

Research Article

The Impact of COVID-19 on Small and Medium-Sized Enterprises in Nigeria

Odenigbo Paul Nwangbo^{1,*} , Li Qigeng¹ , Sackey Naa Adjeley¹ ,
Nnadi Kelechi John² 

¹School of Economics and Business Administration, Taiyuan University of Technology, Taiyuan, PR China

²School of Electrical and Power Engineering, Taiyuan University of Technology, Taiyuan, PR China

Abstract

This study investigates the impact of the COVID-19 pandemic on small and medium-sized enterprises (SMEs) in Nigeria, with a focus on financial, operational, and policy-related dimensions. As vital contributors to Nigeria's economy—accounting for 49.5% of GDP and employing over 80% of the private workforce—SMEs were disproportionately affected by pandemic-induced disruptions, including lockdowns, supply chain breakdowns, and declining consumer demand. Drawing on a mixed-methods approach, the research combines survey data from 250 SMEs across Lagos, Abuja, and Port Harcourt with qualitative analysis of policy documents using the Smith Model framework. Findings reveal significant sectoral disparities: while ICT and e-commerce firms recorded a 12% revenue increase due to digital adaptability, traditional sectors such as hospitality and manufacturing suffered losses exceeding 50%. Only 24% of SMEs accessed the Central Bank of Nigeria's ₦50 billion credit facility, highlighting systemic barriers such as bureaucratic inefficiencies and restrictive eligibility criteria. Digital transformation emerged as a key resilience driver, with firms adopting e-commerce platforms showing a negative correlation with revenue decline ($r = -0.45, p < 0.01$). Theoretically, the study extends the Smith Model by incorporating “shock responsiveness” to reflect crisis-era policymaking realities. Practically, it offers a roadmap for strengthening SME resilience through policy agility, digital infrastructure investment, and targeted financial inclusion. The research contributes to crisis management discourse in developing economies and underscores the urgency of redesigning support systems that are inclusive, adaptive, and execution-focused.

Keywords

SMEs, COVID-19, Nigeria, Policy Implementation, Crisis Management, Government Intervention

1. Introduction

1.1. Background of the Study

Small and Medium-Sized Enterprises (SMEs) are central to Nigeria's economic structure, accounting for 49.5% of the

country's Gross Domestic Product (GDP) and employing approximately 84% of the private-sector workforce [1]. Despite their economic importance, the COVID-19 pandemic exposed deep-rooted vulnerabilities within the SME ecosys-

*Corresponding author: Odenigbopaul@gmail.com (Odenigbo Paul Nwangbo)

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tem. The imposition of nationwide lockdowns, supply chain disruptions, and declining consumer demand led to the closure of nearly 30% of Nigeria's 24 million registered SMEs [2], resulting in an estimated economic loss of ₦94 trillion and contributing to rising unemployment and poverty levels.

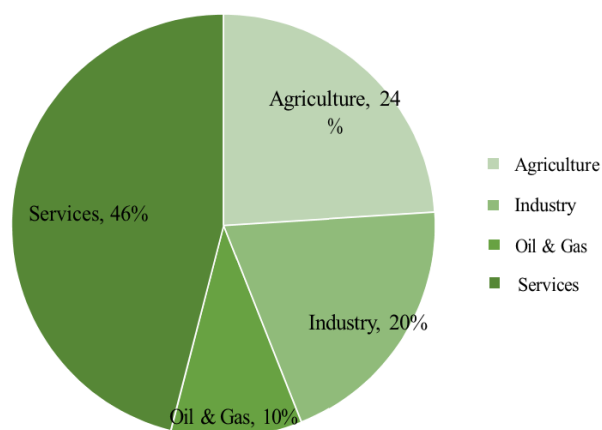


Figure 1. Sectoral Contribution to Nigeria's GDP (2023) [3].

While global research has examined pandemic-related SME challenges, Nigeria's experience is shaped by unique macroeconomic and structural factors. These include persistent currency depreciation (₦1,479.9/USD in 2024), soaring public debt (₦142.3 trillion), weak infrastructure, and limited digital access. Existing studies tend to focus on regional or sector-specific impacts, often neglecting a comprehensive national analysis. This study addresses that gap by examining how Nigerian SMEs coped with the crisis, the effectiveness of government support measures, and what lessons can inform future resilience-building efforts.

1.2. Statement of the Problem

The COVID-19 crisis disproportionately impacted Nigerian SMEs by magnifying longstanding structural and institutional weaknesses. Many lacked access to finance, digital infrastructure, and crisis-management capacity, making them especially vulnerable to prolonged disruptions. Although government relief programs were introduced—such as the ₦50 billion Targeted Credit Facility from the Central Bank of Nigeria—only about 20–25% of SMEs were able to access this support, due to complex application processes, collateral requirements, and limited outreach [4].

Moreover, the crisis revealed a sharp divide between sectors. While ICT and e-commerce firms recorded revenue growth (+12%) thanks to their digital adaptability, traditional sectors such as hospitality saw catastrophic losses, with revenue falling by as much as 72%. Existing academic work has not sufficiently explored these sectoral divergences or the national policy implementation landscape, particularly from

the perspective of resilience and adaptability.

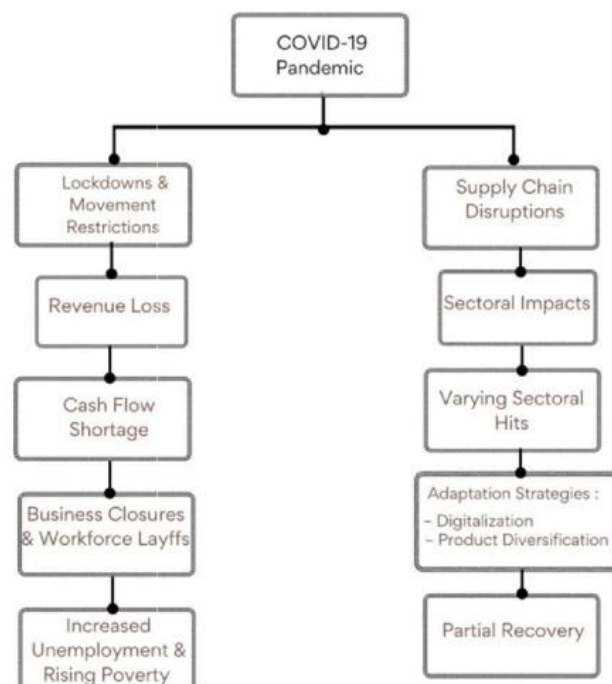


Figure 2. COVID-19 Impact Pathway on Nigerian SMEs.

