent in sub-Saharan Africa. In Africa, informal work accounted for almost 80 per cent of non-agricultural employment, over 60 per cent of urban employment and over 90 per cent of new jobs over the past decade or so (Chen, 2002).

2.1.3. Inclusive economic growth

Inclusive economic growth refers to economic progress that generates opportunities for all individuals while ensuring equitable access to these opportunities and their benefits, particularly for marginalized and disadvantaged groups. Unlike traditional growth models that prioritize GDP expansion without accounting for distributional equity, inclusive growth emphasizes reducing poverty, inequality, and social exclusion, ensuring that economic benefits are widely shared across society (World Bank, 2021).

This concept integrates key pillars such as social inclusion, sustainable development, and equitable economic opportunity, creating an economy that benefits all members of society, regardless of gender, ethnicity, socioeconomic background, or geographic location. The United Nations highlights that inclusive growth aligns with the Sustainable Development Goals (SDGs), particularly SDG 8, which seeks sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all (United Nations, 2023).

The OECD underscores those inclusive policies in Scandinavian countries, such as progressive taxation and universal social welfare programs, have effectively reduced inequality while maintaining high growth rates. Similarly, India's Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) employs rural households, reducing poverty and increasing economic inclusion (OECD, 2022; UNDP, 2023).

2.2. Theoretical Framework

2.2.1. Modernization Theory

Over the twentieth century, modernization theory was the dominant explanation for large informal economies. In this theory, the informal economy is part of the pre-modern economic system and its presence in economies will reduce as the modern formal economy becomes established (Geertz 1963; Gilbert 1998; Lewis 1959; Packard 2007). As Ray Bromley (2007: xv) explains, the informal economy from this perspective is "unimportant and destined to disappear" with economic development and the modernization of governance. Sometimes referred to as “residue” or “dual economy” theory, the informal economy is portrayed as a leftover from an earlier economic system which is disappearing with economic development and modernization. This dualistic representation of the economy as composed of discrete formal and informal economies is associated with scholars such as Julius Boeke (1942) about his studies on South-East Asia, and the economist Arthur Lewis (1954). The depiction of the formal and informal economies as dualistic opposites differed from the then-dominant neoclassical economic models, although Lewis was in that tradition. At the core of the dualist view was the view that less developed countries had two different sectors. One was capitalist, modern, progressive, dynamic and depicted as capital-intensive. The other, the "subsistence" or "peasant" sector (or in later terminology the "marginal" sector) was pre-capitalist, reliant on family labour, unsophisticated in its production and operations, used low technology and possessed poor productivity.

2.3. Empirical Review

Lawal, Usman and Mohammed (2023) look at how the informal sector helped Katsina state's three senatorial zones reduce unemployment. The research employed primary data that was gathered via structured questionnaires distributed to 450 informal business owners across Katsina, Daura, and Malumfashi zones. Descriptive statistics and percentage analysis revealed that 78% of respondents depended solely on informal sector activities for income generation, with petty trading (42%) and artisanal crafts (31%) being the most prevalent. The study found a strong positive correlation ($r=0.68$) between informal sector participation and employment creation, particularly among youth (ages 18-35), who constituted 63% of respondents. However, the research also identified key challenges including lack of access to financing (reported by 85% of respondents) and multiple taxation (reported by 72%), which constrain the sector's potential. The authors recommend targeted interventions such as microcredit schemes and streamlined registration processes to enhance the informal sector's contribution to employment.

Oladipo, Nwokocha, & Nkamnebe (2023) examined the relationship between small and medium enterprises (SMEs) and economic growth in Nigeria over the period 1999 to 2020. The study employed the Autoregressive Distributed Lag (ARDL) model to investigate both the short-run and long-run effects of SME activity on real GDP. The findings revealed that two key variables number of registered SMEs and commercial banks' credit to SMEs positively and significantly influence economic growth in the long run. This suggests that when adequately supported with financing and regulatory backing, SMEs can act as powerful drivers of macroeconomic expansion. However, in the short run, employment generation by SMEs was found to exert a negative effect on economic growth. This was attributed to the predominance of low-skilled, informal, or underpaid employment that does not immediately translate into economic productivity or value addition. The authors note that structural limitations, such as infrastructure deficits, weak institutional support, and limited access to high-impact markets, continue to undermine SMEs' contributions to short-term growth. As a result, the study recommends the creation of a more enabling environment, encompassing financial inclusion, stable macroeconomic policies, and SME-oriented infrastructure. These interventions are critical for transforming Nigeria's SME sector into a robust engine for inclusive economic development.

Pulka & Gawuna (2023) provided an in-depth examination of the role of small and medium enterprises (SMEs) in promoting economic development in Nigeria. Using a combination of literature review and empirical data, the study explored the impact of SMEs on employment generation, contribution to gross domestic product (GDP), and inclusive economic growth. The findings highlight that SMEs are a crucial component of Nigeria's economic architecture, providing employment to a significant portion of the population, particularly in rural and semi-urban areas. Despite their importance, SMEs in Nigeria continue to face numerous challenges including insufficient funding, lack of access to credit, inadequate infrastructure, and inconsistent government policies. The authors also observed that most SMEs operate informally, which limits their access to institutional support, thereby reducing their potential for expansion and innovation. The authors emphasized the urgent need for targeted research, data collection, and policy reforms that reflect the evolving nature of the Nigerian business environment. They advocate for strategic public-private partnerships, improved financial inclusion, and the formalization of informal enterprises. These steps, according to the study, will enhance SME performance, boost productivity, and create more inclusive economic opportunities across diverse socio-economic groups in Nigeria.

Ibitomi et al. (2024) examined the impact of SME Financing on Growth in Nigeria from 1999-2021. The study employed Vector Error Correction Model (VECM) to analyze quarterly data from CBN and NBS. Results showed that a 1% increase in SME credit led to 0.35% GDP growth in the long run, while a 1% rise in lending rates reduced GDP by 0.24%. The research highlights that despite SMEs contributing 48% of the national GDP, they received only 4.2% of total commercial bank credit during the study period. The findings reveal significant regional disparities, with the South-West zone accessing 52% of SME loans compared to 11% for the North-East. The study attributes these imbalances to factors including collateral requirements (affecting 89% of loan applications) and high transaction costs. Policy recommendations include establishing regional SME development funds and implementing credit guarantee schemes to improve access to finance, particularly for SMEs in underserved regions.

Chioma, Kenechukwu, & Ogochukwu (2024) conducted an empirical investigation into the role of small and medium enterprise (SME) financing in promoting sustainable economic development in Nigeria. Utilizing time series data and regression analysis, the study revealed a strong positive relationship between access to finance and the ability of SMEs to drive long-term economic sustainability. The researchers argue that SMEs are the backbone of the Nigerian economy, given their ability to generate employment, support innovation, and promote inclusive growth. However, access to financing remains a critical bottleneck affecting their performance and scalability. The study found that improved financial access—through microfinance institutions, commercial banks, and development finance institutions—correlates with higher output, better productivity, and enhanced sustainability outcomes across sectors. The authors also highlight the need to address systemic issues such as high interest rates, lack of credit history, and collateral constraints that limit SME access to funding. Policy recommendations include expanding SME credit guarantee schemes, offering low-interest loans, improving financial literacy among entrepreneurs, and incentivizing banks to lend to the SME sector. The authors conclude that targeted financial inclusion strategies can significantly empower SMEs, making them key players in Nigeria's sustainable development agenda.

