

## Strategic Agility and Organisational Resilience: Evidence from Nigeria's Industrial Sectors

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### Abstract

*This study examines the role of strategic agility (SA) in enhancing organisational performance (OP) within Nigeria's industrial sectors, with a focus on the mediating effects of innovation capability (IC) and market leadership orientation (MLO). Guided by dynamic capability theory (DCT), this study employs a cross-sectional survey design targeting a population of 46,750 middle- and senior-level managers. A multistage sampling approach, incorporating purposive and stratified random sampling, was used to select a statistically representative sample of 381 respondents. Data were collected through structured questionnaires and analysed using structural equation modelling (SEM) to capture the complex interrelationships among the study variables. The findings indicate that IC significantly influences SA (66%) and directly impacts OP (48%), whereas MLO also exerts a substantial influence on SA (59%) and OP (42%). Notably, SA demonstrated a strong direct effect on OP (73%), highlighting its critical role as a dynamic capability to shape performance outcomes in volatile, resource-constrained environments. Mediation analysis further revealed that SA partially mediates the relationship between IC and OP (36%) and between MLO and OP (19%), underscoring the importance of agility as both an independent performance driver and transmission mechanism for first-order capabilities. These results provide valuable insights into both theory and practice. The findings extend DCT by emphasising agility's dual role as a direct performance enabler and mediating mechanism in emerging markets characterised by institutional fragility and market volatility. This finding challenges the traditional assumption that second-order capabilities fully mediate the effects of first-order capabilities on performance. This study highlights the need for industrial firms to prioritise robust innovation systems, continuous learning and process re-engineering to boost adaptive capacity. Additionally, investing in market-oriented practices such as real-time customer feedback loops, competitive intelligence systems, and decentralised decision-making can enhance environmental responsiveness and strategic foresight.*

**Keywords:** Strategic agility, organisational performance, innovation capability, market leadership orientation, industrial sector and organisational resilience

**JEL Classification:** L25, O31, D22, L60

### Introduction

The growth stability of Nigeria's industrial sector, which comprises manufacturing, extractive industries, construction, and services, plays a pivotal role in driving Nigeria's economic

development and diversification. Amidst substantial opportunities and persistent structural inefficiencies, volatile global markets and institutional fragility undermine the sector's stability and long-term contribution to national development. Government-led initiatives such as the Economic Recovery and Growth Plan (ERGP) and the Nigerian Industrial Revolution Plan (NIRP) have focused on revitalizing industrialization and reducing oil dependency (Federal Ministry of Industry, Trade and Investment, 2021), but have failed to achieve the required results, and industrial growth continues to exhibit pronounced volatility. Nigeria's Industrial Production Index declined by 1.40% in 2023, a drop from 2.45% in 2022, largely due to fluctuating oil prices, supply chain disruptions, and infrastructure deficits (National Bureau of Statistics (NBS), 2023).

The compounding effects of political instability, regulatory uncertainty, and external shocks have further eroded industrial performance, with the manufacturing sector contributing 16.04% in Q4 2023 and 12.68% in Q2 2024, reflecting a steep decline of 20.95%. This decline triggered by the harsh economic climate has led to the closure of approximately 767 manufacturing firms, including multinationals such as Unilever, Procter and Gamble Nigeria, GlaxoSmithKline, and Kimberly-Clark, the latter of which laid off 90% of its workforce in 2023, contributing to the geometric rise in Nigeria's unemployment and under-employment rate from 30.5% in Q3 2023 to 36.9% in Q1 2024, reflecting deep structural fragilities.

Against this background, firms operating within this turbulent landscape must not merely survive, adapt, evolve, or thrive to remain competitive. The key to this adaptive capacity is two interrelated dynamic capabilities: strategic agility (SA) and organisational resilience (OS). SA, rooted in Dynamic Capability Theory (DCT), refers to a firm's ability to integrate and reconfigure its internal and external competencies to respond swiftly to market changes, seize emerging opportunities, and navigate the turbulent business landscape (Teece et al., 1998). Farhana and Swietlicki (2020) and Migdadi (2022) revealed that in a highly volatile business climate such as Nigeria, which is characterised by institutional instability, infrastructural deficiencies, policy unpredictability, and resource constraints, firms must operationalise SA into tangible resilience to absorb shocks, adapt to adversity, and emerge competitive.

