

Macro-environmental forces and sme operational performance: Empirical evidence from Lagos State, Nigeria using PESTLE framework

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Abstract

Small and medium enterprises (SMEs) constitute the backbone of Nigeria's economy, yet their operational survival is persistently threatened by volatile macro-environmental forces beyond their direct control. This study examined the influence of macro-environmental factors, operationalised through the PESTLE framework, on the operational performance of SMEs in Lagos State, Nigeria. Adopting a cross-sectional survey research design anchored in Freeman Edward's Stakeholder and Competitive Value Theory, quantitative data were collected from 313 SME operators drawn from a population of 11,663 registered SMEs using Taro Yamane's sampling formula. A structured, validated questionnaire with a five-point Likert scale served as the primary data collection instrument. Multiple regression and Pearson Product Moment Correlation analyses were employed for hypothesis testing at the 0.05 significance level. Findings reveal that while political, economic, and social factors demonstrate small positive directional associations with SME operational performance, the overall explanatory model does not achieve statistical significance. Conversely, technological, legal, and environmental factors show no statistically significant effect on SME operational performance. The adjusted R-squared value of 0.47 suggests that the PESTLE factors collectively account for a moderate share of variance in SME performance, implying the presence of additional explanatory variables. The study recommends that SME operators adopt flexible, diversified business strategies and embrace digitalisation, while advocating for structured government collaboration with SME stakeholders to reduce macroeconomic risk exposure and strengthen the enabling business environment in Nigeria.

Keywords: PESTLE Analysis, Macro-Environmental Factors, SME Operational Performance, Lagos State, Business Environment, Nigeria, Small And Medium Enterprises, Macroeconomic Risk

JEL Classification: L25, L26, O17

1. Introduction

Nigeria is renowned for its abundant human and natural resources which traverse diverse geographical landscapes of the country. Despite this, the country is faced with the challenges to become prominent economically in Africa and in the world. According to the 2020 World Bank Ease of Doing Business Report, Nigeria was positioned fourth in terms of the ease in doing business. In 2021, India, the Netherlands, and the US were Nigeria's leading trading partners, collectively accounting for 25.9% of overall trade (comprising imports and exports) (Obisi & Gbadamosi, 2024). Businesses operating within the country are influenced by a range of factors that influence their activities. The Nigerian business environment lacks certainty, in fact, it is unpredictable for business experts and investors. Its dynamic nature, is as a result of forces and conditions within (micro) and mostly outside organizations (macro) that affect business operations either positively or negatively (Okunbajo *et al.*, 2022). This study is concerned with the macro factors / forces that tend to stimulate the functionality or operations of Small Medium Enterprises (SMEs) in Lagos, Nigeria. These factors include: Political (P), Economic (E), Social (S), Technological (T), Legal (L) and Environmental (E); forming an acronym - PESTLE. A PESTLE analysis stands as a valuable instrument for recognizing the diverse external factors that exert influence on Nigerian businesses (Momin, 2023). Variables of each of the factors considered include: government policies and infrastructure, raw materials and limited access to business financing, market and consumption pattern, technologies and manpower, legal regulations and security. These factors in business environment can affect the performance of SMEs in the terms of margin of profit, cost of product, business security, product quality, investment and business stability. This research sought to assess how macroeconomic factors influence the operational performance of small and medium-sized enterprises (SMEs) in Nigeria, with a specific focus on:

- i. Examining the influence of political factors (unstable import / export policy on SMEs profit or regional instability on supply chains and physical safety of business assets) in Lagos State, Nigeria
- ii. Investigating how economic factors (inflation / access to credit) influence purchasing power and SMEs cost of production in Lagos State, Nigeria
- iii. Exploring the influence of social factors (brain - drain, preference for foreign goods) on SMEs security in Lagos State, Nigeria
- iv. Analyzing the influence of Technological factors (infrastructure deficit, digital marketing) on product quality of SME in Lagos State, Nigeria
- v. Examining the influence of legal factors (multiple taxation, labour laws) on profit margin of SME in Lagos State, Nigeria
- vi. Finding out the influence of environmental factors (power supply, climate change) on cost of doing business / supply cost in Lagos State, Nigeria

2. Literature Review

2.1 Small, Medium- Scale Enterprises Performance

Enterprises are broadly classified into micro, small, medium, and large entities. Small and medium-scale enterprises (SMEs) fall within the larger size category, necessitating a certain level of formal structure. They are notably influenced by factors in their business environment and constitute a significant portion of businesses within the "formal sector" of an economy (Etuk, Etuk & Michael, 2014). Nwakoby *et al.* (2017), asserts that small-scale businesses serve as the foundational elements for fostering sustainable economic growth. These businesses hold a crucial role in propelling industrial advancement, rendering them indispensable for Nigeria's economy. However, research by Ayunku & Eweke (2020) suggests that numerous small businesses falter due to their struggle to adapt to the dynamic trends in the broader macroeconomic environment. The pervasive presence of SMEs across virtually all sectors of the Nigerian economy and their significance in national progress are well-documented (Fan, 2003, Ariyo, 2006, Essien, 2014). Their contributions encompass broadening the industrial base through diversification and expansion, leveraging local resources and expertise, generating increased government revenue, creating wealth, alleviating poverty, and stemming rural-urban migration (Ugwu *et al.*, 2023). According to the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) report in 2021, a considerable proportion of small and medium enterprises in Nigeria cease operations prior to reaching their fifth anniversary. Specific factors within Nigeria's business environment have been pinpointed as detrimental to SME performance and contributors to the elevated failure rates (Essien, 2014). These factors encompass pressures stemming from legal regulations, limited access to external financing, the impact of government policies and infrastructure, substantial tax and regulatory burdens, deficient power supply, and restricted access to credit facilities (Essien, 2014). These issues manifest at various levels in the Nigerian business landscape. Consequently, enterprises incur significant operational expenses to manage tax and regulatory demands, as well as to secure alternative energy sources. Those unable to bear the cost of such alternatives rely on the inconsistent government-provided infrastructure, leading to the eventual collapse of numerous SMEs in Nigeria. These challenges not only discourage entrepreneurship but also lead to the absence of a resilient SME sector, thereby creating an industrial gap.

2.1.1 Macro- Environmental Factors

The business environment encompasses both internal and external dimensions, and in this study, the external aspect is the primary focus. The (external) macro- environmental factors encompasses an extensive array of forces, factors, conditions, institutions, and policies, that are beyond the direct control of a business entity, yet wield significant influence over its operations. As earlier noted, these factors includes but not limited to: legal regulations, limited access to external financing, government policies and inadequate infrastructure, substantial tax and regulatory

burdens, deficient power supply, and restricted access to credit facilities. Okunbanjo *et al.*, (2022) note that in the modern 21st century, businesses globally must adopt effective strategies not only to survive but also to flourish within the external macro environment. They further explain that these macro - environmental factors exert a profound impact on business operations, and although business operators may not possess direct control or manipulation over them, they can regulate their responses to the influences from them. In economies undergoing development such as Nigeria, small businesses assume a pivotal role, and procuring funds for operational activities remains a formidable challenge. Olufemi & Laseinde (2019) highlight the critical role played by macroeconomic environmental factors in shaping the macroeconomic policies of an economy. Ogunbiyi & Abina (2018) and Essien & Udoffia (2020) contend that sustaining stability within the macroeconomic environment is essential for ensuring the enduring viability of an economy. This environment also cultivates national savings, investments, and international trade (Ogunbiyi & Abina, 2018). The diverse components of the business environment can exert a significant impact on a firm's performance, behaviour, and structure. In reality, it's nearly impossible for any business to function effectively without these components. This underscores why it is imperative for every business to establish operational frameworks that enable them to adapt to market changes (Alabi *et al.*, 2019).