Oyewale & Alabi (2024) conducted a quantitative study to examine the impact of financial inclusion on the performance of small and medium enterprises (SMEs) in Osun State, Nigeria. The researchers surveyed 450 SMEs and analysed the data using multiple regression analysis. The study focused on four core dimensions of financial inclusion: proximity to financial services, availability of payment infrastructure, ability to store value, and access to financial information storage. The findings revealed that all four dimensions significantly contribute to SME performance. Proximity to financial institutions, for example, was found to reduce transaction costs and facilitate quicker access to capital. Similarly, robust payment infrastructure and digital platforms allowed businesses to conduct transactions more efficiently and reach wider markets. The ability to save and access financial information further enhanced planning and risk management among SMEs. The study emphasized that improved financial inclusion not only supports the financial health of SMEs but also fosters economic empowerment and local development. The study recommends that policymakers and financial service providers focus on expanding access points, digitizing financial services, and creating SME-targeted products to enhance financial inclusion. Doing so will improve SME sustainability and contribute to broader economic growth and job creation in Nigeria.

Abdulkareem (2023) explored the relationship between financial inclusion and poverty reduction among small and medium enterprise (SME) operators in Lagos State, Nigeria. The study adopted a cross-sectional design and surveyed 400 SME operators across diverse industries. The analysis revealed that access to financial services, particularly through microfinance institutions, plays a significant role in lifting SME operators out of poverty. Key financial inclusion elements such as access to credit, savings products, and mobile banking were identified as enablers of business expansion, income growth, and household welfare. The study also found that SME operators who were financially included were better equipped to manage risks, invest in productivity-enhancing tools, and increase employment opportunities within their communities. Despite these benefits, the study highlighted existing barriers such as lack of documentation, limited financial literacy, and the digital divide, which prevent many SME operators from fully utilizing financial services. The study recommends expanding the reach of microfinance institutions, developing customized financial products for low-income entrepreneurs, and implementing policies that promote digital financial inclusion. Strengthening financial inclusion, according to the study, is vital for reducing poverty and fostering inclusive economic growth through the empowerment of grassroots entrepreneurs.

Alao, Onivefu, Onivefu-Bello, and Raji (2025) examined the role of small-scale businesses in employment generation and economic growth, with a focus on suburban Lagos, Nigeria. The researchers adopted a qualitative case study approach, selecting several thriving small-scale enterprises in areas such as retail, manufacturing, and services. Through structured interviews and business performance analysis, the study found that small-scale businesses are vital engines for employment creation, particularly among low- and semi-skilled labor. These businesses not only offer job opportunities to local residents but also stimulate informal apprenticeship systems and supply chain development. The research highlighted that despite their contribution to local economies, small-scale businesses often face structural constraints, including limited access to capital, inadequate infrastructure, regulatory bottlenecks, and unstable power supply. These challenges limit their scalability and long-term impact. The authors emphasized the need for tailored policy interventions to boost the sustainability and productivity of small-scale enterprises. The study concluded that empowering small-scale businesses in suburban settings can lead to broad-based economic growth and inclusive development by bridging gaps in formal employment and enhancing community wealth creation.

Oladipo, Nwokocha, & Nkamnebe (2023) investigated the impact of small and medium enterprises (SMEs) on Nigeria's economic growth from 1999 to 2020. The study employed the Autoregressive Distributed Lag (ARDL) model to capture the dynamic interactions between the number of SMEs, commercial bank credit to SMEs, and real GDP growth. The results revealed that both the proliferation of SMEs and access to commercial bank credit positively and significantly influence Nigeria's economic growth, particularly in the long run. However, in the short run, the study observed that employment generation by SMEs has a statistically negative impact on economic growth. This paradox is attributed to the predominance of low-wage and low-productivity jobs within the SME sector, which may not immediately translate into measurable GDP growth. The authors argue that while SMEs are essential for long-term economic development, their short-term impact is limited by structural inefficiencies such as limited innovation, poor infrastructure, and informality. Based on these findings, the study recommends the creation of a more enabling business environment through infrastructural development, SME-specific credit programs, capacity-building initiatives, and incentives for innovation. These measures are essential for SMEs to serve as effective engines for employment, income generation, and inclusive economic growth.

Previous studies have explored various aspects of the informal sector and Small and Medium Enterprises (SMEs) in Nigeria; however, they have largely focused on isolated topics such as SME growth, challenges, and economic contributions, without addressing the comprehensive role SMEs play in the formalization of the informal sector and its broader impact on inclusive economic growth. While several studies have examined the informal sector's characteristics and the barriers to formalization, none have fully investigated the mechanisms through which SMEs contribute to formalizing informal businesses and fostering inclusive economic growth in the context of Nigeria. Similarly, past research has often treated the informal sector and SMEs as separate entities, with little focus on how their interaction can contribute to more inclusive growth and development. This study seeks to fill this gap by specifically investigating the role of SMEs in the formalization process of the informal sector and examining the broader socio-economic impacts of this formalization on inclusive growth in Nigeria.

3. Methodology

3.1. Research Design

Research design is a plan that promotes systematic management of data collection. Design and methodology dictate what is needed to answer your research questions. The study adopts a descriptive study approach. According to Pilot and Hurgler (1995), a descriptive survey aims predominantly at observing, describing and documenting aspects of a situation as it naturally occurs rather than explaining them. The design is appropriate for this study because of its description of the characteristics of problems, it also gives room for data collection and analysis and provides a more accurate picture of events at a point in time.

3.2. Population of the study

The population of this study consists of three key groups in Federal Capital Territory, Abuja, Nigeria: SME owners and managers, who represent various industries such as agriculture, manufacturing, retail, and services, informal sector workers and businesses, including street vendors, artisans, and unregistered micro-businesses, who operate outside formal systems; and government agencies and policymakers, such as SMEDAN and the Ministry of Trade and Investment, who are responsible for regulating and supporting the formalization of informal businesses and creating an enabling environment for economic growth and development. However, the total population of the study according to World Population Review was projected to reach around 4,209,940 by 2025,

3.3. Sample size and sampling technique

The sample size for this study represents the selected sample to whom we administered the questionnaires. The sample size for this research study was determined by using the Taro Yamane formula. This formula is used where the population size for the study is known. Thus, it is stated:

$$n = \frac{N}{1 + N(e)^2}$$

Where: n= sample size

N= Total population (4,209,940)

e= error (0.05)

$$n = \frac{4{,}209{,}940}{1 + \ 4{,}209{,}940\ (0.05)^2}$$

$$n = \frac{4{,}209{,}940}{1 + \ 4{,}209{,}940\ \ (0.0025)}$$

$$n = \frac{4,209,940}{10,525.85} = 399.7$$

$$n = 400$$

Hence, from the above, four hundred represent our sample size for this study.

3.4 Sources and method of data collection
For this study, primary data will be collected through the administration of a structured questionnaire. The questionnaire will be designed to gather the perceptions of SME owners, informal sector workers, and government officials in the Federal Capital Territory, Abuja. It will be based on a Likert scale format to measure the respondents' agreement or disagreement with various statements related to the study's objectives. The responses will range from Strongly Agree to Strongly Disagree and will provide ordinal-level data. This approach will help uncover the relationship between SMEs, informal sector formalization, inclusive economic growth, and the effectiveness of government policies. The data collected from these responses will be suitable for precise statistical analysis.

3.5 Reliability and validity of data
A research project is usually undertaken to uncover information and answer questions. It is therefore important that the instruments used in the research project are of the form that ensures the reliability and validity of the study. Reliability is the degree to which a measure gives 'consistent' or 'reproducible' values when applied in different situations (Leedy & Ormrod, 2005; Salkind, 2009). Salkind (2009) opined that some strategies can be adapted to increase reliability. This includes the standardization of conditions under which the test is taken. It is critical that the sample size be representative and we took standard tests to ensure this. The study will use some of the information collected from the respondents to confirm the reliability of some of the information given by the other respondents.