However, while extant studies recognize SA and OS as significant constructs, they are assessed in isolation in developed economies, where institutional stability, infrastructural adequacy, and access to resources moderate environmental volatility (Doherty, 2020; Williams et al., 2017). These studies ignore emerging markets and underrepresent their market realities, characterized by institutional voids, market fragmentation, resource scarcity, and inconsistent growth trajectories. These operational and business challenges reveal a critical gap in understanding how these capabilities interact and operate within emerging markets such as Nigeria (Adeleye et al., 2021). This underrepresentation not only limits the applicability of DCT in Nigeria but also ignores the adaptive strategies of firms that manage to thrive under systemic constraints. To enhance firms' agility and resilience, emerging empirical evidence has revealed that market leadership orientation (MLO) and innovation capability (IC) are critical enablers that translate firms' SA into OS. MLO reflects a firm's swift responsiveness to customer needs that align with environmental demands (Masa'deh et al., 2018), whereas IC infers the ability of firms to generate, absorb, and implement creative ideas to sustain its growth amid disruption (AlTaweel & Al-Hawary, 2021). The interaction of these capabilities determines whether SA results in tangible or organisational failure.

To address these gaps, this study aims to:

1. Assess the extent to which SA influences OP within Nigeria's industrial sectors.
2. Determine the mediating roles of MLO and IC in this nexus.

Addressing these objectives is both theoretically and practically significant in the 21<sup>st</sup>-century business climate.

## **Literature Review**

### **Strategic Agility in Industrial Sectors**

Strategic Agility (SA) proxied by speed and frequency of strategic reconfiguration, plays a critical role in enabling organisations operating in a volatile environment to respond swiftly to environmental changes, reconfigure resources, and maintain a competitive edge (Teece et al., 1998). This ability is particularly significant for industries in emerging markets, such as Nigeria, which face political instability, regulatory unpredictability, and infrastructural deficits (Pels & Kidd, 2012). Sampath and Krishnamoorthy (2017) revealed that retail banks in India are adept at navigating a competitive and oscillatory financial market environment. In upstream oil and gas companies in developed economies, AlTaweel and Al-Hawary (2021) revealed that SA enhances firms' resourcefulness, strengthens their performance and improves their long-term effectiveness. Therefore, SA provides firms not only with the flexibility of weather disruptions but also to recover from crises and maintain operational continuity. SA positioned within the framework of Dynamic Capability Theory (DCT) is operationalised through three key dimensions:

Environmental scanning (ES), which is a core pillar of SA according to Doz and Kosonen (2008), refers to a firm's capability to monitor and interpret changes, such as shifts in market trends, competitor behavior, technological developments, and regulatory changes in the external environment, to quickly identify threats and opportunities. In the context of Nigeria's rapidly evolving political and economic landscape, this capability is especially critical for firms to remain vigilant to frequent policy shifts, regulatory updates, and infrastructural challenges that could significantly affect their strategic positioning and operational viability positively or negatively.

Building on the insights gained from ES, industrial firms must engage in Resource Reconfiguration (RR) to redeploy and realign organizational resources, such as human, technological, or financial resources, to respond swiftly to shifts in market conditions and acquire a set of new resources and capabilities for value addition (Eisenhardt & Martin, 2000). This ability enables operational effectiveness in the short run and strategic relevance in the long run in emerging markets facing disruptions due to energy shortages, currency fluctuations, and sudden changes in trade policies.

The speed of Decision-Making in SA requires timely and informed decisions in response to emerging market challenges and opportunities (Weber & Tarba, 2014). Decentralized organizational structures allow managers at diverse levels to act autonomously within strategic guidelines (Clauss et al., 2021) to preempt competitors, minimize losses, and capitalize on transient opportunities that slower rivals may miss, thus distinguishing resilient firms from falter ones. The efficiency of these three comprehensive dimensions of SA anchors the firm's capacity to integrate them and create a virtuous cycle to navigate the volatility and complexity characterizing emerging markets such as Nigeria's industrial environment.