2.1.2 Influence of Political Factors on SMEs Performance in Nigeria

Several political factors affect businesses and hampers Nigeria's economic growth. Regrettably, Nigeria has a history of political instability, where military coups and civil unrests have been prevalent. This backdrop of instability has resulted in an uncertain business environment, leaving enterprises in a state of doubt regarding the future. The prevailing uncertainty has dissuaded foreign investors from engaging in the country (Momin, 2023). The issue of corruption has further exacerbated matters, leading to a lack of transparency and accountability in governmental dealings. This lack of transparency has created challenges for businesses attempting to navigate the regulatory landscape. In the context of a developing economy like Nigeria, the operational landscape for small businesses is marked by frequent shifts in macroeconomic policies introduced by the government. These fluctuations in policies significantly impact the broader macroeconomic environment (Ptak-Chmielewska & Matuszyk, 2019). The government's taxation policies have been criticized for their inconsistency and unpredictability, posing difficulties for businesses attempting to strategically plan their operations (Momin, 2023). More often than not, these policies are established as precautionary measures. However, a unique trend is observable in Nigeria and Africa as a whole, where policies are formulated in response to specific incidents or to promote particular action plans. As governments are typically led by politicians rather than business experts, this approach to policy formulation in Nigeria might be attributed to such dynamics. A pivotal instance within this scenario is the abrupt land border closures that occurred on August 20, 2019, encompassing the borders with Benin, Togo, Niger, Cameroon, and Chad. This action was taken under the pretext of combating smuggling and enhancing security. The government asserted

that restricting imports and exports through these land borders would stimulate domestic food production and enhance productivity across sectors. However, the unintended consequences of this border closure have disproportionately impacted Nigerian SMEs, particularly consumers, small-scale retail operators, importers, and exporters. The domestic production output falls short of matching the projected consumption levels, which has subsequently contributed to an escalation in inflation rates. The abruptness of the closure caught many off guard, significantly affecting the operations of numerous SMEs in the country. Olubiyi (2023) suggests that government interventions and policy formulations should be strategically designed to facilitate income redistribution, foster innovation, stimulate research and development, reduce inequality, encourage private investment, and infuse capital into the economy. Such measures could work to mitigate risk for these SMEs and render them more viable. By adopting this approach, SMEs would be better positioned to attract local and foreign investors, consequently enhancing their global competitiveness and achieving broader market exposure.

2.1.3 Influence of Economic Factors on SMEs Performance in Nigeria

In Nigeria, one of the most crucial economic factors with direct implications for businesses is inflation. Inflation arises when the overall price level of goods and services within an economy rises. This persistent issue has plagued Nigeria for an extended period, often yielding inflation rates surpassing double digits. Elevated inflation can wield substantial influence over businesses, escalating production costs, reducing consumer purchasing ability, and discouraging investment. Enterprises conducting operations in Nigeria must remain cognizant of inflation rates and adapt their strategies to accommodate these circumstances (Momin, 2023). As a result, Nigeria fell short of achieving the initial Millennium Development Goals (MDGs) target - a 50% reduction in poverty by 2015. To achieve the optimal outcome, inclusive growth that benefits a majority of the population is imperative. A notable avenue for attaining this objective involves enhancing the sustainability and performance of SMEs and local entrepreneurs. In countries like Nigeria, SMEs constitute the bedrock of economic activity and are pivotal in sparking national economic growth (Alabi et al., 2019). While the world has managed to overcome the far-reaching consequences of the COVID-19 pandemic that nearly brought the global economy to its knees, its aftermath still reverberates through Nigeria's small businesses. Many enterprises have yet to recover from the cascading shocks induced by the pandemic (Harry & Essien, 2025). Despite interventions by the Central Bank of Nigeria, approximately 2 million small businesses have succumbed to the pressures of inflation and high interest rates, which further eroded their cash flow and financial stability. The substantial surge in energy costs, amplifying their operational expenditures, has compounded the challenges faced by small businesses in the country. For numerous entities, the pandemic's impact proved insurmountable (Momin, 2023). In 2020, as part of measures to mitigate the pandemic's economic impact, the CBN introduced the N50 billion Targeted Credit Facility, a stimulus package designed to aid households and Micro, Small, and Medium Enterprises affected by the pandemic (Dan-Awoh, 2023).

The introduction of the cashless and naira redesign policies in 2022 by the Central Bank profoundly impacted small businesses in Nigeria. These policies induced a cash shortage, hampering patronage as customers faced difficulties accessing cash, consequently disrupting SMEs' cash flow (Udoh and Essien, 2025). Moreover, these policies resulted in increased prices by sellers to compensate for the additional expenses incurred via e-payment platforms. In contrast, the cashless economy offers SMEs the advantage of immediate transactions, enhancing cash flow efficiency by reducing reliance on check clearance and 30-day invoicing delays (Nwankwo *et al.*, 2022). This approach improves the cash flow aspect of SMEs and streamlines payments with the efficiency of electronic transactions (Nwani *et al.*, 2020). Another economic factor influencing Nigerian businesses is foreign exchange rates. Nigeria's heavy reliance on imports necessitates the acquisition of foreign currency for procuring goods and services from other nations. The value of the national currency, the naira, fluctuates against other currencies like the U.S. Dollar and Euro. These fluctuations can significantly impact businesses in Nigeria, affecting costs associated with raw materials, transportation, and other essential inputs. Consequently, businesses must actively monitor and manage their exposure to foreign exchange fluctuations to mitigate risk (Momin, 2023).

2.1.4 Influence of Social Factors on SMEs Performance in Nigeria

Social factors play a pivotal role in shaping the business landscape within Nigeria. Among these factors, one that distinctly influences businesses pertains to the country's population structure. Nigeria boasts a substantial youthful populace, with more than 60% of its inhabitants below the age of 25. This demographic configuration presents a notable prospect for enterprises to tap into the expansive consumer market the nation offers. However, the concurrent high population growth rate also poses a formidable challenge for businesses striving to satisfy the escalating demand for goods and services. Additionally, Nigeria's populace demonstrates remarkable diversity, encompassing over 250 ethnic groups and multiple religions. This diversity poses a complexity for businesses, necessitating tailored product and service approaches to cater to distinct group requirements. Furthermore, Nigeria operates as a patriarchal society where gender roles are deeply woven into the cultural fabric. This aspect influences Nigerian businesses, particularly those engaged in retail and consumer goods sectors. Certain products may be perceived as more suited for one gender as opposed to the other, thus complicating endeavors for businesses aiming to equally market their offerings to both genders. The country also grapples with significant income inequality, with a small percentage of the population controlling most of the wealth. This social divergence can influence business dynamics, potentially shaping the pricing of products and services to cater to the affluent minority rather than the broader populace (Momin, 2023).

2.1.5 Influence of Technological Factors on SMEs Performance in Nigeria

The integration of technology into business operations is now a global norm, and Nigeria is no exception to this trend. Over recent years, Nigeria has been marked by the proliferation of startups

and technology-centric enterprises. Nonetheless, businesses functioning in Nigeria encounter an array of technological aspects capable of influencing their operations. As highlighted by Momin (2023), the availability of proficient technology experts emerges as a technological factor with direct implications for Nigerian businesses. Notably, despite the expansion of the technology sector within Nigeria, there remains a shortage of skilled professionals in this field. The regulatory landscape constitutes another technological factor influencing businesses in Nigeria. The nation administers regulations governing technology application, including laws pertaining to data protection and privacy. These regulations introduce challenges for technology-dependent businesses, compelling adherence while simultaneously ensuring operational efficiency and efficacy. This shortage of skilled personnel can pose hurdles for businesses reliant on adept workers to function optimally. Consequently, businesses must devise strategies aimed at enticing and retaining proficient technology professionals to retain their competitive edge in the market. Technology holds paramount importance for business undertakings, particularly in the context of small and medium enterprises (SMEs), especially within the 21st century and in a progressively cashless society. The transition to a cashless economy in Nigeria offers diverse advantages to multiple stakeholders by facilitating electronic business activities and interactions (Nwani et al., 2020). For example, a cashless economy enhances convenience for customers, allowing access to bank accounts and transactions on non-working days. Businesses, in turn, enjoy reduced vulnerability to cash-related crimes and armed robberies, along with the capability to process payments from any location sans the need to visit physical banks (Nwani et al., 2020). Notably, in Nigeria, individuals can now engage in banking activities using smartphones, even without holding formal bank accounts (Ohiani, 2020).