3.6 Method of data analysis
The study will employ descriptive statistics and regression analysis to analyze the data. Descriptive statistics, including frequencies, means, and percentages, will summarize responses, providing insights into key trends and patterns related to SME contributions, challenges, and the formalization process. Regression analysis will evaluate the relationships between variables, such as the impact of SMEs' activities and access to finance on informal sector formalization and inclusive growth. Multiple regression models will identify significant predictors, such as government policies or access to resources, influencing formalization outcomes.

4.0 Presentation of data and discussion of result
4.1 Data Presentation
This chapter presents the empirical analysis and interpretation of the role of SMEs in the formalization of the informal sector and its impact on inclusive growth in Nigeria. The first part of this section is the analysis of biographic data from respondents. The second part is the analysis of the respondent's views on the role of SMEs in the formalization of the informal sector and its impact on inclusive growth in Nigeria.

4.2 Data Analysis
4.2.1 Response rate

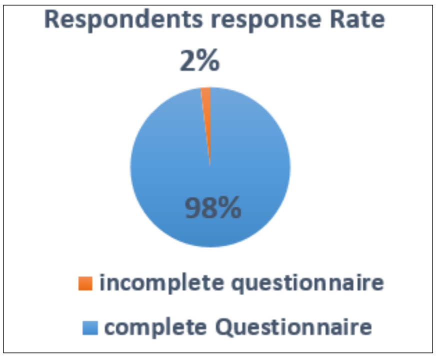

Fig 1: Response Rate

The results of the questionnaire administered for the study are displayed in Figure and Table 4.1. A total of 400 questionnaires were administered to 400 respondents who are who are SME owners based on the sample size of the study. Three hundred ninety-six questionnaires were completed and returned, which corresponds to a 98% response rate. According to Brooks (2008), a response rate of 60% or higher is considered sufficient for academic research. Based on this criterion, a 98% response rate can be considered adequate for the current study.

Table 1: Distribution of administered questionnaire response rate

Number Distributed	Number returned	Percentage returned
400	396	98%

Source: Author's Computation

4.2.2 Demographic Profile Analysis

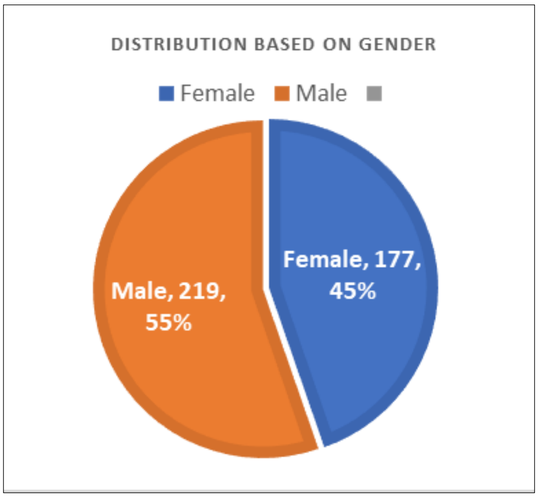

Fig 2: Distribution based on Gender

Table 2: Distribution of Respondents Based on Gender

		Frequency	Percent
Valid	Female	177	44.7
	Male	219	55.3
	Total	396	100.0

Source: computed by the author using SPSS 20.0

Figure and Table 4.2 present the distribution of respondents based on their gender. The respondents were categorized into two groups: male and female. The analysis reveals that out of the total respondents, 219 individuals, constituting 55.3%, were identified as male, while 177 respondents, constituting 44.7%, were identified as female. This analysis reveals that the majority of the respondents in the study were males.

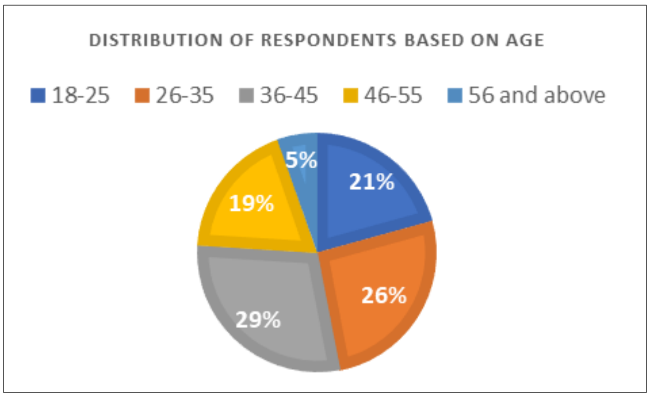

Fig 3: Distribution of Respondents Based on Age

Table 3: Distribution of Respondents Based on Age

		Frequency	Percent
Valid	18-25	82	20.7
	26-35	104	26.3
	36-45	115	29.0
	46-55	74	18.7
	56 and above	21	5.3
	Total	396	100.0

Source: computed by the author using SPSS 20.0

Figure and Table 4.3 present the distribution of respondents based on their age. The respondents were categorized into five age groups: 18-25, 26-35, 36-45, 46-55, and 56 and above. The analysis reveals that out of the total respondents, 115 individuals, constituting 29.0%, were within the 36-45 age group, making it the largest category. This is followed by the 26-35 age group, which had 104 respondents, constituting 26.3%. The 18-25 age group comprised 82 respondents, representing 20.7% of the total sample. Meanwhile, 74 respondents, constituting 18.7%, fell within the 46-55 age group. Lastly, the 56 and above age group had the fewest respondents, with 21 individuals, accounting for 5.3%. This data reveals that the majority of the respondents in the study were within the 36-45 age category.

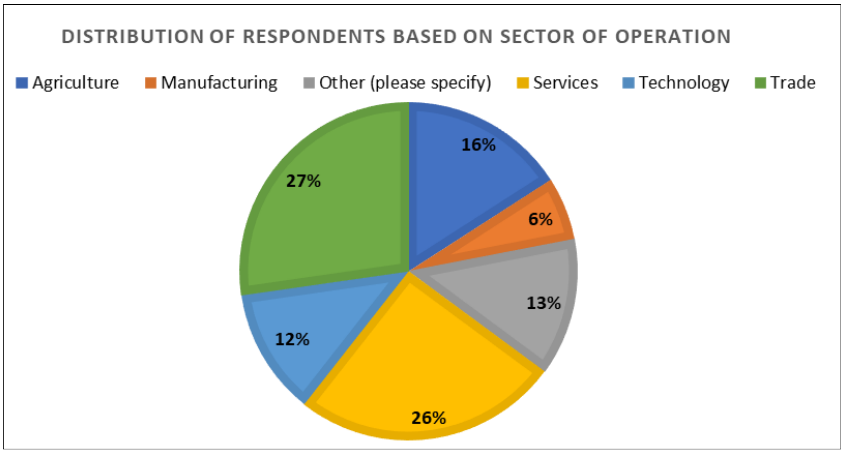

Fig 4: Distribution of Respondents Based on Sector of Operation

Table 4: Distribution of Respondents Based on Sector of Operation (For SMEs)

		Frequency	Per cent
Valid	Agriculture	63	15.9
	Manufacturing	24	6.1
	Other (please specify)	52	13.1
	Services	101	25.5
	Technology	48	12.1
	Trade	108	27.3
	Total	396	100.0

Source: computed by the author using SPSS 20.0

Figure and Table 4.4 present the distribution of respondents based on their sector of operation for SMEs. The respondents were categorized into six sectors: Agriculture, Manufacturing, Services, Technology, Trade, and Other (please specify). The analysis reveals that out of the total respondents, 108 individuals, constituting 27.3%, operated in the Trade sector, making it the most represented category. This is followed by the Services sector, which had 101 respondents, accounting for 25.5% of the total sample. The Agriculture sector comprised 63 respondents, representing 15.9%, while 52 respondents, constituting 13.1%, fell under the Other category. Additionally, the Technology sector had 48 respondents, making up 12.1%, while the Manufacturing sector had the fewest respondents, with 24 individuals, representing 6.1%. This data reveals that the majority of the respondents in the study operated within the Trade sector.