1.3. Research Objectives

This study seeks to examine the impact of the COVID-19 pandemic on Nigerian SMEs from a national perspective. Specifically, it aims to assess the financial, operational, and employment-related consequences of the pandemic; evaluate the effectiveness of adaptive strategies such as digital transformation and cost-reduction measures; and analyze policy implementation challenges using the Smith Model framework. Through this, the study aims to contribute actionable insights into improving SME resilience and informing future policy design in crisis-prone environments.

1.4. Research Questions

- 1) What operational and financial challenges did Nigerian SMEs face during the pandemic?
- 2) How effective were government interventions in mitigating adverse impacts?
- 3) Which sectors demonstrated resilience, and what factors contributed to their success?

1.5. Significance of the Study

This research contributes on three fronts. Theoretically, it enhances understanding of policy implementation and crisis management in resource-constrained economies by applying and adapting the Smith Model. Practically, the study offers

policymakers and development practitioners a set of data-driven recommendations to improve the design, targeting, and execution of SME support programs during future crises. Socially, the findings underscore the importance of safeguarding SMEs to reduce unemployment and poverty, promoting inclusive economic recovery, and building resilience against future shocks.

2. Literature Review

The COVID-19 pandemic had a profound and multifaceted impact on small and medium-sized enterprises (SMEs) in developing economies. These enterprises are critical to economic development, employment generation, and innovation. However, their limited access to financial resources, weak infrastructure, and limited crisis-management capacity rendered them particularly vulnerable during the pandemic. The crisis not only disrupted operations but also exposed deep structural fragilities, making survival increasingly difficult for many businesses.

2.1. Global Impacts of the Pandemic on SMEs

A consistent pattern across developing regions is that SMEs experienced sharp revenue declines and operational paralysis during the pandemic. For instance, small foodservice firms in India reported entering "survival mode," citing drastic drops in sales due to health restrictions [5]. In the Caribbean, both low-income families and smaller businesses suffered major income losses, reflecting a broader trend of economic vulnerability [6]. Similar findings were documented in Pakistan and Ghana, where SMEs faced severe financial distress, often failing to pivot quickly to new market realities [7, 8].

Gender disparities further intensified during the pandemic. Women-led businesses experienced disproportionately higher revenue losses, largely because they operate predominantly in sectors most affected by lockdowns—such as retail and hospitality. In South Africa, market women reported significant income reductions, a pattern echoed in India and other emerging markets [5, 9, 10].

2.2. SME Response Strategies: Digital Transformation and Adaptation

Despite these challenges, many SMEs adopted survival strategies, especially through digital transformation. Businesses turned to e-commerce, digital marketing, and remote work tools to retain customer engagement and streamline operations. Studies highlight a significant increase in the adoption of digital tools among micro and small enterprises, particularly in Nigeria, Pakistan, and Kenya [11, 12]. Digitalization proved not only a short-term lifeline but also a long-term opportunity for operational evolution and market expansion.

2.3. Government Interventions: Global and Local Perspectives

Governments and financial institutions in developing countries introduced support mechanisms to buffer SMEs from the economic shock. While many programs aimed to provide low-interest loans and wage subsidies, the effectiveness of these interventions varied widely. Access issues, bureaucratic hurdles, and limited outreach were common problems. Amoah et al. (2021) noted that many SMEs, particularly in informal sectors, lacked awareness or eligibility, leaving them excluded from much-needed support [13].

The pandemic has thus revealed the need for more inclusive, responsive, and well-coordinated policy responses. Studies emphasize the importance of building strategic frameworks for SME resilience, incorporating both financial and operational support, as well as digital infrastructure development [14, 15].

2.4. The Nigerian Context: Pre-Pandemic Challenges

Before COVID-19, Nigerian SMEs already faced structural challenges that limited their growth. Chief among these was access to finance. Despite recognition of SMEs' importance to the economy, many entrepreneurs struggled to obtain loans due to stringent lending requirements, high interest rates, and a weak credit reporting culture [16-18]. Financial institutions often viewed SMEs as high-risk, compounded by poor record-keeping and informality among business owners [19].

Infrastructure deficits further constrained SME productivity. Persistent issues such as unreliable electricity, inadequate transportation networks, and limited access to digital technology contributed to higher operating costs and lower competitiveness [20-22]. For example, erratic power supply forced many SMEs to rely on expensive alternatives like generators, increasing overheads significantly.

Regulatory unpredictability and high tax burdens also characterized the Nigerian business environment. Bureaucratic red tape, inconsistent policy enforcement, and frequent regulatory changes created uncertainty, discouraging long-term investment [23-25]. Additionally, SMEs faced challenges related to low technological adoption. Many enterprises demonstrated limited awareness or usage of ICT tools, placing them at a disadvantage compared to more digitally integrated competitors [26].

2.5. Government Interventions in Nigeria During COVID-19

To mitigate the pandemic's impact, the Nigerian government introduced several interventions, most notably the Central Bank of Nigeria's (CBN) Targeted Credit Facility (TCF). This program was designed to provide low-interest loans to

SMEs affected by the crisis, enabling them to stabilize operations and retain staff [27]. While the initiative marked a crucial step toward economic relief, its execution faced several challenges.