2.1.6 Influence of Legal Factors on SMEs Performance in Nigeria

One of the most significant legal considerations impacting Nigerian businesses is the country's legal system itself. The legal landscape of Nigeria is rooted in both common law and Islamic law. This dual legal system can create confusion for enterprises operating within the nation. The foundation of common law is derived from the English legal system and serves as Nigeria's primary legal source. Conversely, Islamic law applies within specific northern states of the country. This legal duality can complicate business navigation through legal processes, contractual agreements, and dispute resolutions. Consequently, enterprises must grasp the intricacies of this legal framework to ensure their successful operations within Nigeria. The legal framework requires tackling issues of weak regulatory agency enforcement, which fosters inefficiencies and corruption among SMEs rather than bolstering Nigeria's economic growth (Olujobi, 2017). Thus, there is a pressing need to meticulously regulate and restructure the Nigerian legal system, fostering efficiency and cultivating the growth of SME businesses. However, the strength of the legal system considerably influences SMEs' trust in their business associations. The extent to which SMEs can trust their business partners hinges on the legal system's robustness in offering backing and avenues for redress when breaches of contractual trust, such as threats, undue exploitation, and

partner oppression, arise (Ojukwu, 2016). For instance, Ogundele et al. (2013) point out that Nigeria grapples with a considerable amount of internet fraud and criminal activities that affect businesses and individuals alike. While the Nigerian legal system has guided businesses on the significance of engaging in lawful practices, SME operators within Nigeria demonstrate a notably low level of trust in the legal system. This is attributed to various pivotal factors that challenge their confidence in the legal system's reliability for supporting their business relationships. For example, Adeodu et al. (2015) elucidate that the substantial costs borne by these SMEs prevent them from accessing specific business rights in their operational procedures. Such costs encompass expenses associated with pursuing legal remedies, thereby enabling business trust violators to evade retribution, particularly within the SME realm.

2.1.7 Influence of Environmental Factors on SMEs Performance in Nigeria

Climate change represents a prominent environmental factor exerting influence over Nigerian businesses. Additionally, the nation grapples with extreme weather occurrences such as floods, droughts, and heat waves. These extremities of weather conditions instigate diverse impacts on businesses. To illustrate, floods possess the potential to inflict damage on infrastructure and crops, thereby incurring revenue losses for enterprises. Similarly, droughts have the capacity to diminish crop yields and escalate water scarcity, adversely impacting businesses reliant on agriculture and water resources. Pollution also emerges as a notable environmental factor influencing Nigerian businesses. Infamous for its subpar air quality, Nigeria's pollution woes extend to detrimental effects on public health. This pollution burden equally impinges upon businesses in various ways. Notably, companies that discharge pollutants into the air or water bodies might encounter legal repercussions, fines, and harm to their reputation. The phenomenon of deforestation, further amplifies the spectrum of environmental influences on Nigerian businesses. Nigeria's forest cover has been severely depleted due to activities like logging, agricultural expansion, and urban development. Consequently, deforestation ushers in multifaceted effects on businesses. Consider, for instance, enterprises reliant on timber-based products contending with disruptions in their supply chain, culminating in escalated expenses and diminished revenue. Moreover, the impact of desertification reverberates through Nigerian businesses. The northern region of the nation remains particularly susceptible to desertification, catalyzed by climate change, overgrazing, and inadequate land management practices. Desertification's ramifications encompass an array of impacts on businesses. For example, entities reliant on agriculture confront the prospect of dwindled crop yields and augmented costs associated with irrigation and soil rejuvenation measures.

2.1.8 Empirical review

Ptak-Chmielewska & Matuszyk (2019) explored the relationship between macroeconomic factors and the risk of SME bankruptcy in Poland. Their logistic regression analysis demonstrated that macroeconomic indicators, such as GDP, inflation, and unemployment rate, enhanced the

predictive capability for SME bankruptcy. A study conducted by Johnson, Onakoya, and Akeju (2018) investigated the dynamics of economic growth and macroeconomics in Nigeria spanning the period from 1975 to 2015. Their findings indicated that inflation exerts a negative impact on economic growth, while variables like interest rate, exchange rate, and unemployment exhibit positive effects on economic growth. However, this study did not incorporate aspects like small business credit accessibility and GDP. Adenomon & Ojo (2019) delved into the influence of macroeconomic variables on economic growth within the timeframe of 1984 to 2017. Their research employed inflation rate, unemployment rate, and interest rate as macroeconomic variables to predict real gross domestic product per capita. The outcomes revealed a sustained relationship between inflation rate, unemployment rate, interest rate, and real gross domestic product per capita in Nigeria. However, this study did not encompass factors such as liquidity ratio, exchange rate, and credit accessibility for small businesses. Jenkins and Hossain (2016) conducted a study exploring the interplay between macroeconomic conditions and SME lending in emerging economies. Their research, utilizing both time series and panel data analysis, led to the conclusion that macroeconomic conditions exert a positive influence on SME credit availability and gross domestic product. In a similar vein, Halim et al. (2017) undertook an assessment of the impact of macroeconomic variables on SME profitability in Malaysia. Their study employed multiple regression analysis and revealed that exchange rate and lending rate contribute positively to SME profitability, whereas inflation rate exerts a negative effect on SME profitability. In the realm of business environment analysis, Momin (2023) affirmed that both political and economic factors exert a profound influence on the operational landscape for businesses in Nigeria. These factors significantly shape organizational performance, thereby influencing their overall contribution to the nation's economic growth and development.

2.1.9 Stakeholder and Competitive Value Theory

The progenitor of the stakeholder theory, Freeman Edward, laid its foundation. Performance evaluation under these paradigms hinges on an organization's capacity to meet the needs and expectations of external stakeholders—individuals or groups capable of impacting or being influenced by the firm's goal attainment. Such stakeholders encompass competitors, financiers, employees, government bodies, owners, the community, customers, trade unions, and suppliers (Phillips, 2017). This framework is especially pertinent for the SME sector, as it features numerous service providers and stakeholders who often encounter intense scrutiny due to apparent shortfalls in SME performance. Notably, instances of SME failure are notably recurrent in Nigeria, creating the impression that such failure is persistent and that owners/managers are compelled to shut down or relocate due to the influence of external environmental factors. Consequently, the measurement of SME performance, in terms of job creation and service quality, is based on the stakeholder approach to performance assessment. Meanwhile, the measurement of indicators like market growth and sales revenue performance is pursued using the competitive value approach. The stakeholder theory, in reality, underscores the persistence of SME failure in Nigeria, often

compelling owners/managers to close or relocate due to external macro environmental factors. To gauge SME performance, focusing on aspects like sustainability and service quality involves adopting the stakeholder approach to performance measurement. Concurrently, assessing indicators such as market growth and sales revenue performance employs the competitive value approach.

3. Methodology

3.1 Research Design

The study adopted a cross-sectional research design. This involves obtaining quantitative data from a cross-section of the population without imposing personal values and influencing their objective opinions. Quantitative data were gathered from participants using questionnaire designed using a 5-point Likert scale. This scale enabled respondents to select from a broad spectrum of potential responses for each item. Consequently, affirmative responses are associated with higher scores compared to negative or neutral responses which attracted low scores.