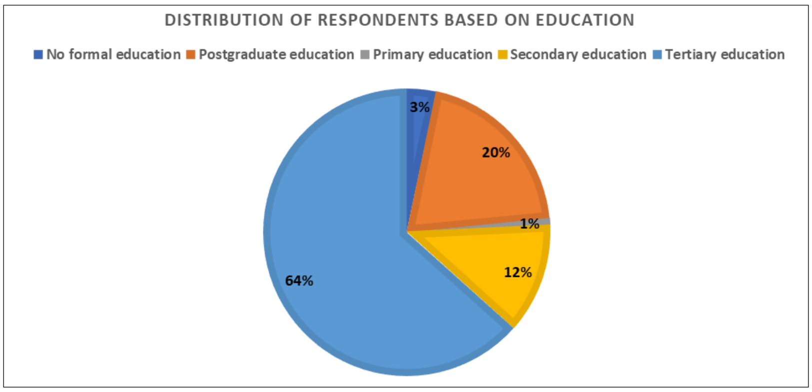

Fig 5: Distribution of Respondents Based on Education

Table 5: Distribution of Respondents Based on Education

		Frequency	Percent
Valid	No formal education	13	3.3
	Postgraduate education	80	20.2
	Primary education	3	.8
	Secondary education	49	12.4
	Tertiary education	251	63.4
	Total	396	100.0

***Source*:** computed by the author using SPSS 20.0

Figure and Table 5 present the distribution of respondents based on their level of education. The respondents were categorized into five groups: No formal education, Primary education, Secondary education, Tertiary education, and Postgraduate education. The analysis reveals that out of the total respondents, 251 individuals, constituting 63.4%, had attained tertiary education, making it the most represented category. This is followed by postgraduate education, with 80 respondents, accounting for 20.2% of the total sample. Secondary education was reported by 49 respondents, representing 12.4%, while 13 respondents, constituting 3.3%, had no formal education. The smallest category was primary education, with only 3 respondents, making up 0.8%. This data reveals that the majority of the respondents in the study had attained tertiary education.

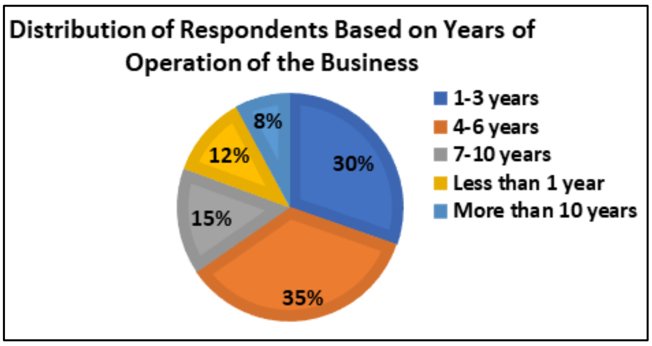

Fig 6: Distribution of Respondents Based on Years of Operation of the Business

Table 6: Distribution of Respondents Based on Years of Operation of the Business

		Frequency	Percent
Valid	1-3 years	120	30.3
	4-6 years	139	35.1
	7-10 years	60	15.2
	Less than 1 year	46	11.6
	More than 10 years	31	7.8
	Total	396	100.0

***Source*:** computed by the author using SPSS 20.0

Figure and Table 6 present the distribution of respondents based on the years of operation of their businesses. The respondents were categorized into five groups: Less than 1 year, 1-3 years, 4-6 years, 7-10 years, and more than 10 years. The analysis reveals that out of the total respondents, 139 individuals, constituting 35.1%, had businesses operating for 4-6 years, making it the most represented category. This is followed by businesses that had been in operation for 1-3 years, with 120 respondents, accounting for 30.3% of the total sample. Businesses that had operated for 7-10 years comprised 60 respondents, representing 15.2%, while 46 respondents, constituting 11.6%, had businesses operating for less than 1 year. The smallest category was businesses that had been in operation for more than 10 years, with 31 respondents, making up 7.8%. This data reveals that the majority of the respondents in the study had businesses that had been operating for 4-6 years**.**

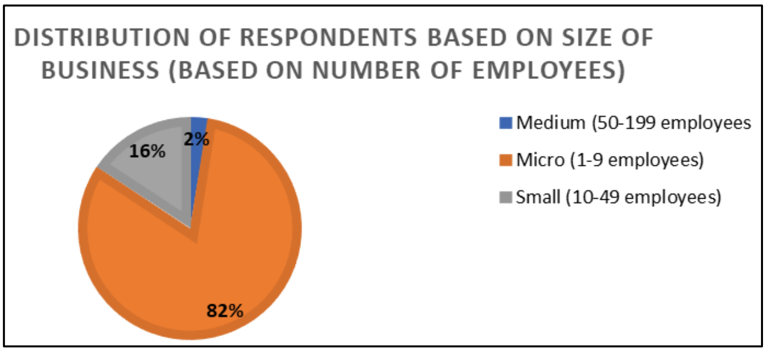

Fig 7: Distribution of Respondents Based on Size of Business (Based on number of employees)

Table 7: Distribution of Respondents Based on Size of Business (Based on number of employees)

		Frequency	Per cent
Valid	Medium (50-199 employees	10	2.5
	Micro (1-9 employees)	324	81.8
	Small (10-49 employees)	62	15.7
	Total	396	100.0

Source: computed by the author using SPSS 20.0

Figure and Table 7 present the distribution of respondents based on the size of their businesses, categorized by the number of employees. The respondents were grouped into three categories: Micro (1-9 employees), Small (10-49 employees), and Medium (50-199 employees). The analysis reveals that out of the total respondents, 324 individuals, constituting 81.8%, operated micro-sized businesses, making it the most represented category. This is followed by small-sized businesses, with 62 respondents, accounting for 15.7% of the total sample. The least represented category was medium-sized businesses, with only 10 respondents, making up 2.5%. This data reveals that the majority of the respondents in the study operated micro-sized businesses.

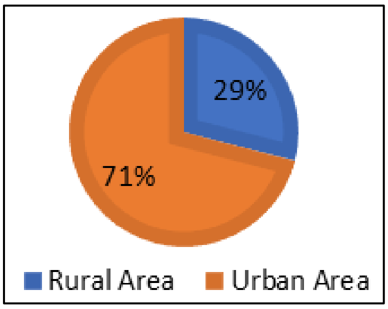

Fig 8: Distribution of Respondents Based on Location of the Business

Table 8: Distribution of Respondents Based on Location of the Business

		Frequency	Percent
Valid	Rural Area	115	29.0
	Urban Area	281	71.0
	Total	396	100.0

Source: computed by the author using SPSS 20.0

Figure and Table 8 present the distribution of respondents based on the location of their businesses. The respondents were categorized into two groups: Rural Area and Urban Area. The analysis reveals that out of the total respondents, 281 individuals, constituting 71.0%, operated their businesses in urban areas, making it the most represented category. In contrast, 115 respondents, accounting for 29.0% of the total sample, had businesses located in rural areas. This data reveals that the majority of the respondents in the study operated their businesses in urban areas.