Disbursement delays, bureaucratic bottlenecks, and limited transparency in the approval process hindered its effectiveness [28]. Many SMEs—especially micro and informal enterprises—were either unaware of the facility or unable to meet the eligibility criteria. This limited reach undermined the program's intended impact, a concern echoed in other government support schemes [29].

Critically, support programs focused heavily on financing while neglecting complementary needs such as managerial training, access to markets, and infrastructure support. Scholars have called for a more holistic approach, advocating for capacity-building programs, digital literacy training, and policy frameworks that evolve with sectoral realities [30, 31].

Moreover, current studies tend to emphasize qualitative insights or region-specific analyses, with limited use of nationwide quantitative data. A more comprehensive research effort—integrating broader survey data and policy evaluation metrics—is essential for designing future interventions that are both equitable and effective [32, 33].

Conclusion

The literature reveals that while Nigerian SMEs have shown resilience, their ability to withstand and recover from crises like COVID-19 remains constrained by structural weaknesses, limited digital capacity, and inconsistent policy implementation. The pandemic has amplified the urgency for reform—requiring better access to finance, stronger infrastructure, more inclusive digital tools, and improved policy execution. A coordinated strategy, built on evidence-based insights and stakeholder engagement, will be critical in ensuring long-term SME resilience and inclusive economic growth in Nigeria.

3. Theoretical Framework

3.1. Introduction to the Smith Model

The Smith Model, introduced by Thomas B. Smith in the 1970s, serves as a useful framework for analyzing public policy implementation. It focuses on the interactions among four key components: idealized policies, executing agencies, target groups, and the policy environment. This model is particularly relevant for assessing Nigeria's small and medium-sized enterprise (SME) support mechanisms during the COVID-19 pandemic, where the gap between policy formulation and actual implementation became evident.

By unpacking each component, the Smith Model offers insights into systemic inefficiencies, misalignments between stakeholders, and structural barriers that impeded policy outcomes. Its structured, systems-oriented perspective enables a critical examination of how policies—although well-intentioned on paper—can fall short when confronted

with real-world complexity.

3.2. Components of the Smith Model

Idealized Policies

Idealized policies represent the formal goals, rules, and strategies laid out by government authorities. In the Nigerian context, these included the Central Bank of Nigeria's (CBN) ₦50 billion Targeted Credit Facility, tax reliefs, payroll subsidies, and grants under the MSME Survival Fund, as well as digital infrastructure initiatives aimed at boosting e-commerce.

However, such policies often rely on unrealistic assumptions—seamless coordination, timely resource allocation, and uniform institutional capacity—that rarely hold in practice. For instance, while liquidity support was a central objective, stringent collateral requirements and bureaucratic processes made access difficult, especially for micro and informal SMEs.

Executing Agencies

Executing agencies are tasked with operationalizing policy directives. In Nigeria, this role was primarily played by the CBN, the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), state ministries, and participating financial institutions. The effectiveness of these agencies depends on coordination, technical capacity, and commitment.

In practice, disjointed federal and state-level operations, coupled with low digital literacy among some local officials, delayed implementation and introduced inefficiencies. A key example is the limited uptake of the Targeted Credit Facility—only 20–25% of SMEs were able to access the funds due to procedural and administrative barriers.

Target Groups

Target groups are the intended beneficiaries of policy interventions. In this case, Nigerian SMEs across different sectors and regions. Their characteristics—such as access to information, digital capacity, and ability to adapt—significantly affect how well policies are received and utilized.

Survey data highlighted that 60% of rural SMEs were unaware of available relief programs. Moreover, firms in traditional sectors like hospitality were less capable of digital transformation compared to those in ICT or e-commerce, limiting their ability to benefit from digitally-focused support initiatives. Additionally, some micro-enterprises were excluded altogether due to high eligibility thresholds.

Policy Environment

The policy environment refers to the external context in which policies are implemented. In Nigeria, this included both pre-existing structural issues and pandemic-induced disruptions. Key environmental factors during the study period included underdeveloped digital infrastructure, high inflation (22.4% in 2024), and significant currency depreciation (₦1,479.9 to the USD).

Lockdowns and supply chain disruptions further con-

strained SME operations, undermining even well-designed policies. For instance, despite the government's promotion of digital tools, logistical challenges under movement restrictions made adoption difficult for many firms.

3.3. Application of the Smith Model to Nigeria's SME Policies

Table 1 illustrates how the Smith Model's components interacted within Nigeria's policy framework during the COVID-19 response. The dynamic interplay among policy goals, institutional execution, target group realities, and environmental conditions explains the uneven outcomes observed.

Table 1. *Smith Model's component in relation to Nigeria's Policy framework.*

Component	Challenges in Nigeria
Idealized Policies	Misalignment between rapid-response goals and rigid eligibility or access criteria.
Executing Agencies	Fragmented inter-agency coordination and limited outreach in rural areas.
Target Groups	Low awareness, uneven digital skills, and sector-based differences in adaptability.
Policy Environment	Macroeconomic instability, infrastructure gaps, and pandemic-related operational hurdles.

These challenges resulted in divergent outcomes across sectors. SMEs in the ICT and e-commerce sectors experienced relative success, aided by better digital readiness and a strong negative correlation between digital adoption and revenue decline ($r = -0.45$). Conversely, firms in hospitality and traditional retail saw revenue losses of up to 50%, driven by both environmental constraints and institutional shortcomings.

3.4. Theoretical Contributions

The application of the Smith Model to Nigeria's pandemic-era SME policies offers two main theoretical insights. First, it underscores the persistent gap between policy intentions and practical outcomes. Idealized policies often fail when not adapted to the real-world capabilities of executing agencies and the lived experiences of target groups. Second, it emphasizes the need for adaptive policy frameworks that are responsive to crisis conditions. In rapidly changing environments like a pandemic, flexibility, stakeholder engagement, and contextual understanding become essential for effective policy execution.