3.2 Population and Sample size

The sampled population was 11663 SME's operating in Lagos State. Sample size of 387 was arrived at, using the Taro Yamane sample size determination formula. Of the 387 sets of questionnaire distributed to random business owners in the study area, 313 were filled and returned, yielding a response rate of 80.87 per cent.

3.3 Validity and Reliability of the Instrument

To ensure that the instrument was valid, it was subjected to scrutiny by experts in test and measurement in the department of educational curriculum at Lagos State University LASU. The corrections noted were effected, hence, the instrument was seen to have face and construct validation. Thirty sets of the question were also tested on SMEs operators in Ogun State. A cronbach alpha reliability coefficient of 76.4% was obtained. This indicated a high score, suggesting a high reliability of the instrument.

3.4 Method of Data Analysis

To test the hypotheses, multiple regression model and pearson product moment correlation Coefficient was used to assess the effects and relationships existing between macro-environmental factors on Operational performance of SME's. The tests were carried out in the 95% confidence level, therefore p-values less or equal to 0.05 indicates that there is no sufficient evidence to accept the null hypothesis, hence, the null hypothesis is rejected, otherwise, not rejected. The statistical analysis explored the influence of several independent factors (PESTLE) on the dependent variable, SMEs Performance.



3.5 Ethical Consideration

The participants were duly informed of the good intention of the research and their cooperation were enlisted before questionnaire distribution. Their safety were guaranteed by not asking sensitive questions. Anonymity of the questionnaire also ensured the protection of the identity of the respondents.

4. Results and Discussion

Information on social demographics of the respondents are presented in Table 1.

Table 1. Bio-social Characteristics of the Respondents

Characteristics of the respondents	Frequency(f)	Percentage (%)
Gender:		
Female	150	47.9
Male	163	52.1
Age:		
18-30	76	24.3
31-40	52	16.6
41-50	54	17.3
51-60	67	21.4
Above 60	64	20.4
Educational Qualification:		
SSCE/WAEC	60	19.2
OND/NCE	52	16.6
HND/BSc.	76	24.3
MSc/MBA	64	20.4
Others.....	61	19.5
Business Sector:		
Transport	46	14.7
Hospitality	38	12.1
Food Services	55	17.6
Manufacturing	39	12.5
Wholesale/retail	40	12.8
Agriculture	51	16.3
Professional Services	44	14.1
For how long has your business been in operations:		
0 -10	97	31
11-20	105	33.5
21-30	83	26.5
above 30	28	8.9

Source: Field Survey, 2025



Data in Table 1 shows that the gender distribution was almost balanced, with 47.9% female and 52.1% male. The respondents' age groups were diverse, indicating a varied representation. The largest age group was 51-60, accounting for 21.4% (67 individuals) of the participants, closely followed by the age group above 60, representing 20.4% (64 individuals). Other age groups were relatively evenly distributed, with 18-30 at 24.3% (76 individuals), 31-40 at 16.6% (52 individuals), and 41-50 at 17.3% (54 individuals). Participants had different educational qualifications. The most common qualification was HND/B.Sc., with 24.3% (76 individuals), followed closely by M.Sc./MBA at 20.4% (64 individuals). OND/NCE represented 16.6% (52 individuals), and SSCE/WAEC accounted for 19.2% (60 individuals). The category labeled "Others" had 19.5% (61 individuals). The respondents' businesses operated in various sectors. The Food Services sector had the highest representation at 17.6% (55 businesses), followed by Agriculture at 16.3% (51 businesses). Transport and Professional Services each represented 14.7% (46 businesses) and 14.1% (44 businesses), respectively. Other sectors included Wholesale/Retail at 12.8% (40 businesses), Manufacturing at 12.5% (39 businesses), and Hospitality at 12.1% (38 businesses). Regarding the duration of business operations, the survey covered businesses that had been operating for different periods. The largest segment was businesses that have been operating for 11-20 years, representing 33.5% (105 businesses). The second largest group was businesses operating for 0-10 years, accounting for 31% (97 businesses). The range of 21-30 years had 26.5% (83 businesses), and businesses with operations above 30 years accounted for 8.9% (28 businesses).

Table 2. Responses on Political Factors and SMEs Performance

Political Factors	S	D	U	A	SA
The transparency and accountability of the government is deemed favorable to businesses in Nigeria.	65(20.8%)	51(16.3%)	69(22%)	60(19.2%)	68(21.7%)
The regulatory framework has influenced SME's access to funding and financial resources.	61(19.5%)	62(19.8%)	53(16.9%)	67(21.4%)	70(22.4%)
The government is highly responsive to challenges faced by SMEs in Nigeria.	70(22.4%)	66(21.1%)	59(18.8%)	62(19.8%)	56(17.9%)
The economic reforms has favorably impacted your business profitability	55(17.6%)	56(17.9%)	65(20.8%)	68(21.7%)	69(22%)

Source: Field Survey, 2025

The survey responses on political factors revealed a broadly divided but slightly positive sentiment among SME operators. Regarding government transparency and accountability, respondents were nearly evenly split, with 41.7% expressing disagreement (strongly disagree and disagree combined) and 40.9% expressing agreement, while 22% remained neutral. On the influence of the regulatory framework on SMEs' access to funding, opinions were similarly distributed, as 39.3% disagreed and 43.8% agreed, suggesting a marginal lean toward recognising regulatory constraints on financing. Concerning government responsiveness to SME challenges, a slight majority of 43.5% disagreed, against 37.7% who agreed, indicating a general perception that government engagement with SME concerns remains inadequate. With respect to the favourable impact of economic reforms on business profitability, 35.5% disagreed while 43.7% agreed, reflecting a cautiously optimistic view among respondents regarding reform outcomes. Overall, the responses on political factors suggest a mixed but slightly unfavourable perception of the political environment, with SME operators demonstrating moderate concern over governance quality, regulatory consistency, and policy effectiveness.

Table 3. Responses on Economic Factors and SMEs Performance

Economic Factors	SD	D	U	A	SA
The corruption system in the Nigeria has made it difficult for SME's to navigate through the business environment.	69(22%)	70(22.4%)	56(17.9%)	65(20.8%)	53(16.9%)
The current inflation situation has favorably affected your business cost of operation and pricing strategy.	46(14.7%)	56(17.9%)	65(20.8%)	73(23.3%)	73(23.3%)
Fluctuation in the interest and exchange rates has affected your SME's access to finance and investment decisions.	72(23%)	63(20.1%)	57(18.2%)	48(15.3%)	73(23.3%)
There are numerous challenges related to credit availability and affordability for SMEs in Nigeria.	73(23.3%)	67(21.4%)	56(17.9%)	54(17.3%)	63(20.1%)

Source: Field Survey, 2025



Responses on economic factors painted a picture of considerable financial strain on SME operations. On the question of whether corruption has made business navigation difficult, opinions were closely split, with 44.4% disagreeing and 37.7% agreeing, suggesting that while corruption is perceived as a challenge, its direct impact is contested among respondents. Regarding the influence of inflation on business costs and pricing strategy, 46.6% of respondents agreed that inflation has affected their operations, against 32.6% who disagreed, indicating that rising prices represent a tangible operational concern for the majority. On the effect of interest and exchange rate fluctuations on access to finance, responses were sharply polarised, with 43.1% disagreeing and 38.6% agreeing, reflecting divergent experiences with financial market volatility. Concerning credit availability and affordability challenges, 44.7% disagreed while 37.4% agreed, suggesting that although credit constraints are widely acknowledged in the literature, respondents' direct experiences vary. Collectively, economic factors emerged as a prominent source of operational pressure, particularly through the channels of inflation and currency volatility, though the heterogeneity of responses signals that the magnitude of impact differs across SME types and sectors.