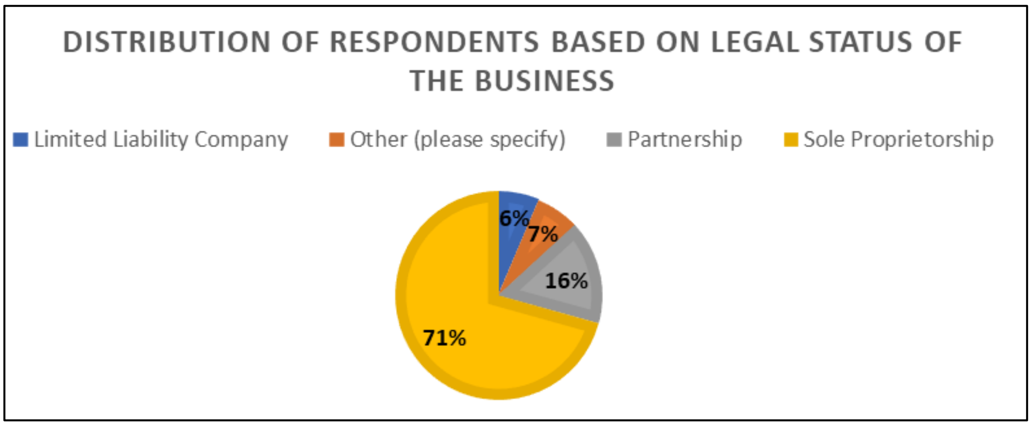

Fig 9: Distribution of Respondents Based on Legal Status of the Business

Table 9: Distribution of Respondents Based on Legal Status of the Business

		Frequency	Percent
Valid	Limited Liability Company	25	6.3
	Other (please specify)	27	6.8
	Partnership	64	16.2
	Sole Proprietorship	280	70.7
	Total	396	100.0

***Source*:** computed by the author using SPSS 20.0

Figure and Table 9 present the respondents' distribution based on their businesses' legal status. The respondents were categorized into four groups: Sole Proprietorship, Partnership, Limited Liability Company, and Other. The analysis reveals that out of the total respondents, 280 individuals, constituting 70.7%, operated as sole proprietorships, making it the most represented category. This is followed by partnerships, with 64 respondents, accounting for 16.2% of the total sample. Additionally, 27 respondents, representing 6.8%, fell under the "Other" category, while the least represented category was limited liability companies, with 25 respondents, making up 6.3%. This data reveals that the majority of the respondents in the study operated as sole proprietors.

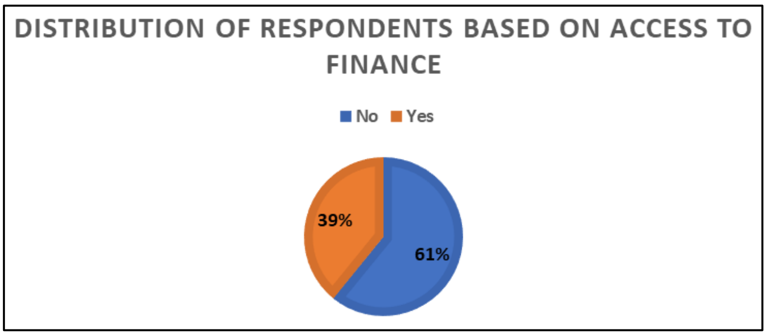

Fig 10: Distribution of Respondents Based on Access to Finance

Table 10: Distribution of Respondents Based on Access to Finance

		Frequency	Percent
Valid	No	241	60.9
	Yes	155	39.1
	Total	396	100.0

***Source*:** computed by the author using SPSS 20.0

Figure and Table 10 present the distribution of respondents based on their access to finance. The respondents were categorized into two groups: Yes and No. The analysis reveals that out of the total respondents, 241 individuals, constituting 60.9%, reported having no access to finance, making it the most represented category. In contrast, 155 respondents, accounting for 39.1% of the total sample, indicated that they had access to finance. This data reveals that the majority of the respondents in the study lacked access to finance.

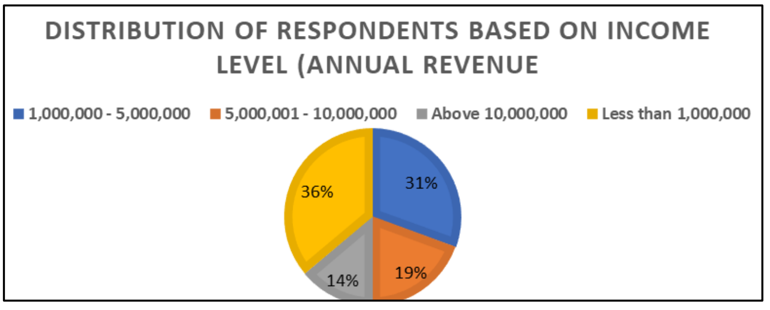

Fig 11: Distribution of Respondents Based on Income Level (Annual Revenue)

Table 11: Distribution of Respondents Based on Income Level (Annual Revenue)

		Frequency	Percent
Valid	1,000,000 - 5,000,000	121	30.6
	5,000,001 - 10,000,000	77	19.4
	Above 10,000,000	55	13.9
	Less than 1,000,000	143	36.1
	Total	396	100.0

***Source*:** computed by the author using SPSS 20.0

Figure and Table 11 present the distribution of respondents based on their income level, measured by annual revenue. The respondents were categorized into four groups: Less than 1,000,000; 1,000,000 - 5,000,000; 5,000,001 - 10,000,000; and Above 10,000,000. The analysis reveals that out of the total respondents, 143 individuals, constituting 36.1%, reported an annual revenue of less than 1,000,000, making it the most represented category. This is followed by the 1,000,000 - 5,000,000 income range, with 121 respondents, accounting for 30.6% of the total sample. Additionally, 77 respondents, representing 19.4%, reported an annual revenue between 5,000,001 and 10,000,000, while the least represented category was those earning above 10,000,000 annually, with 55 respondents, making up 13.9%. This data reveals that the majority of the respondents in the study had an annual revenue of less than 1,000,000.

4.2.1. Analysis of the Responses Based on the Objective of the Study

Objective i: SMEs contribution to the formalization of the informal sector in Nigeria

Table 12: SMEs play a vital role in promoting the registration of informal businesses

		Frequency	Percent
Valid	Agree	162	40.9
	Disagree	19	4.8
	Neutral	15	3.8
	Strongly agree	165	41.7
	Strongly disagree	35	8.8
	Total	396	100.0

Source**:** computed by the author using SPSS 20.0

Table 12 presents the distribution of respondents' views on the role of SMEs in promoting the registration of informal businesses. The respondents were categorized into five groups: Strongly agree, Agree, Neutral, Disagree, and Strongly disagree. The analysis reveals that out of the total respondents, 165 individuals, constituting 41.7%, strongly agreed that SMEs play a vital role in promoting the registration of informal businesses, making it the most represented category. This is closely followed by those who agreed, with 162 respondents, accounting for 40.9% of the total sample. Additionally, 35 respondents, representing 8.8%, strongly disagreed with the statement, while 19 respondents, constituting 4.8%, disagreed. The least represented category was those who were neutral, with 15 respondents, making up 3.8%. This data reveals that the majority of the respondents in the study believe that SMEs play a vital role in promoting the registration of informal businesses.