These findings contribute to the broader discourse on policy implementation in developing countries, particularly in crisis contexts. They suggest that future SME support strategies must be grounded in operational realism, account for local constraints, and adopt a more inclusive and iterative approach to design and delivery.

Table 2. *Smith Model comparison table.*

Original Smith Model Components	Adapted Model (with "Shock Responsiveness")
Idealized Policies	Idealized Policies + Real-Time Economic Adjustments (e.g., inflation indexing)
Executing Agencies	Executing Agencies + Crisis-Specific Coordination Mechanisms.
Target Groups	Target Groups + Proactive Outreach to Marginalized Sectors.
Policy Environment	Policy Environment + Dynamic Monitoring of External Shocks
-	Shock Responsiveness: Adaptive policy recalibration during crises (e.g., flexible eligibility, rapid disbursement mechanisms).

4. Methodology

4.1. Research Design

This study employed a mixed-methods research design to examine the impact of COVID-19 on small and medium-sized enterprises (SMEs) in Nigeria. Quantitative analysis was

based on primary survey data, while qualitative insights were drawn from policy documents and secondary reports. The design served three main objectives: (1) to quantify the financial, operational, and employment effects of the pandemic on SMEs; (2) to evaluate the effectiveness of government support programs and SME adaptive strategies, particularly digital transformation; and (3) to contextualize the findings using the Smith Model framework, identifying gaps between

policy design and implementation.

A cross-sectional survey was conducted during the post-pandemic recovery phase (2023–2024), targeting SMEs to capture a snapshot of their recovery status and experiences.

4.2. Data Collection Methods

4.2.1. Primary Data

Primary data was collected through a structured questionnaire administered to 250 SME owners across three major Nigerian cities: Lagos, Abuja, and Port Harcourt. The questionnaire included a mix of closed-ended Likert-scale items and open-ended questions. Key areas of focus included rev-

enue trends before and after the pandemic, access to government intervention programs (e.g., the Central Bank of Nigeria's Targeted Credit Facility), and adaptive responses such as workforce restructuring and digital tool adoption.

A stratified random sampling technique was used to ensure sectoral representation. Respondents were drawn from four sectors—ICT, manufacturing, retail, and hospitality—with proportional distribution across cities: Lagos (40%), Abuja (30%), and Port Harcourt (30%). Inclusion criteria required that firms employ between 10 and 199 people and generate annual revenue below ₦1 billion, consistent with the SME classification outlined in Table 3.

Table 3. Standards for Classifying Small and Medium-Sized Enterprises (SMEs).

Category	Micro Enterprise	Small Enterprise	Medium Enterprise
Number of Employees	1 - 9	10 - 49	50 - 199
Annual Revenue (NGN)	≤ 5 million	> 5 million - 100 million	> 100 million - 1 billion
Annual Revenue (USD)	≤ \$10,000	\$10,000 - \$200,000	\$200,000 - \$2 million
Total Assets (NGN)	≤ 5 million	> 5 million - 100 million	> 100 million - 1 billion
Total Assets (USD)	≤ \$10,000	\$10,000 - \$200,000	\$200,000 - \$2 million
Legal Status	Sole proprietorship, informal business	Registered business, limited liability	Limited liability, incorporated
Industry Examples	Street vendors, artisans, home businesses	Retail shops, small manufacturers, restaurants	Larger manufacturers, IT firms, export businesses
Access to Credit	Limited, informal loans	Moderate, bank loans, microfinance	High, bank financing, venture capital

4.2.2. Secondary Data

Secondary data sources included government publications, academic literature, and official policy documents. Specifically, the study examined:

- 1) Reports from the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), Central Bank of Nigeria (CBN), and the National Bureau of Statistics (NBS);
- 2) Peer-reviewed academic studies on SME resilience and pandemic response strategies in Africa and globally;
- 3) Policy documents such as the MSME Survival Fund guidelines, tax relief announcements, and digital infrastructure investment plans.

4.3. Analytical Tools

4.3.1. Quantitative Analysis

Quantitative data were analyzed using SPSS v28. Descrip-

tive statistics—mean, median, and standard deviation—were used to summarize revenue, employment, and operational costs. Inferential analysis included:

- 1) Pearson's correlation to assess relationships between key variables, such as the level of government support and reported revenue changes.
- 2) Paired sample t-tests to compare SME revenue levels between 2019 (pre-pandemic) and 2023 (post-pandemic).
- 3) Sectoral comparisons highlighting resilience patterns among sectors, particularly the relatively stable performance of ICT and e-commerce firms versus the vulnerability of hospitality and manufacturing enterprises.

4.3.2. Qualitative Analysis

Qualitative data were coded and analyzed using NVivo 12, applying the Smith Model as a theoretical framework. Analysis focused on four dimensions:

- 1) Idealized Policies – the alignment between the design of relief programs and SME needs.
- 2) Executing Agencies – the administrative efficiency of implementation by agencies such as the CBN and SMEDAN.
- 3) Target Groups – the level of SME awareness and actual utilization of support schemes.
- 4) Policy Environment – broader macroeconomic and infrastructural challenges affecting policy execution.

4.3.3. Software

Two main software tools supported the analysis: SPSS v28 for statistical data processing and NVivo 12 for thematic analysis of qualitative data, including policy texts and open-ended survey responses.

4.4. Ethical Considerations

All participants provided informed consent after being briefed on the study's purpose, voluntary nature, and confidentiality measures. The survey did not collect any personally identifiable information, and responses were anonymized and aggregated. Data was securely stored using encrypted digital systems, with access limited to the core research team.

4.5. Limitations

This study has several limitations. First, the geographic

scope was restricted to urban centers—Lagos, Abuja, and Port Harcourt—potentially limiting the generalizability of findings to rural SMEs. Second, key data on revenue and employment were self-reported, introducing potential recall bias. Third, the cross-sectional design provides a snapshot of post-pandemic conditions but limits conclusions about long-term recovery trends or causal relationships.