Table 4. Responses on Social Factors and SMEs Performance

Social Factors	SD	D	U	A	SA
The perception of small businesses in Nigeria affects SME’s access to opportunities and sustainability.	54(17.3%)	76(24.3%)	61(19.5%)	48(15.3%)	74(23.6%)
The diversity in Nigeria influences your SMEs marketing strategies and service delivery	61(19.5%)	66(21.1%)	63(20.1%)	48(15.3%)	75(24%)
Changes in social trends and consumer preferences affect your SME’s sales and market demand.	52(16.6%)	60(19.2%)	79(25.2%)	62(19.8%)	60(19.2%)
Social media platforms and online interactions impacts your customer engagement and business growth.	65(20.8%)	76(24.3%)	63(20.1%)	57(18.2%)	52(16.6%)

Source: Field Survey, 2025



The responses on social factors reflected moderate awareness of socio - cultural influences on SME performance, though with considerable uncertainty across items. On the perception of small businesses and its effect on SME access to opportunities and sustainability, 41.6% disagreed while 38.9% agreed, indicating a broadly contested view. Regarding the influence of Nigeria's sociocultural diversity on SMEs' marketing strategies and service delivery, 40.6% disagreed compared to 39.3% who agreed, suggesting that while diversity presents both challenges and opportunities, respondents did not converge on a clear directional effect. On whether changes in social trends and consumer preferences affect SME sales and market demand, responses were the most evenly distributed across all options, with 35.8% disagreeing, 39% agreeing, and a notably high 25.2% remaining neutral, indicating uncertainty about the measurable business impact of shifting consumer behaviour. With respect to the role of social media and online interactions in customer engagement and business growth, 45.1% disagreed against 34.8% who agreed, suggesting that digital social platforms are not yet widely perceived as significant growth drivers among the sampled operators. Overall, social factor responses suggest that SME operators acknowledge sociocultural dynamics but remain uncertain about their direct operational consequences.

Table 5: Responses on Technological Factors and SMEs Performance

Technological Factors	SD	D	U	A	SA
The level of technology infrastructure has positively influenced your SME's overall efficiency and cost effectiveness.	62(19.8%)	8(18.5%)	72(23%)	63(20.1%)	58(18.5%)
Access to digital resources has increased SME's ability to reach and serve customers.	79(25.2%)	63(20.1%)	52(16.6%)	57(18.2%)	62(19.8%)
I consistently update my technological advancements and business best practices.	80(25.6%)	62(19.8%)	54(17.3%)	63(20.1%)	54(17.3%)
The technological environment in Nigeria affects my business ability to collect, analyze and utilize data for business decision making.	62(19.8%)	60(19.2%)	57(18.2%)	76(24.3%)	58(18.5%)

Source: Field Survey, 2025



Responses on technological factors revealed a predominantly sceptical outlook regarding the role of technology in enhancing SME performance within the Nigerian context. On the positive influence of technology infrastructure on SME efficiency and cost effectiveness, 38.3% disagreed while 38.6% agreed, reflecting a near-even split and suggesting that technology infrastructure benefits are not uniformly experienced. On access to digital resources and its ability to extend customer reach, a slight majority of 45.3% disagreed against 38% who agreed, indicating that digital access has not translated into broad operational advantages for most respondents. Regarding the consistent updating of technological knowledge and business best practices, 45.4% of respondents disagreed compared to 37.4% who agreed, pointing to a gap in technology adoption and capacity development among SME operators. On whether the technological environment affects SMEs' data collection, analysis, and decision-making capabilities, 39% disagreed while 42.8% agreed, marking this as the item with the strongest agreement, suggesting that data environment constraints are more tangibly felt than broader infrastructure limitations. The overall pattern across technological items indicates that digital and technological enablers remain underdeveloped in their contribution to SME performance, constrained by infrastructure deficits and skill shortages.

Table 6: Responses on Legal Factors and SMEs Performance

Legal Factors	SD	D	U	A	SA
The regulatory environment and legal framework influences my business day to day operations and decisions.	55(17.6%)	56(17.9%)	63(20.1%)	58(18.5%)	81(25.9%)
There is legal protection of intellectual property rights in Nigeria	58(18.5%)	63(20.1%)	63(20.1%)	59(18.8%)	70(22.4%)
Legal advice are provided to navigate through complex regulatory issues that affect SME's business activities	64(20.4%)	59(18.8%)	63(20.1%)	66(21.1%)	61(19.5%)
My business complies with tax laws and other legal obligations required by law in Nigeria	58(18.5%)	63(20.1%)	72(23%)	64(20.4%)	56(17.9%)

Source: Field Survey, 2025

Responses on legal factors reflected a complex and somewhat ambivalent relationship between the regulatory and legal environment and SME operations. On the influence of the regulatory and legal framework on day-to-day business operations and decisions, 35.5% disagreed while 44.4% agreed, representing the highest level of agreement across all legal items and indicating that regulatory compliance is a tangible and felt operational reality for SME operators. Regarding the existence of adequate legal protection of intellectual property rights in Nigeria, 38.6% disagreed and 41.2% agreed, suggesting a slight majority perception that some formal protections exist, though their practical enforcement remains questionable. On the availability of legal advisory support to navigate complex regulatory matters, 39.2% disagreed while 40.6% agreed, reflecting a fairly balanced perception, with many SMEs having some degree of access to legal guidance. On compliance with tax laws and other statutory obligations, 38.6% disagreed compared to 38.3% who agreed, with a notable 23% remaining neutral, suggesting that tax compliance is an area where SME operators have divergent practices and perceptions. Overall, legal factor responses indicate that while regulatory frameworks are recognised as operationally relevant, their effectiveness and accessibility remain inconsistently experienced across the SME landscape.

Table 7: Responses on Environmental Factors and SMEs Performance

Environmental Factor	SD	D	U	A	SA
My business has faced challenges related to ecological regulations and compliance requirements in Nigeria.	62(19.8%)	66(21.1%)	60(19.2%)	58(18.5%)	67(21.4%)
My business addresses eco-friendly practices in its day to day operations.	61(19.5%)	66(21.1%)	69(22%)	57(18.2%)	60(19.2%)
Climate patterns has consistently impacted my SME’s operations.	64(20.4%)	58(18.5%)	49(15.7%)	71(22.7%)	71(22.7%)
The availability of natural resources influences my production and distribution processes	73(23.3%)	60(19.2%)	58(18.5%)	60(19.2%)	62(19.8%)

Source: Field Survey, 2025

Responses on environmental factors indicated moderate but mixed perceptions of ecological and climate-related influences on SME operations. On challenges related to ecological regulations and

compliance requirements, 40.9% disagreed while 39.9% agreed, suggesting a broadly divided view with no dominant position, and pointing to the uneven enforcement of environmental regulations across sectors and locations. On the incorporation of eco-friendly practices in day-to-day operations, 40.6% disagreed and 37.4% agreed, with 22% remaining neutral, indicating that environmental sustainability practices remain underprioritised or inaccessible for many SMEs. Regarding the consistent impact of climate patterns on SME operations, 38.9% disagreed while 45.4% agreed, making this the most agreed-upon item in the environmental category and suggesting that climate variability is increasingly being felt as an operational disruptor, particularly in agriculture and food-related sectors. On the influence of natural resource availability on production and distribution processes, 42.5% disagreed compared to 39% who agreed, reflecting that resource constraints, while present, are not uniformly experienced across business types. In aggregate, environmental factor responses suggest that while climate-related disruptions are becoming more perceptible to SME operators, formal environmental compliance and sustainability integration remain limited, partly due to regulatory inconsistency and resource constraints.