Table 13: SMEs help informal businesses access training and capacity-building programs

		Frequency	Percent
Valid	Agree	164	41.4
	Disagree	30	7.6
	Neutral	23	5.8
	Strongly agree	163	41.2
	Strongly disagree	16	4.0
	Total	396	100.0

Source**:** computed by the author using SPSS 20.0

Table 13 illustrates respondents' opinions on whether SMEs help informal businesses access training and capacity-building programs. The respondents were divided into five categories: Strongly agree, Agree, Neutral, Disagree, and Strongly disagree. The results show that a significant portion of respondents, 164 individuals (41.4%), agreed that SMEs help informal businesses in this area. A close number, 163 respondents (41.2%), strongly agreed. On the other hand, 30 respondents (7.6%) disagreed with this statement, and 16 respondents (4.0%) strongly disagreed. The neutral category was represented by 23 individuals, accounting for 5.8%. The analysis revealed that the majority of the respondents recognize the role of SMEs in facilitating access to training and capacity-building programs for informal businesses.

Table 14: Collaboration between SMEs and informal businesses improves access to formal markets

		Frequency	Percent
Valid	Agree	158	39.9
	Disagree	26	6.6
	Neutral	25	6.3
	Strongly agree	169	42.7
	Strongly disagree	18	4.5
	Total	396	100.0

Source**:** computed by the author using SPSS 20.0

Table 14 highlights respondents' views on whether collaboration between SMEs and informal businesses improves access to formal markets. The respondents were grouped into five categories: Strongly agree, Agree, Neutral, Disagree, and Strongly disagree. The results show that 169 respondents (42.7%) strongly agreed with the statement, followed closely by 158 respondents (39.9%) who agreed. In contrast, 26 respondents (6.6%) disagreed, and 18 respondents (4.5%) strongly disagreed. The neutral category was represented by 25 respondents, making up 6.3%. This data suggests that most respondents believe that collaboration between SMEs and informal businesses significantly enhances access to formal markets.

Table 15: SMEs contribute to enhancing compliance with tax and regulatory requirements for informal businesses

		Frequency	Percent
Valid	Agree	158	39.9
	Disagree	31	7.8
	Neutral	36	9.1
	Strongly agree	157	39.6
	Strongly disagree	14	3.5
	Total	396	100.0

***Source*:** computed by the author using SPSS 20.0

Table 15 presents respondents' perspectives on whether SMEs contribute to enhancing compliance with tax and regulatory requirements for informal businesses. The respondents were divided into five categories: Strongly agree, Agree, Neutral, Disagree, and Strongly disagree. The findings indicate that 157 respondents (39.6%) strongly agreed, while 158 respondents (39.9%) agreed with the statement. On the other hand, 31 respondents (7.8%) disagreed, and 14 respondents (3.5%) strongly disagreed. The neutral group comprised 36 respondents, accounting for 9.1%. These results suggest a strong consensus among the respondents that SMEs play a significant role in improving compliance with tax and regulatory requirements for informal businesses.

Table 16: SMEs act as intermediaries linking informal businesses to formal value chains

		Frequency	Per cent
Valid	Agree	166	41.9
	Disagree	31	7.8
	Neutral	31	7.8
	Strongly Agree	158	39.9
	Strongly Disagree	10	2.5
	Total	396	100.0

***Source*:** computed by the author using SPSS 20.0

Table 16 shows respondents' opinions on whether SMEs act as intermediaries linking informal businesses to formal value chains. The respondents were divided into five categories: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. The results reveal that 166 respondents (41.9%) agreed with the statement, while 158 (39.9%) strongly agreed. On the other hand, 31 respondents (7.8%) disagreed, and an equal number of 31 respondents (7.8%) were neutral. The least represented category was Strongly Disagree, with only 10 respondents (2.5%). These findings indicate that a significant portion of respondents believe SMEs play an important role in linking informal businesses to formal value chains.

Objective Two: The challenges faced by SMEs in Facilitating the Formalization of the Informal Sector

Table 17: High operational costs hinder SMEs from supporting the formalization of informal businesses

		Frequency	Percent
Valid	Agree	164	41.4
	Disagree	26	6.6
	Neutral	25	6.3
	Strongly agree	166	41.9
	Strongly disagree	15	3.8
	Total	396	100.0

***Source*:** computed by the author using SPSS 20.0

Table 17 examines respondents' views on whether high operational costs hinder SMEs from supporting the formalization of informal businesses. The respondents were categorized into five groups: Strongly agree, Agree, Neutral, Disagree, and Strongly disagree. The data shows that 166 respondents (41.9%) strongly agreed with the statement, while 164 respondents (41.4%) agreed. In contrast, 26 respondents (6.6%) disagreed, and 15 respondents (3.8%) strongly disagreed. A smaller group of 25 respondents (6.3%) remained neutral. The results suggest that a substantial number of respondents recognize high operational costs as a significant barrier preventing SMEs from effectively supporting the formalization of informal businesses.

Table 18: Limited access to infrastructure affects the ability of SMEs to engage with informal businesses

		Frequency	Percent
Valid	Agree	140	35.4
	Disagree	24	6.1
	Neutral	25	6.3
	Strongly agree	195	49.2
	Strongly disagree	12	3.0
	Total	396	100.0

***Source*:** computed by the author using SPSS 20.0

Table 18 explores respondents' opinions on whether limited access to infrastructure affects the ability of SMEs to engage with informal businesses. The respondents were grouped into five categories: Strongly agree, Agree, Neutral, Disagree, and Strongly disagree. The results show that the majority of respondents, 195 individuals (49.2%), strongly agreed with the statement, while 140 respondents (35.4%) agreed. A smaller proportion, 25 respondents (6.3%), remained neutral, and 24 respondents (6.1%) disagreed. The least represented category was Strongly disagreed, with only 12 respondents (3.0%). This suggests that most respondents believe limited access to infrastructure is a significant factor hindering SMEs' engagement with informal businesses.

Table 19: Complex government regulations discourage SMEs from aiding informal sector formalization

		Frequency	Percent
Valid	Agree	162	40.9
	Disagree	24	6.1
	Neutral	24	6.1
	Strongly agree	174	43.9
	Strongly disagree	12	3.0
	Total	396	100.0

***Source*:** computed by the author using SPSS 20.0

Table 19 highlights respondents' views on whether complex government regulations discourage SMEs from supporting the formalization of the informal sector. The respondents were divided into five categories: Strongly agree, Agree, Neutral, Disagree, and Strongly disagree. The findings reveal that 174 respondents (43.9%) strongly agreed with the statement, while 162 respondents (40.9%) agreed. A smaller group of 24 respondents (6.1%) disagreed, and an equal number of 24 respondents (6.1%) remained neutral. The least represented group was those who strongly disagreed, with only 12 respondents (3.0%). These results suggest that a significant portion of respondents believe that complex government regulations serve as a barrier, discouraging SMEs from helping to formalize the informal sector.

Table 20: SMEs face difficulties in accessing skilled labour to support formalization efforts

		Frequency	Percent
Valid	Agree	165	41.7
	Disagree	26	6.6
	Neutral	32	8.1
	Strongly agree	163	41.2
	Strongly disagree	10	2.5
	Total	396	100.0

***Source*:** computed by the author using SPSS 20.0

Table 20 presents respondents' perspectives on whether SMEs face difficulties in accessing skilled labour to support their formalization efforts. The respondents were categorized into five groups: Strongly agree, Agree, Neutral, Disagree, and Strongly disagree. The results indicate that 165 respondents (41.7%) agreed with the statement, while 163 respondents (41.2%) strongly agreed. A smaller portion, 32 respondents (8.1%), were neutral, and 26 respondents (6.6%) disagreed. Only 10 respondents (2.5%) strongly disagreed. These findings suggest that a significant number of respondents perceive access to skilled labour as a major challenge for SMEs in their efforts to support the formalization of informal businesses.