5. Results

This chapter presents the empirical results of the study, structured to address the key research questions concerning the financial, operational, and policy-related impacts of the COVID-19 pandemic on small and medium-sized enterprises (SMEs) in Nigeria. Findings are organized thematically, integrating quantitative trends with qualitative insights.

5.1. Financial Impact of COVID-19

The financial consequences of the pandemic were severe across the SME landscape. A striking 92% of surveyed firms reported post-pandemic revenue losses, with an average decline of 45% compared to 2019 levels. However, sectoral disparities were evident. The hospitality sector experienced the steepest decline at 72%, followed by manufacturing at 58%. In contrast, ICT and e-commerce firms recorded a 12% increase in revenue, highlighting sector-specific resilience.

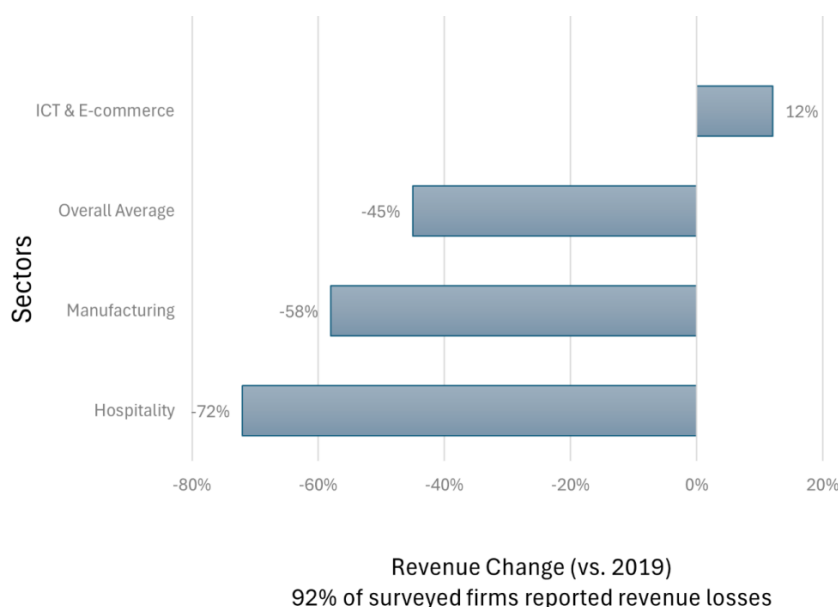


Figure 3. Illustrates sectoral revenue trends, comparing pre- and post-pandemic income across key sectors.

A statistically significant negative correlation was observed between access to government financial aid and revenue decline ($r = -0.62$, $p < 0.01$). SMEs that received support fared better in terms of financial recovery. However, only 24% of

SMEs were able to access the Central Bank of Nigeria's ₦50 billion Targeted Credit Facility. Barriers to access included bureaucratic delays, extensive documentation requirements, and collateral demands.

Table 4. Access to Government Support Programs.

Program	Applicants	Successful Beneficiaries	Primary Barriers
CBN Targeted Credit Facility	1,200 SMEs	288 SMEs (24%)	Bureaucracy, collateral requirements
MSME Survival Fund	850 SMEs	340 SMEs (40%)	Complex documentation

5.2. Operational Adaptations and Resilience

SMEs adopted a range of operational strategies to survive the disruption. Digital transformation emerged as a critical adaptation. Firms that adopted digital tools—such as e-commerce platforms and remote work software—experienced a moderate negative correlation with revenue decline ($r = -0.45$, $p < 0.01$). Overall, 38% of SMEs transitioned to online sales, with ICT firms leading digital adoption at 78%.

Cost-cutting was another widespread response. Workforce reductions correlated strongly with revenue decline ($r = 0.75$, $p < 0.01$), suggesting that layoffs were more reactive than preventive. Additionally, 64% of SMEs reduced operational hours, and 41% renegotiated rent or utility payments to ease financial pressure.

5.3. Sectoral Disparities

Clear sectoral differences emerged in terms of resilience and recovery. The ICT and e-commerce sector experienced revenue growth (+12%), benefiting from increased demand for digital services during lockdowns. The agriculture sector saw a moderate decline of 18%, aided by exemptions from movement restrictions and consistent food demand.

Conversely, the hospitality industry reported catastrophic losses, with 72% revenue decline and 34% of businesses closing permanently. Manufacturing was also heavily affected, with 58% revenue loss and a 22% reduction in workforce, primarily due to supply chain breakdowns and raw material shortages.

Table 5. Sectoral Performance Metrics.

Sector	Revenue Change	Closure Rate	Workforce Reduction
ICT/E-commerce	+12%	5%	8%
Hospitality	-72%	34%	45%
Manufacturing	-58%	22%	35%

5.4. Policy Implementation Challenges

One of the most critical findings relates to implementation disparities, particularly along geographic lines. Urban SMEs in Lagos and Abuja accessed 68% of available relief funds, compared to just 14% for rural SMEs. Respondents from rural areas cited poor digital infrastructure, limited outreach by executing agencies, and weak internet connectivity as primary barriers.

Awareness of available support was also uneven. Among micro-enterprises, 60% were unaware of government relief programs, compared to 25% of medium-sized firms. This gap suggests that smaller businesses—often more vulnerable—were also less informed, reducing their ability to engage with support systems.

5.5. Smith Model Analysis

Applying the Smith Model to the empirical findings reveals significant gaps between policy design and execution.

Idealized Policies vs. Reality:

Many policies assumed conditions that did not exist. For instance, 62% of micro-SMEs were excluded due to strict eligibility requirements, despite being the most financially fragile. Delays in fund disbursement further undermined policy effectiveness.

Executing Agencies:

Execution was hindered by fragmented coordination between federal institutions like the CBN and state-level actors. This led to administrative delays and inconsistent program rollout, particularly in under-resourced regions.