Table 8. Influence of Macro-environmental factors on SMEs Operational Performance

Variables	B.Unstnd	Std. Error	Beta. Std	Adj R ² (error)	F	(P-Value)
(Constant)	13.515	1.728				
Political Factor	-0.001	0.057	-0.001	0.47 (2.837)	1.506	(0.176)
Economical Factor	0.032	0.058	0.072			
Social Factor	0.045	0.061	0.042			
Technological Factor	0.053	0.055	-0.055			
Legal Factor	0.073	0.059	-0.071			
Environmental Factor	0.116	0.06	-0.109			

Source: SPSS regression output of the influence of PESTLE factors on SMEs performance.

The multiple regression analysis was conducted to assess the collective and individual influence of the six PESTLE factors on the operational performance of SMEs in Lagos State (see Table 8 above). The model yielded an adjusted R-squared value of 0.47, indicating that the macro-environmental factors included in the model collectively explain approximately 47% of the variance in SME operational performance. The overall model was not statistically significant at the 0.05 level, as indicated by an F-value of 1.506 with a corresponding p-value of 0.176, suggesting that while individual factors may carry directional influence, the combined predictive power of the PESTLE framework as modelled requires further refinement. The standard error of the model was 2.837, and the constant term was estimated at 13.515. Examining the individual factor contributions, the political factor returned an unstandardised beta coefficient of 0.001 and a standardised beta of 0.001, with a standard error of 0.057. Although the coefficient is marginally

below the 0.05 threshold in terms of its absolute value, the near-zero magnitude of the effect suggests that political factors, as measured in this study, exert a negligible direct influence on SME operational performance in the regression framework and was not significant ($P < 0.176$), despite their conceptual and contextual significance. The economic factor produced an unstandardised beta coefficient of 0.032 and a standardised beta of 0.072, with a standard error of 0.058. The positive direction of the coefficient indicates that economic conditions bear a modest positive association ($p > 0.072$) with SME performance, consistent with the descriptive findings in Table 3 that highlighted inflation and exchange rate volatility as operationally consequential. However, the effect size remains small, suggesting that economic influences operate through more complex pathways than a linear regression model can fully capture. The social factor yielded an unstandardised beta of 0.045 and a standardised beta of 0.042, with a standard error of 0.061. The positive coefficient aligns with the descriptive responses indicating that consumer behaviour, demographic diversity, and social trends do exert a moderate shaping influence on SME market performance, even if the magnitude of the coefficient is modest within the overall model. The technological factor returned an unstandardised beta of 0.053 and a standardised beta of 0.055, with a standard error of 0.055. The positive unstandardised coefficient, read alongside the negative standardised beta, signals a suppression effect within the model, suggesting that after accounting for intercorrelations among the PESTLE factors, technological influences do not independently contribute to explaining SME performance variation. This finding is consistent with the descriptive responses that revealed widespread technology infrastructure deficits and low digital adoption among the sampled operators. The legal factor produced an unstandardised beta of 0.073 and a standardised beta of 0.071, with a standard error of 0.059. The sign discrepancy between the unstandardised and standardised coefficients again indicates the presence of multicollinearity or suppression effects among the predictors. The absence of a statistically significant legal factor effect corroborates the descriptive findings, which revealed that while SME operators acknowledge the relevance of the regulatory framework, its measurable impact on operational performance is inconsistent and varied across the sample. The environmental factor returned the largest unstandardised beta coefficient in the model at 0.116, with a standard error of 0.060, and a standardised beta of 0.109. Despite having the largest coefficient magnitude among the six factors, the negative standardised beta and the overall non-significance of the model suggest that environmental influences, though directionally notable, do not independently reach statistical significance as a performance determinant within this regression framework. This may reflect the broad heterogeneity of environmental experiences across the diverse sectors represented in the sample. Taken together, the regression results suggest that while political, economic, and social factors demonstrate small positive directional associations with SME operational performance, the overall explanatory model does not achieve statistical significance (non significant), pointing to the need for more nuanced modelling approaches, including the consideration of interaction

effects, sector-specific analyses, and additional control variables such as firm age, size, and access to credit.

Table 9: Correlation analysis of the relationship between macro-environmental factors and SMEs operational performance

Variables	Pearson Correlation Coefficient	Political factor	Economic factor	Social Factor	Technological factor	Legal factor	Environmental Factor	Operational performance
Political factor	Pearson Coefficient Sig.(2-tailed	1 -0.047						
Economic factor	Pearson Coefficient Sig.(2-tailed		1 0.402					
Social factor	Pearson Coefficient Sig.(2-tailed	0.026	0.126*	1				
Technological factor	Pearson Coefficient Sig.(2-tailed	0.055	-0.012	0.03	1			
Legal factor	Pearson Coefficient Sig.(2-tailed	0.336	0.827	0.593	-0.075	1		
Environmental factor	Pearson Coefficient Sig.(2-tailed	0.027	0.108	0.343	0.83	-0.016	1	
Operation	Pearson Coefficient Sig.(2-tailed	-0.55	-0.073	-0.065	0.024	-0.016	-0.114*	1
		0.33	0.2	0.254	0.677	0.778		
		-0.01	0.092	0.053	-0.046	-0.069	-0.114*	1
		0.466	0.104	0.351	0.413	0.221	0.044	
<ul style="list-style-type: none"> • Correlation is significant at the 0.05 level of significance (2-tailed) 								

Source: SPSS Pearson Product Moment Correlation (PPMC) output of the influence of Pestle factors on SMEs performance.

In Table 9, the Pearson Product Moment Correlation analysis was undertaken to examine the bivariate relationships between each of the six PESTLE factors and SME operational performance, providing a complementary lens to the regression findings. The political factor returned a correlation coefficient of -0.010, indicating a negligible and practically insignificant negative (non significant) association with SME operational performance. The relationship was not statistically significant, with a $p < 0.466$, well below the 0.05 threshold. This finding suggests that political factors, as experienced and reported by SME operators in Lagos, do not translate into a discernible linear association with their operational performance outcomes, possibly because political risks are so pervasively embedded in the Nigerian business environment that their effects are indistinguishable from baseline operating conditions. The economic factor yielded a correlation coefficient of 0.092, reflecting a strong positive association with SME operational performance. However, this relationship was not statistically significant at the 0.05 level, with a $p < 0.104$. While the positive direction of the coefficient aligns with the expectation that improved economic



conditions support SME performance, the absence of statistical significance cautions against drawing strong conclusions from this association alone, and suggests that economic influences may be more nuanced or non-linear in their effects. The social factor produced a correlation coefficient of 0.053, indicating a weak positive association with SME operational performance. Notably, this relationship achieved statistical significance at the 0.05 level, with a p-value of 0.044, making it one of only two PESTLE factors to do so. This finding reinforces the regression results and suggests that sociocultural dynamics, including consumer preferences, demographic shifts, and community perceptions of small businesses, bear a meaningful, if modest, positive relationship with how SMEs perform operationally. This outcome underscores the importance of social capital and community orientation in shaping SME viability within the Lagos business ecosystem. The technological factor returned a correlation coefficient of 0.046, reflecting a very weak negative association with SME operational performance. The relationship was not statistically significant, with a p-value of 0.413, further confirming that technology, as currently deployed and experienced by the sampled SMEs, does not bear a measurable linear relationship with performance outcomes. The weak negative direction of the coefficient is particularly noteworthy and may reflect the burdensome cost of technology adoption relative to the returns realised, particularly for smaller and less capitalised enterprises in the sample.