Table 21: Lack of government incentives reduces SMEs' willingness to help informal businesses formalize

		Frequency	Percent
Valid	Agree	154	38.9
	Disagree	28	7.1
	Neutral	20	5.1
	Strongly agree	180	45.5
	Strongly disagree	14	3.5
	Total	396	100.0

Source: computed by the author using SPSS 20.0

Table 21 presents respondents' views on whether the lack of government incentives reduces SMEs' willingness to help informal businesses formalize. The respondents were categorized into five groups: Strongly agree, Agree, Neutral, Disagree, and Strongly disagree. The analysis reveals that 180 respondents (45.5%) strongly agreed with the statement, making it the most represented category, followed by 154 respondents (38.9%) who agreed. On the other hand, 28 respondents (7.1%) disagreed, while 14 respondents (3.5%) strongly disagreed. The least represented category was Neutral, with 20 respondents (5.1%). These results indicate that most respondents believe that the absence of government incentives discourages SMEs from actively supporting the formalization of informal businesses.

Objective III: The impact of informal sector formalization on inclusive economic growth in Nigeria

Table 22: Logistic Regression on the Effectiveness of Government Policies and Regulatory Frameworks in Supporting SMEs in the Formalization Process

SME Formalization	Coef	Odd Ratio	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
Government Policy Support	0.056	1.058	0.012	4.67	0.000	1.035	1.081
Regulatory Framework Simplicity	0.041	1.042	0.009	4.56	0.001	1.024	1.060
Tax Incentives	0.065	1.067	0.014	4.64	0.000	1.040	1.094
Monitoring & Enforcement	0.038	1.039	0.011	3.45	0.002	1.017	1.061
Government-SME Coordination	0.049	1.050	0.010	4.90	0.000	1.030	1.070
Post-Estimation Tests							
Mean dependent var		4.215		SD dependent var		1.785	
Pseudo r-squared		0.073		Number of obs		396	
Chi-square		82.654		Prob > chi2		0.000	
Akaike crit. (AIC)		1241.618		Bayesian crit. (BIC)		1276.593	
**** p<.01, ** p<.05, * p<.1*							

The logistic regression model evaluates the effectiveness of government policies and regulatory frameworks in supporting SMEs in the formalization process. The dependent variable, SME Formalization, represents the likelihood of SMEs successfully formalizing their operations. The results show that government policy support (OR =

1.058, $p < 0.01$) and simplified regulatory frameworks (OR = 1.042, $p < 0.01$) significantly enhance SME formalization. Similarly, tax incentives (OR = 1.067, $p < 0.01$) and monitoring and enforcement mechanisms (OR = 1.039, $p < 0.01$) also contribute positively to the process. Furthermore, effective government-SME coordination (OR = 1.050, $p < 0.01$) increases the likelihood of formalization.

The pseudo-R-squared value of 0.073 suggests that the model explains a fair proportion of the variance in SME formalization. The highly significant chi-square statistic ($p < 0.001$) confirms the model's strong explanatory power. These findings highlight the importance of well-structured policies, reduced bureaucratic barriers, and better government-SME collaboration in driving formalization efforts.

Objective iv: To evaluate the effectiveness of government policies and regulatory frameworks in supporting SMEs in the formalization process

Table 23: Regression Results on the Impact of Informal Sector Formalization on Inclusive Economic Growth in Nigeria

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	Correlations	Collinearity Statistics
	B	Std. Error	Beta		Lower Bound	Upper Bound	Zero-order
Constant	0.210	0.275		0.764	-0.330	0.750	
Informal Sector Formalization	0.875	0.078	0.790	<0.001	0.721	1.029	0.790

The regression analysis examines the impact of informal sector formalization on inclusive economic growth in Nigeria. The results indicate a strong positive relationship, with an unstandardized coefficient of 0.875, suggesting that a one-unit increase in formalization efforts leads to an 87.5% rise in inclusive economic growth. The statistical significance (p-value <0.001) confirms the reliability of this relationship at a 99% confidence level. The confidence interval, ranging from 0.721 to 1.029, further underscores the consistency of the estimate.

The high standardized beta coefficient of 0.790 highlights the substantial contribution of informal sector formalization to economic growth. Additionally, the zero-order correlation of 0.790 signifies a strong direct association between the two variables. Collinearity diagnostics indicate no significant multicollinearity issues.

These findings suggest that policies aimed at formalizing informal businesses, such as easing business registration processes and offering incentives for compliance, could play a crucial role in fostering inclusive economic growth. By integrating informal enterprises into the formal economy, Nigeria can enhance tax revenue, increase job security, and promote long-term economic stability.

Objective v: The role of access to finance in enhancing the capacity of SMEs to formalize the informal sector

Table 24: Regression Results on the Role of Access to Finance in Enhancing the Capacity of SMEs to Formalize the Informal Sector
Dependent Variable: SME Capacity to Formalize the Informal Sector

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	Correlations	Collinearity Statistics
	B	Std. Error	Beta		Lower Bound	Upper Bound	Zero-order
Constant	0.180	0.290		0.621	-0.390	0.750	
Access to Finance	0.920	0.082	0.805	<0.001	0.759	1.081	0.805

The regression analysis assesses the role of access to finance in enhancing the capacity of SMEs to formalize the informal sector. The dependent variable in this model is the SME's Capacity to Formalize the Informal Sector, while the independent variable is Access to Finance. The results demonstrate a significant positive relationship, with an unstandardized coefficient of 0.920, indicating that an increase in access to finance by one unit corresponds to a 92.0% improvement in SMEs' ability to facilitate formalization. The p-value of <0.001 confirms statistical significance at the 99% confidence level, reinforcing the reliability of this relationship.

The standardized beta coefficient of 0.805 highlights the strong influence of access to finance on SME capacity for formalization. Additionally, the zero-order correlation of 0.805 suggests a strong direct association between these variables. The confidence interval, ranging from 0.759 to 1.081, affirms the consistency of the estimated effect, while collinearity diagnostics indicate no significant multicollinearity issues. These findings emphasize the importance of improving financial accessibility for SMEs. Policies aimed at facilitating credit availability, reducing borrowing costs, and providing tailored financial support can significantly contribute to formalizing informal enterprises. Strengthening financial inclusion strategies could play a vital role in fostering economic growth and sustainability in Nigeria

4.3. Discussion and Interpretation of Results

The regression analyses provide critical insights into the impact of government policies, regulatory frameworks, and financial access on the formalization of the informal sector and inclusive economic growth in Nigeria. The findings suggest that well-structured government policies, financial accessibility, and regulatory support significantly enhance SMEs' ability to drive formalization efforts. Findings from the descriptive analysis indicate that SMEs play a crucial role in promoting the registration of informal businesses. A significant majority (over 80% of respondents) agreed or strongly agreed that SMEs help facilitate business registration, access to training and capacity-building programs, and improve access to formal markets. Additionally, SMEs contribute to enhancing tax and regulatory compliance and act as intermediaries linking informal businesses to formal value chains.