Target Groups:

Low levels of awareness and digital readiness among SMEs, especially in rural and traditional sectors, limited program uptake. As noted earlier, micro-enterprises were both less informed and less equipped to comply with documentation and technology-based application procedures.

Policy Environment:

The broader macroeconomic context—marked by inflation at 22.4% in 2024, currency volatility, and infrastructural deficits—further weakened the ability of SMEs to recover. Lockdowns, restricted movement, and demand shocks disrupted business continuity, even for firms eligible for support.

6. Discussion

This chapter interprets the empirical findings from Chapter 6 within the context of existing literature on SME resilience, policy implementation, and crisis management. Using the Smith Model as a guiding framework, the analysis highlights systemic failures in Nigeria's pandemic response and identifies practical and theoretical implications. The discussion also offers policy recommendations and outlines future research directions.

6.1. Interpretation of Key Findings

The study revealed a stark divergence in performance across sectors during the pandemic, with digital capacity emerging as a decisive factor. ICT and e-commerce firms reported revenue growth of 12%, while sectors such as hospitality and manufacturing experienced significant losses—72% and 58% respectively. These findings reinforce the argument that digital readiness is a key determinant of SME resilience in crisis contexts. ICT firms were able to leverage pre-existing infrastructure and digital tools to pivot to remote work and e-commerce, aligning with global trends observed by the OECD (2021). In contrast, traditional sectors, heavily dependent on physical infrastructure and face-to-face service delivery, were less capable of adapting.

The strong correlation between digital adoption and financial performance ($r = -0.45$, $p < 0.01$) underlines the importance of technological agility. SMEs that adopted online platforms, contactless payment systems, or remote working tools were better positioned to maintain operations and customer engagement during lockdowns.

Policy implementation challenges were equally pronounced. Only 24% of SMEs accessed the Central Bank of Nigeria's Targeted Credit Facility, mainly due to bureaucratic hurdles and collateral requirements. This reflects a broader issue in many developing economies, where rigid eligibility criteria and fragmented institutional coordination limit policy reach. Similar trends have been reported in Ghana and Kenya, where micro-enterprises were excluded from COVID-19 relief due to administrative complexity (World Bank, 2022). Furthermore, the study found a significant urban-rural divide: SMEs in Lagos and Abuja received a disproportionate share of relief funds, while rural SMEs—often more vulnerable—were left underserved.

6.2. Theoretical Implications: Refining the Smith Model

The Smith Model provided a valuable lens to evaluate Nigeria's policy response. However, this study suggests the need for an adapted version of the model that incorporates responsiveness to external shocks.

First, the concept of Idealized Policies in the Smith Model assumes stability. In crisis contexts, this is a flawed premise.

Nigeria's support programs did not account for inflation (22.4%) or currency depreciation (₦1,479.9/USD in 2024), which eroded the real value of financial assistance. This disconnects between monetary targets and economic realities illustrates the need for adaptive policy design.

Second, Executing Agencies struggled due to institutional fragmentation. The absence of coordination between federal and state actors slowed disbursement and generated redundancies. These findings echo similar observations in India's COVID-19 SME support efforts (UNDP, 2023), where multiple overlapping programs caused administrative delays.

Third, Target Groups—particularly rural and micro-sized enterprises—remained largely uninformed about available support. Sixty percent of rural SMEs were unaware of relief measures, a problem also noted in ILO (2020) research, which highlighted systemic exclusion of marginalized business groups in global crisis response efforts.

These findings support a revised model that embeds "shock responsiveness" as a fifth dimension—acknowledging that implementation must remain flexible under volatile economic and social conditions.

6.3. Practical Implications for Policymakers

The study's findings inform several policy directions aimed at improving future crisis responses:

- 1) Targeted Financial Inclusion: Simplify the application process for micro-enterprises, introduce collateral-free loan options, and promote mobile-based registration systems. Bangladesh's use of collateral-free COVID-19 credit schemes provides a viable model (IMF, 2021).
- 2) Digital Infrastructure Investment: Expansion of rural broadband and subsidized digital tools can replicate the resilience seen in ICT firms across other sectors.
- 3) Improved Stakeholder Coordination: A centralized digital portal integrating federal and state-level support programs would streamline access and reduce bureaucratic redundancies.

Nigeria's Startup Act 2022 provides a legislative framework to operationalize these recommendations. For instance, its provisions for tax incentives (Section 12) align with proposals to reduce SME tax burdens, while its emphasis on digital infrastructure (Section 8) supports subsidized broadband expansion. By leveraging the Act's mandate for a 'Startup Portal' (Section 5), policymakers could centralize relief programs, streamline bureaucratic processes, and enhance transparency—directly addressing the urban-rural divide and low digital adoption identified in this study.

Table 6. Policy Recommendations Matrix.

Challenge	Recommendation	Global Benchmark
Urban-rural	Mobile banking and	Kenya's M-Pesa

Challenge	Recommendation	Global Benchmark
divide	outreach in rural areas	financial inclusion
Low digital adoption	Subsidized tech training for SMEs	India's Digital India Initiative
Bureaucratic delays	Centralized relief portals and auto-vetting	Malaysia's PRIHATIN SME Grant Portal

6.4. Limitations and Future Research

While the study offers important insights, several limitations must be acknowledged. First, the sample was skewed toward urban SMEs, particularly in Lagos and Abuja, which may limit the generalizability of findings to rural or informal enterprises. Second, the cross-sectional design captures a single phase of post-pandemic recovery (2023–2024), preventing analysis of longer-term outcomes or business survival trajectories.

Future research should pursue longitudinal studies to track SME recovery over a five-to-ten-year period. Such research could evaluate the sustainability of adaptive strategies like digital transformation or workforce restructuring. Additionally, gender-disaggregated analysis is warranted. The experiences of female-led SMEs during the pandemic remain underexplored in Nigeria and elsewhere, despite early evidence suggesting disproportionate impact.