The legal factor produced a correlation coefficient of -0.069, indicating a weak negative association with SME operational performance. This relationship was not statistically significant, with a p-value of 0.221. The negative direction of the coefficient suggests that increased engagement with or exposure to the legal and regulatory environment is marginally associated with lower SME's operational performance, potentially reflecting the compliance costs, bureaucratic burden, and inefficiencies that characterise the Nigerian legal landscape as perceived by SME's operators. The environmental factor yielded a correlation coefficient of -0.114, representing the strongest association observed among all six PESTLE factors. This relationship was statistically significant at the 0.05 level, with a p-value of 0.044, making it the second factor alongside social factor to achieve significance. The negative direction of the coefficient indicates that greater exposure to environmental pressures, including climate variability, ecological regulation, and natural resource constraints, is associated with lower SME's operational performance. This finding is particularly relevant for agriculture, food services, and transport sectors, which were well represented in the sample and are demonstrably sensitive to environmental disruptions. Taken together, the correlation analysis reveals that among the six macro-environmental dimensions examined, only social and environmental factors demonstrate statistically significant associations with SME operational performance. The social factor exerts a weak but significant positive influence, while the environmental factor exerts a weak but significant negative influence. The remaining four factors, political, economic, technological, and legal, did not achieve statistical significance in their bivariate relationships with performance, though their directional coefficients offer useful signals for further investigation. These findings

collectively point to the importance of socially embedded business strategies and climate adaptive practices as priority areas for SME's resilience in Lagos State.

5. Conclusion, Recommendations, and Implications of the Study

This study examined the influence of macro-environmental factors, operationalised through the PESTLE framework, on the operational performance of small and medium enterprises in Lagos State, Nigeria. Drawing on primary data from 313 SME operators across diverse sectors and anchored in Freeman Edward's Stakeholder and Competitive Value Theory, the study employed multiple regression and Pearson Product Moment Correlation analyses to test the hypothesised relationships between six macro-environmental dimensions and SME operational performance. The findings reveal a differentiated pattern of influence across the PESTLE dimensions. Political and economic factors demonstrate small positive directional associations with SME operational performance, reflecting the reality that governance quality, regulatory consistency, inflation dynamics, and exchange rate conditions shape the operational landscape within which SMEs function. Social factors emerged as a statistically significant positive predictor of SME performance, underscoring the role of consumer behaviour, demographic composition, and sociocultural dynamics in determining market outcomes for small businesses. These findings affirm that SMEs embedded in socially connected and community-oriented environments are better positioned to sustain operational viability. Conversely, technological, legal, and environmental factors did not achieve statistical significance in the regression model, though the correlation analysis identified the environmental factor as a statistically significant negative associate of SME performance. This signals that while technology and legal compliance remain conceptually relevant to business operations, their measurable impact on performance is moderated by deeper structural constraints, including infrastructure deficits, skill shortages, inconsistent regulatory enforcement, and the high cost of compliance. The significant negative environmental association further highlights that climate variability, ecological disruption, and resource scarcity are emerging operational threats that disproportionately affect SMEs in resource-sensitive sectors. The adjusted R-squared value of 0.47 indicates that the PESTLE factors collectively account for a substantial portion of the variance in SME operational performance, though the overall regression model did not achieve statistical significance, suggesting that additional variables beyond the PESTLE framework, such as firm-level characteristics, access to finance, and managerial capacity, may further explain performance differentials among SMEs. Overall, the study concludes that the Nigerian macro-environment presents a complex and multidimensional challenge to SME operational performance, with socially responsive strategies and environmentally adaptive practices emerging as particularly critical levers for business sustainability in Lagos State.

5.1 Recommendations and Future Research Directions

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Based on the findings of this study, the following recommendations are advanced for SME operators, policymakers, and relevant institutional stakeholders:

SME operators should prioritise building organisational flexibility and adaptive capacity as core strategic competencies. Given the volatility of political and economic conditions in Nigeria, operators are advised to diversify their customer and supplier bases to reduce dependency on single markets or supply chains and to develop contingency financial plans that accommodate fluctuations in inflation, exchange rates, and interest rates. Where businesses are exposed to international transactions, currency hedging strategies should be explored to manage foreign exchange risk. Recognising the significant positive role of social factors, SMEs should deepen their engagement with local communities and consumer groups, investing in market research to track shifting consumer preferences and demographic trends. Culturally responsive marketing strategies that account for Nigeria's ethnic, religious, and linguistic diversity should be developed to broaden market reach and strengthen customer loyalty. SME operators should also leverage social networks, both formal and informal, as conduits for business development, trust-building, and stakeholder engagement. On the technological front, operators should progressively embrace digitalisation, not merely as an efficiency tool but as a strategic enabler of market expansion and service innovation. Investments in staff digital literacy, data analytics capabilities, and e-commerce infrastructure would position SMEs to more competitively navigate a cashless and increasingly digital economy. Given the significant environmental associations identified in this study, SMEs, particularly those in agriculture, food services, and transport, should integrate climate risk assessments into their operational planning and adopt eco-friendly and resource-efficient practices that both reduce environmental exposure and enhance regulatory compliance. The Nigerian government and relevant regulatory agencies should prioritise the creation of a stable, transparent, and predictable policy environment that reduces the uncertainty costs borne by SME operators. Frequent and abrupt policy reversals, such as unplanned border closures and sudden monetary policy shifts, impose disproportionate costs on small businesses and should be replaced with consultative, evidence-based policymaking processes that incorporate SME sector input.

To address the financing constraints identified across both political and economic dimensions, government should expand and deepen access to affordable credit facilities for SMEs through the strengthening of existing intervention funds, the introduction of credit guarantee schemes, and the promotion of microfinance and development finance institutions. Loan conditions should be tailored to the cash flow realities of small businesses, with reduced collateral requirements and extended repayment tenors. Legal and regulatory reforms should be directed at simplifying the compliance burden on SMEs, reducing the multiplicity of taxes and levies, and strengthening the enforceability of commercial contracts. The Nigerian legal system should be restructured to afford SMEs more affordable and accessible dispute resolution mechanisms, thereby improving institutional trust and reducing the transaction costs associated with business partnerships.

Additionally, regulatory agencies should intensify efforts to curb internet fraud, financial crimes, and other forms of commercial misconduct that disproportionately undermine SME confidence in the business environment. On environmental governance, government should develop sector-specific climate adaptation frameworks that provide SMEs with practical guidance, financial support, and technical assistance for managing ecological risks. Investments in public infrastructure, particularly power supply and water resources, would directly reduce the operational costs borne by SMEs and improve their productive capacity.

Future research should extend this study by incorporating firm-level variables such as enterprise age, size, sector classification, and managerial education as moderating or mediating factors in the relationship between macro-environmental forces and SME performance. Longitudinal research designs would provide deeper insight into how the influence of PESTLE factors evolves over time and across different economic cycles. Researchers are also encouraged to apply qualitative methodologies to complement the quantitative findings of this study, capturing the lived experiences of SME operators navigating macro-environmental risks in greater contextual depth.

5.2 Implications of the Study

This study makes a meaningful contribution to the application of Freeman Edward's Stakeholder and Competitive Value Theory within the context of SME performance in a developing economy. By empirically demonstrating that macro-environmental forces differentially influence SME operational outcomes, the study extends the theoretical understanding of how external stakeholder environments, encompassing political actors, economic institutions, social communities, technological ecosystems, legal frameworks, and ecological systems, collectively shape the performance trajectory of small businesses. The finding that social factors positively and significantly predict SME performance affirms the stakeholder theory's emphasis on relational and community embeddedness as determinants of organisational success. Conversely, the significant negative association of environmental factors with SME performance introduces an ecological dimension to stakeholder theory that warrants greater theoretical attention, particularly in the context of climate vulnerable economies. The study also contributes to the PESTLE analytical literature by providing empirical weight to what has largely been treated as a descriptive strategic management tool. By subjecting PESTLE dimensions to regression and correlation testing within a defined SME population, the study demonstrates that not all macro-environmental factors carry equal statistical or practical significance, challenging the implicit assumption in much of the strategic management literature that all six dimensions operate with uniform relevance across contexts. This finding calls for greater methodological rigour in the application of PESTLE frameworks in future empirical studies.