More specifically, 41.7% of respondents strongly agreed that

SMEs play a vital role in promoting business registration, while 40.9% agreed. Similarly, 41.4% agreed, and 41.2% strongly agreed that SMEs help informal businesses access training and capacity-building programs. Regarding access to formal markets, 42.7% strongly agreed, and 39.9% agreed that collaboration between SMEs and informal businesses improves access. Moreover, 39.6% strongly agreed, and 39.9% agreed that SMEs contribute to enhancing compliance with tax and regulatory requirements. Additionally, SMEs were recognized as intermediaries linking informal businesses to formal value chains, with 41.9% agreeing and 39.9% strongly agreeing. However, the study also identifies key challenges hindering SMEs' ability to support formalization. High operational costs, limited infrastructure, complex government regulations, and difficulties in accessing skilled labor were highlighted as major barriers. A significant portion of respondents affirmed that these factors discourage SMEs from effectively engaging with and supporting the transition of informal businesses into the formal sector. Notably, 41.9% strongly agreed and 41.4% agreed that high operational costs hinder SMEs from supporting formalization efforts. Similarly, 49.2% strongly agreed and 35.4% agreed that limited access to infrastructure affects SME engagement with informal businesses. Additionally, 43.9% strongly agreed and 40.9% agreed that complex government regulations discourage SMEs from aiding formalization. Access to skilled labour was also highlighted as a significant challenge, with 41.7% agreeing and 41.2% strongly agreeing that SMEs face difficulties in this regard.

The logistic regression results indicate that government policy support ($OR = 1.058$, $p < 0.01$) and regulatory framework simplicity ($OR = 1.042$, $p < 0.01$) play a pivotal role in enabling SMEs to assist in formalizing informal businesses. The strong significance of tax incentives ($OR = 1.067$, $p < 0.01$) highlights the necessity of financial motivation for SMEs to engage in compliance processes. Effective monitoring and enforcement mechanisms ($OR = 1.039$, $p < 0.01$) further enhance the credibility of formalization efforts, ensuring adherence to regulations. Moreover, the regression analysis on economic growth reveals that informal sector formalization positively influences inclusive economic growth ($B = 0.875$, $p < 0.001$), emphasizing the need to integrate informal businesses into the formal economy. This integration fosters job security, increases tax revenue, and enhances long-term economic stability.

The role of access to finance in SMEs' capacity to facilitate formalization was also confirmed to be highly significant ($B = 0.920$, $p < 0.001$). SMEs with greater financial access demonstrate a stronger ability to support informal businesses in compliance processes. The standardized beta coefficient (0.805) highlights the direct impact of finance on SMEs' role in formalization. Additionally, high operational costs and inadequate infrastructure were identified as major constraints limiting SMEs' engagement in formalization. Due to financial constraints, many SMEs struggle to allocate resources toward compliance, reinforcing the importance of targeted government support mechanisms.

4.4. Policy Implications of Findings

The findings from this study have significant policy implications for the formalization of the informal sector and the role of SMEs in fostering inclusive economic growth in Nigeria. First, the strong positive relationship between informal sector formalization and economic growth suggests that policymakers should prioritize formalization as a strategic approach to economic development. Policies that streamline business registration processes and provide incentives for compliance can facilitate a smoother transition from informality to formality. Second, the impact of access to finance on SME capacity for formalization highlights the need for targeted financial policies. Government and financial institutions should focus on expanding credit facilities, reducing collateral requirements, and offering financial literacy programs tailored to SMEs. These measures would enhance SMEs' ability to integrate informal businesses into the formal economy.

Third, the effectiveness of government policies and regulatory frameworks in SME formalization indicates the importance of a well-coordinated institutional environment. Policies that enhance tax incentives, simplify compliance procedures, and strengthen enforcement mechanisms would provide a more conducive landscape for formalization efforts. Finally, the findings underscore the need for continuous engagement between SMEs and government agencies to foster collaboration. A more inclusive and participatory policy design process, where SMEs play an active role in shaping regulations, would ensure that policies address real challenges businesses face. Strengthening these policy areas would contribute to sustainable economic growth and long-term economic resilience in Nigeria.

5. Summary, Conclusion and Recommendation

5.1. Summary of Major Findings

This study analyzes the role of SMEs in the formalization of the informal sector and its impact on inclusive economic growth in Nigeria, using Abuja as a case study. The research examines how SMEs facilitate formalization through access to finance, regulatory compliance, and market integration while assessing the effectiveness of government policies in supporting this transition. The study employs a combination of descriptive and inferential statistical techniques to analyze the collected data. The descriptive analysis utilizes frequency and percentage distributions to summarize respondents' views on SME contributions, financial constraints, regulatory barriers, and government interventions. Inferential statistical methods, including regression and logistic regression models, are applied to determine the relationships between key variables such as informal sector formalization, SME capacity, access to finance, and inclusive economic growth.

The main findings from the analysis indicate that informal sector formalization significantly contributes to inclusive economic growth in Nigeria. Regression results show a strong positive relationship, highlighting the potential of formalization to enhance economic stability and job creation. Furthermore, access to finance plays a critical role in enabling SMEs to support formalization efforts, with findings indicating that increased financial access significantly boosts SMEs' capacity to integrate informal businesses into the formal economy. Findings from the descriptive analysis indicate that SMEs play a crucial role in promoting the registration of informal businesses. A significant majority (over 80% of respondents) agreed or strongly agreed that SMEs help facilitate business registration, access to training and capacity-building programs, and improve access to formal markets. Additionally, SMEs contribute to enhancing tax and regulatory compliance and act as intermediaries linking informal businesses to formal value chains.

However, the study also identifies key challenges hindering SMEs' ability to support formalization. High operational costs, limited infrastructure, complex government regulations, and difficulties in accessing skilled labor were highlighted as major barriers. A significant portion of respondents affirmed that these factors discourage SMEs from effectively engaging with and supporting the transition of informal businesses into the formal sector.

5.2. Conclusion

This study aimed to analyze the role of SMEs in the formalization of the informal sector and its impact on inclusive economic growth in Nigeria, using Abuja as a case study. The research focused on assessing how SMEs contribute to formalization through access to finance, regulatory compliance, and market integration while also identifying key challenges hindering their effectiveness in this role. The findings reveal that SMEs play a crucial role in supporting the transition of informal businesses into the formal economy. Through facilitating business registration, providing training and capacity-building programs, and enhancing compliance with tax and regulatory requirements, SMEs significantly contribute to formalization efforts. Moreover, collaboration between SMEs and informal businesses was found to improve access to formal markets and value chains, further driving economic integration. Despite these contributions, the study also highlights significant challenges faced by SMEs in their efforts to facilitate formalization. High operational costs, limited access to infrastructure, complex government regulations, and difficulties in accessing skilled labour were identified as key constraints. These challenges limit the capacity of SMEs to effectively support the formalization process, thereby hindering broader economic growth. The results further suggest that formalization positively influences inclusive economic growth, as evidenced by regression analyses showing a strong correlation between SME-driven formalization efforts and economic stability, job creation, and enhanced productivity. Access to finance was also found to be a critical determinant of SME success in driving formalization, reinforcing the need for improved financial inclusion policies.

5.3. Recommendations

Based on the findings from this study, the following are recommended:

1. To enhance the role of SMEs in formalizing the informal sector and promoting inclusive economic growth, the government should simplify business registration processes by reducing bureaucratic bottlenecks and leveraging digital platforms to facilitate seamless business registration.
2. Financial institutions should introduce tailored loan products, government-backed credit guarantees, and alternative financing mechanisms such as microfinance and crowdfunding to improve SMEs' capacity to support business formalization.
3. SMEs and informal businesses should benefit from training initiatives focused on business management, financial literacy, and tax compliance to improve their ability to operate effectively within the formal economy.
4. Strengthening collaboration between SMEs and informal businesses through mentorship programs, trade associations, and public-private partnerships will enhance access to formal markets and foster business growth.
5. Investments in reliable electricity, transportation, and digital connectivity should be prioritized to reduce operational costs for SMEs, while regulatory frameworks should be simplified, and tax incentives introduced to encourage formalization.

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