This proposed model would integrate three pillars—policy agility, digital readiness, and stakeholder collaboration—as key enablers of SME resilience in future crises.

7. Conclusion

This study explored the multidimensional impact of the COVID-19 pandemic on small and medium-sized enterprises (SMEs) in Nigeria, focusing on their financial performance, resilience strategies, and engagement with government support programs. By integrating empirical evidence with the Smith Model framework, the research offers a comprehensive analysis of how institutional, structural, and technological factors shaped SME outcomes during the crisis. The findings underscore significant policy gaps and highlight digital transformation as a critical resilience pathway.

Key Findings

The analysis revealed a pronounced sectoral polarization in outcomes. ICT and e-commerce SMEs recorded revenue growth of 12%, supported by digital agility and scalable business models. In contrast, traditional sectors such as hospitality and manufacturing experienced steep revenue declines of 72% and 58%, respectively. These losses were largely attributed to rigid operational structures, supply chain disruptions, and their limited capacity for digital adaptation.

The study also uncovered policy-practice disconnects. Government interventions, including the Central Bank of

Nigeria's ₦50 billion credit facility, were hindered by bureaucratic inefficiencies, urban bias, and rigid eligibility requirements. As a result, only 24% of SMEs successfully accessed financial support. This exclusionary trend mirrors broader challenges observed in other developing economies, where the most vulnerable enterprises often remain underserved.

Crucially, digital transformation emerged as a lifeline for many firms. SMEs that adopted digital tools—such as e-commerce platforms, social media marketing, and cloud-based operations—demonstrated a moderate negative correlation with revenue decline ($r = -0.45$). These results reinforce global evidence that technological readiness enhances business continuity during external shocks.

Theoretical Contributions

Applying the Smith Model illuminated the gap between idealized policy design and practical implementation in crisis contexts. The model's components—idealized policies, executing agencies, target groups, and the policy environment—proved instrumental in diagnosing systemic weaknesses in Nigeria's policy ecosystem. The findings advocate for an adapted version of the model that integrates “shock responsiveness,” recognizing the need for real-time policy flexibility under volatile conditions.

This research contributes to the global discourse on crisis management by contextualizing SME vulnerabilities within Nigeria's macroeconomic instability, infrastructural deficits, and institutional fragmentation. It offers a grounded perspective on how theoretical models can be extended to reflect crisis-specific dynamics in low- and middle-income countries.

Limitations

Despite its contributions, the study has several limitations. The geographic focus was skewed toward urban SMEs, particularly in Lagos and Abuja, which may limit the generalizability of the findings to rural or informal enterprises. Additionally, the cross-sectional design captures a specific phase of recovery (2023–2024), restricting insights into long-term trends or sustainability of adaptations.

Future Research

Future studies should consider longitudinal approaches that track SME recovery over a 5 to 10-year horizon to evaluate the long-term effectiveness of resilience strategies. In addition, gender-disaggregated research is needed to assess how female-led SMEs navigated the crisis, especially given early indications of disproportionate impacts on women-owned businesses. Further inquiry into rural and informal sector dynamics would also enhance policy relevance.

Recommendations

For Policymakers

Enhance financial inclusion: Simplify loan application procedures and eliminate collateral requirements for micro and small businesses.

Example: Kenya's M-Pesa model demonstrates how mobile-based financial tools can expand rural access.

Invest in digital infrastructure: Subsidize broadband ex-

pansion and offer tech training, particularly in underserved areas.

Example: India's Digital India Initiative provides a scalable blueprint.

Strengthen inter-agency coordination: Establish a centralized relief portal to integrate federal and state programs, streamlining access and reducing redundancy.

Table 7. Summary of Policy Recommendations.

Stakeholder	Action	Expected Outcome
Polymakers	Centralized SME relief portal	Reduced bureaucratic delays
Polymakers	Rural broadband and tech subsidies	Increased digital inclusion
Polymakers	Collateral-free micro-loans	Wider financial access

For SMEs

Adopt hybrid business models: Blend traditional operations with digital tools such as online sales, virtual consultations, and mobile payments.

Diversify revenue streams: Explore adjacent markets or value-added services. For example, hospitality SMEs can pivot to food delivery or virtual event hosting.

For Researchers

Investigate marginalized groups: Prioritize research on women-led, rural, and informal SMEs to inform inclusive policy design.

Develop crisis-readiness metrics: Create indices to evaluate SME preparedness and institutional resilience before and during shocks.

Final Remarks

The COVID-19 pandemic served as a stress test for Nigeria's SME sector, revealing deep-seated vulnerabilities but also clear opportunities for reform. Digital agility, institutional coordination, and inclusive policy design emerged as critical pillars for resilience. This study offers a practical roadmap for strengthening SME ecosystems in crisis-prone environments. By bridging the gap between policy and practice and investing in adaptive capacity, Nigeria—and other developing economies—can build more resilient, future-ready enterprises.

Abbreviations

COVID-19	Coronavirus Disease 2019
SMEs	Small and Medium-sized Enterprise
MSME	Micro, Small and Medium Enterprises

SMEDAN	Small and Medium Enterprise Development Agency of Nigeria
CBN	Central Bank of Nigeria
NBS	National Bureau of Statistics

Ethics Declarations

It should be noted that due to the lack of an institutional ethics board to approve the studies, it was not possible to apply for Research Ethics Board (REB) approval. There are no institutional ethics boards for approval of participation in the countries where the study was conducted. This academic restriction resulted in an exemption from the requirement for ethical approval for the study. In this study, information was collected through online and paper questionnaires and then processed anonymously. The respondents did not leave any confidential information to the study authors. All respondents who answered the questionnaire gave informed consent that their answers would be used to conduct and publish the study. Respondents under the age of 18 did not participate in the study.