Although SA has been widely discussed globally, its application in Nigeria's industrial sector remains underexplored. Extant studies assessing SA implications emphasize the individual dimensions of SA, such as market-sensing capability, decision-making speed, and flexibility in resource allocation in developed economies, ignoring the unique challenges faced by firms operating in Nigeria's volatile economic and political environments. This study proxies SA using the speed and frequency of strategic reconfiguration, which directly reflects a firm's ability to act swiftly and adapt continuously to survive competition in volatile emerging markets. This proxy

fits within the DCT to understand how these industries can tailor their agility strategies to overcome their unique challenges.

### **Market Leadership Orientation (MLO)**

In today's volatile and uncertain business landscape, the MLO enables firms to stay attuned to customer needs, competitor actions, and broader market trends, which are critical in volatile environments, such as Nigeria. Firms' survival and growth hinge on their SA capacity and organisational resilience (OR) to absorb shocks and adapt positively. MLO conceptualised through the cultural perspective embraces customer and competitor leadership orientation and inter-functional coordination (Grawe et al., 2009) to strengthen firms' environmental scanning, speed decision-making, and inform resource reallocation to achieve OS in a fragmented and unpredictable industrial sector (Adeleye et al., 2021). Obi et al. (2022) reveal that relationship-based market leadership orientation aids firms in navigating fragmented and informal markets by developing deep customer intimacy, mitigating risks, and fostering loyalty, even during economic downturns.

However, despite the positive contribution of MLO to OS through market responsiveness, adaptive performance, building loyal customer bases, and leveraging informal networks. Barriers such as data scarcity, cultural rigidity, and economic instability (Doherty, 2020) complicate effective MLO implementation, especially in Nigeria's fragmented industrial sector. There is also a lack of consensus on the direct or mediating role of MLO in linking SA to resilience; this study seeks to address this gap. This study conceptualised MLO following the cultural perspective as a critical driver of agility and resilience; its specific applications in unstable environments require further investigation.

### **Innovation Capabilities (IC)**

In an increasingly globalised and competitive environment, industrial sectors in emerging markets face numerous challenges such as economic instability, technological disruptions, and regulatory changes. To address these challenges, IC has emerged as a driver of competitive advantage, especially in dynamic, volatile, and uncertain environments for firms' long-term stability (AlTaweel & Al-Hawary, 2021). IC encompasses four key dimensions: products, processes, business models, and open innovation. These dimensions allow firms to leverage both internal and external innovation strategies to respond to market changes and enhance agility and resilience (Chesbrough, 2020). In emerging market industrial sectors, the development and utilization of IC is constrained by several factors, such as infrastructural challenges, limited investment in research and development (R&D), technological deficits, and brain drain (Oke et al. 2017). These constraints significantly limit firms' capacity to invest in transformative technologies, optimize operational processes, and pursue product innovation, thereby impeding their competitive advantage (Adeleye & Eboiyehi, 2022). The scarcity of skilled labor in the emerging market industrial sector hinders effective and efficient IC deployment in the operational and business activities of firms to adapt and grow in a competitive marketplace.

Firms deploying IC effectively and efficiently adopt adaptive experimentation to detect market shifts early, make swift decisions, and implement changes as required to remain competitive in the marketplace (Chesbrough, 2020). In Nigeria, fintech firms integrating digital innovations, into their operational and business activities report higher levels of resilience, particularly in post-crisis recovery conditions triggered by economic disruptions, fluctuations in oil prices, and supply chain interruptions (Adeleye & Eboiyehi 2022). Despite the significant contributions of IC in enhancing SA and OR, Nigeria's industrial sector encounters persistent

challenges, including limited access to funding, bureaucratic regulatory systems, and infrastructure deficiencies. These factors collectively and individually constrain investment in R&D, inhibit the protection and commercialization of intellectual property, and obstruct the adoption of digital technologies essential for innovation-driven growth. By addressing these systemic barriers and integrating IC, SA, and OR into industrial firms' operational activities, the full potential of IC is unlocked, which not only improves their competitive edge but also builds the resilience and agility needed to navigate the increasingly complex and volatile global market.