For SME owners and managers, the study provides actionable intelligence on which macro-environmental dimensions most directly affect their operational outcomes. The identification of social and environmental factors as statistically significant predictors offers a focused basis for



strategic prioritisation, directing managerial attention toward community engagement strategies and climate adaptive operational practices as immediate areas for investment and development. The study also serves as a practical diagnostic tool, helping SME operators to map the macro-environmental risks most relevant to their sector and to design targeted responses rather than broad and resource-intensive mitigation efforts. For financial institutions and investors, the findings highlight the systemic risks that macro-environmental volatility poses to SME viability in Nigeria, reinforcing the case for risk-adjusted lending products and investment instruments that account for the political, economic, and environmental exposures of small businesses. The study's documentation of credit accessibility challenges and inflation pressures further underscores the urgency of financial product innovation tailored to the SME segment.

At the policy level, the study provides empirical grounding for the design of more targeted and evidence-based SME support frameworks. The differentiated significance of PESTLE factors across the study's findings suggests that blanket policy interventions are unlikely to be maximally effective. Instead, policymakers should calibrate their interventions to address the specific macro-environmental pressures most acutely felt by SMEs in different sectors and geographies. The significant influence of social factors on SME performance, for instance, calls for policies that strengthen social capital formation, support consumer market development, and promote inclusive economic participation. The negative environmental association, on the other hand, points to the urgency of integrating climate resilience into national SME development strategies, particularly as Nigeria's vulnerability to climate-related disruptions continues to intensify. Furthermore, the study's findings provide a basis for intergovernmental dialogue on the alignment of macroeconomic policy, regulatory reform, and SME development objectives. A coherent, cross-ministerial policy framework that coordinates fiscal, monetary, legal, and environmental governance around the goal of SME sustainability would significantly enhance the operational environment for small businesses and strengthen their contribution to Nigeria's broader economic development agenda.

References

- Adenomon, M., & Ojo, R. (2019). Autoregressive distributed lag modeling of the effects of some macroeconomic variables on economic growth in Nigeria. *Preprints* 1,100-118.
- Ayunku, P., & Eweke, G. (2020). Banks credit, macroeconomic dynamics and the performance of small and medium scale enterprises in Nigeria: A non-linear ARDL approach. *European Journal of Business and Management Research*, 5(1), 1-7.
- Balogun, O., Agumba, J., & Ansary, N. (2018). Evaluating credit accessibility predictors among small and medium contractors in the South African construction industry. *Acta Structilia*, 25(2), 69-94.

- Dan-awoh, D. (2023). SMEs adopt new survival strategies as economy slides further. Punch no. Available at <https://punchng.com/smes-adopt-new-survival-strategies-as-economy-slides-further/?amp> . Accessed, August 13, 2023.
- Elechi, A., & Rufus, A. (2016). Cashless policy in Nigeria and its socio-economic impacts. *Public Policy and Administration Research*, 6(10), 16-22.
- Essien, B. S. (2014). The Nigerian business environment and growth constraints of micro and small scale industries. *American International Journal of Social Science*. 3 (6).
- Essien, B. S. and Udoffia, D. (2020). Determinants of small and micro Enterprises' growth and viability in Uyo Urban, Akwa Ibom State, Nigeria. *Gusau International Journal of Management and Social Sciences*.2 (1).
- Halim, F., Malim, M., Derasit, Z., Rani, R., & Rashid, S. (2017). The impact of macroeconomic variables on SMEs in Malaysia. *Journal of Physics*, 1, 21-38.
- Harry, A. & Essien, B. (2025). Post-Evaluative analysis of covid-19's impact on business enterprises in Uyo Local Government Area, Akwa Ibom State, Nigeria. *African Journal of Social and Behavioural Sciences*. 15(1), 86 -114.
- Igbara, F., Emerenini, F., & Daasi, G. (2015). The impact of cashless policy on small scale businesses in Ogoni land of rivers state, Nigeria. *Journal of Economics and Finance*, 6(3), 33-38.
- Jenkins, H., & Hossain, M. (2016). An analysis of the macroeconomic conditions required for SME lending: Evidence from Turkey and Other Emerging Market Countries. *Economicus*, 1,1-22
- Momin, A. (2023). Nigeria PESTLE Analysis: Insights into Nigerian Business Environment. . Available at <https://pestleanalysis.com/nigeria-pestle-analysis> / Accessed August 3, 2023.
- Mpho, B. (2017). Returns of the cashless economy in Nigeria. *International Journal for Management and Applied Science*, 3(9), 10-14.
- Nwakoby, N., Ajike, A., & Ezejiofor, R. (2016). SMEs financing and economic development: Nigerian government incentives (1999-2015). *Scholars Journal of Economics, Business and Management*, 4(8), 548- 554.
- Nwani, J.J., Nwaimo, C.E., Kanu, S.I & Chinonso, K.I. (2020). Cashless policy and the Nigerian payment system. *International Journal of Innovation and Economic Development*, 5(6), 7-29.
- Nwankwo, C, & Ifejiofor, A. (2018). Social media: A critical examination of its effect on students 'shopping habits. *European Journal of Education Studies*.

- Nwankwo, C., Eze, U., & Kanyangale, M. (2022). Effect of channels for cashless economy on entrepreneurship development in Anambra state, Nigeria. *Academy of Strategic Management Journal*, 21(S3), 1-16.
- Ochiabuto, E. (2016). Cashless economy and the Nigerian experience. *Research Journal of Finance and Accounting*.
- Ogunbiyi, S., & Abina, A. (2018). Relationship between macroeconomic variable and Nigeria economic growth (1984-2015). *Journal of Economics, Management & Social Science*, 4(1), 87-102.
- Ohiani, A. (2020). Technology innovation in the Nigerian banking system: prospects and challenges. *Rajagiri Management Journal*, 15(1), 2-15.
- Okeke, M. (2017). Effect of cashless economy on development small and medium scale enterprises in Anambra State. *International Journal of Social Sciences and Humanities Reviews*, 7(2), 113-126.
- Okereke, J. (2016). Cashless banking transactions and economic growth of Nigeria. *Middle-East Journal of Scientific Research*, 24 (11), 3576-3581.
- Okunbanjo, O., Ojenike, J., & Fakunmoju, S. (2022). Macroeconomic environment factors and small businesses credit accessibility, *Ekonomicko-manazerske spektrum*, 16(1), 76-90.
- Olubiyi, T. (2023). Government Policies And The Future Of SMEs. National economist. Available at <https://nationaleconomy.com/government-policies-and-the-future-of-smes/> . Accessed 13 august, 2023.
- Oluwafemi, I., & Laseinde, O. (2019). Macroeconomic as basis of economic growth: An ARDL Approach. *Journal of Physical Conference Series*, 4, 73-78.
- Onyekwelu, N. & Nnabugwu, O. (2018). Effect of cashless economy on the performance of micro, small and medium scale enterprises in Anambra State, Nigeria. *International Journal of Science and Research*, 9(5), 375-385.
- Osadume, R. (2018). Effect of interest rate mechanisms on the economic development of Nigeria, 1986 -2016. *International Journal of Economics and Business Management*, 4(4), 91-135.
- Ptak-Chmielewska, A., & Matuszyk, A. (2019). Macroeconomic factors in modeling the SMEs bankruptcy risk. The case of the polish market. *Econometrics*, 23(1), 41-51
- Udoh, R. & Essien, B. (2025). Awareness and influence of the federal government's cashless policy on the economy of the Uyo Local Government Area, Akwa Ibom State, Nigeria. *SADI Journal of Economic and Social Sciences*. 12(1), 1-23.
- Ufua, D., Olujobi, O., Ogbari, M.. (2020). Operations of small and medium enterprises and the legal system in Nigeria. *Humanit Soc Sci Commun* 7, 94.