Author Contributions

Odenigbo Paul Nwangbo: Conceptualization, Data curation, Formal Analysis, Funding acquisition, Project administration, RWriting – original draft

Li Qigeng: Project administration, Resources, Supervision, Writing – review & editing

Sackey Naa Adjeley: Data curation, Formal Analysis, Validation, Visualization, Writing – review & editing

Nnadi Kelechi John: Formal Analysis, Software, Writing – review & editing

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Data Availability Statement

The datasets analyzed during the current study are available from the corresponding author on reasonable request. Requests for data access will be considered to ensure confidentiality and compliance with ethical guidelines.

Conflicts of Interest

The authors declare no competing interests.

Appendix

Table 8. COVID-19's Impact on Small and Medium-Sized Businesses: A Composite Analysis.

Variables	Difficulty accessing inputs	Low Sales	Difficulty in ex- porting	Difficulty in im- porting	Reduced Invest- ment
State in high Case	0.849*** (0.0693)	0.640*** (0.0683)	0.775*** (0.0447)	0.541*** (0.0605)	0.00702 (0.0668)
Partial lockdown	0.361*** (0.0063)	0.064*** (0.0063)	0.329*** (0.0417)	0.839*** (0.0566)	0.183*** (0.0575)
Total lockdown	0.577*** (0.0627)	0.425*** (0.0548)	0.912*** (0.0412)	0.0175*** (0.0577)	0.0317*** (0.0602)
Observations	301	301	301	301	301

Table 9. COVID-19's Impact on Small and Medium-Sized Businesses: Agriculture and Food-Related.

Variables	Difficulty accessing inputs	Low Sales	Difficulty in ex- porting	Difficulty in im- porting	Reduced Invest- ment
State in high Case	0.152 (0.142)	-0.0545 (0.112)	0.777*** (0.0927)	0.133 (0.0105)	0.165 (0.110)
Partial lockdown	0.109*** (0.008)	0.056 (0.104)	-0.123 (0.0920)	0.119*** (0.101)	0.119 (0.109)
Total lockdown	0.132*** (0.008)	0.120 (0.105)	-0.0953 (0.0872)	0.131*** (0.001)	-0.0649 (0.119)
Observations	76	76	76	76	76

Table 10. COVID-19's Impact on Small and Medium-Sized Businesses: Unrelated to Agriculture.

Variables	Difficulty accessing inputs	Low Sales	Difficulty in ex- porting	Difficulty in im- porting	Reduced Invest- ment
State in high Case	0.138* (0.0816)	0.516*** (0.008)	0.288*** (0.0481)	0.326*** (0.045)	0.684*** (0.0813)
Partial lockdown	0.615*** (0.0765)	0.722*** (0.0723)	0.160*** (0.044)	0.119*** (0.059)	0.202*** (0.0684)
Total lockdown	0.644*** (0.0750)	0.708*** (0.007)	0.623*** (0.026)	0.772*** (0.094)	0.139*** (0.0713)
Observations	225	225	225	225	225

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 11. Factors Influencing Coping Strategies to COVID-19 Impacts: Pooled.

Variable	Online sales	Customized new products	Increased marketing efficiency
Age_num	-0.00892*** (0.00321)	0.000386 (0.00228)	0.000394 (0.00271)
Edu_yrs	0.198*** (0.0128)	0.358*** (0.00922)	0.119 (0.0107)
Severe impact	-0.863*** (0.064)	0.0488 (0.125)	0.00981 (0.163)
Slight Impact	0.784*** (0.167)	-0.0163 (0.120)	0.127 (0.170)
State with high case	0.148** (0.0684)	-0.0117 (0.0572)	0.139** (0.0561)
Partial lockdown	0.127** (0.0632)	0.0220 (0.0497)	0.184*** (0.0568)
Total lockdown	0.047*** (0.0653)	0.426*** (0.0509)	0.185*** (0.0607)
Stimulus	0.448*** (0.0654)	0.880*** (0.0542)	0.132** (0.0626)
Observation	301	301	301

Table 12. Elements Affecting Coping Mechanisms for COVID-19 Effects: Agriculture and Food.

Variable	Online sales	Customized new products	Increased marketing efficiency
Age_num	-0.2112* (0.00599)	0.00146 (0.00362)	0.000179 (0.00558)
Edu_yrs	0.0764** (0.0313)	0.0030 (0.0207)	0.0115 (0.0197)
Severe impact	-0.607** (0.287)	0.214 (0.227)	0.0482 (0.331)
Slight Impact	-0.429*** (0.0282)	-0.186 (0.178)	-0.0262 (0.329)
State with high case	0.0450** (0.129)	-0.0666 (0.103)	0.257** (0.105)
Partial lockdown	0.174*** (0.015)	0.600*** (0.0837)	0.302*** (0.115)
Total lockdown	-0.530*** (0.037)	-0.320*** (0.0812)	-0.270* (0.141)
Stimulus	0.672*** (0.109)	0.112*** (0.0083)	0.0752 (0.123)

Variable	Online sales	Customized new products	Increased marketing efficiency
Observation	76	76	76

Table 13. Elements Affecting Coping Mechanisms for COVID-19 Effects: Non-farming.

Variable	Online sales	Customized new products	Increased marketing efficiency
Age_num	-0.00677* (0.00386)	0.00658** (0.00291)	-0.00112 (0.00330)
Edu_yrs	0.710*** (0.0158)	0.229*** (0.001)	0.827*** (0.0136)
Severe impact	0.197*** (0.002)	-0.445 (0.072)	0.0131 (0.200)
Slight Impact	0.221 (0.209)	-0.00751 (0.168)	0.189 (0.213)
State with high case	0.175** (0.0808)	-0.00663 (0.0687)	0.102 (0.0675)
Partial lockdown	0.190** (0.0756)	0.680*** (0.0596)	0.136** (0.0675)
Total lockdown	-0.329*** (0.0773)	-0.733*** (0.0611)	-0.154** (0.0690)
Stimulus	0.177*** (0.008)	0.0577 (0.0650)	0.151** (0.0758)
Observation	225	225	225

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

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