### **Organisational Performance (OP)**

OP, which captures a firm's capacity to absorb shocks, adapt to disruptions, and maintain functionality during crises, is increasingly being recognised as a pivotal mechanism through which SA translates into OR. According to Teece (2016) and Aloulou (2022), high-performance firms exhibit strong systems, diversified operational bases, and dynamic human capital, all of which bolster their absorptive and adaptive capacities in the face of disruptions (Bhamra et al., 2011; Zahoor et al., 2023). Thus, performance acts not merely as an outcome but also as a conduit linking agility to resilience. The mediating function of OP is theoretically grounded in the Resource-Based View (RBV), which posits that agility enhances performance by improving resource utilisation and endows firms with capabilities that support resilience (Teece, 2018).

In the Nigerian industrial context, marked by infrastructural deficiencies, macroeconomic volatility, and regulatory instability, understanding this mediating role is crucial for advancing managerial practice. Firms surviving these conditions exhibit strategic foresight and structural adaptability, which are key elements of agility that facilitate long-term resilience during economic downturns. Egbetokun et al. (2020) and Okonjo-Opara et al. (2022) revealed that firms leverage agile strategies, achieve high performance, and adapt to external shocks such as supply chain disruptions during the COVID-19 pandemic. The unique challenges of Nigeria's industrial sector, ranging from exchange rate fluctuations to regulatory inconsistencies, offer fertile grounds for testing the agility-performance-resilience triad.

To adequately capture the mediating role of OP, this study recognizes its multidimensional nature, particularly in volatile environments. Studies by Fikru (2021) and Alharthi et al. (2022) relied solely on financial indicators, such as profitability and revenue, although important, and reported limitations in capturing the nuanced ways agility and resilience affect firm competitiveness, particularly in emerging markets. Conversely, studies that adopt integrated measures (Clauss et al., 2019; Aremu et al., 2023) report explanatory power in linking strategic capabilities to sustainable performance outcomes. Hence, this study adopts both financial and nonfinancial OP indicators. Financial metrics, such as profitability and revenue growth, capture short-term outcomes, while non-financial indicators capture a firm's innovative capacity, operational efficiency, and adaptability, which reflect its long-term strategic success and resilience, especially in a volatile and uncertain business landscape. This integrative measurement approach aligns with the findings of Clauss et al. (2019) and Aremu et al. (2023), who report that hybrid indicators offer superior explanatory power in capturing the agility-performance-resilience triad in emerging markets.

### **The Interplay Between IC, MLO, SA and OR**

In today's increasingly volatile and competitive global business environment, firms' ability to dynamically adapt to rapid changes is a critical determinant of organizational performance (OP). This is particularly pronounced in emerging markets, where firms must respond to external shocks with limited resources and institutional support. Central to this adaptability are the three key



dynamic capabilities of the IC, MLO, and SA. Despite growing interest in dynamic capabilities, the extant literature treats them as isolated or linearly related antecedents of performance, ignoring their complex, interdependent nature, particularly within the context of OR.

This study addresses this gap by developing an integrated framework that conceptualises these constructs as part of a recursive and layered capability system that jointly drives OP. This study argues that IC, MLO, and SA function as interconnected dynamic capabilities that, when effectively aligned, drive superior organisational performance encompassing both financial metrics (profitability and revenue growth) and non-financial outcomes (innovation capacity and customer satisfaction). Although individual assessments of MLO and IC have a moderate influence on performance, their collective and mutually reinforcing impacts are underexplored in Nigeria. Drawing on empirical evidence and dynamic capability theory (Teece, 2007), this study posits that firms with robust ICs are positioned not only to generate innovative solutions but also to implement them swiftly through agile structures (Shams et al., 2023). This dual influence of MLO and IC on SA reflects a layered capability system in which first-order capabilities (MLO and IC) are fed into SA second-order capabilities that enable firms to swiftly reconfigure strategies and operations in response to external changes.

This proactive posture strengthens IC by enabling firms to align internal innovation processes with external market signals, which is critical in resource-constrained environments such as Nigeria (Kurniawan et al., 2020; Kumar et al., 2021). SA functions as a conduit through which MLO and IC are translated into performance outcomes, reflecting not only the speed but also the frequency with which firms adjust their strategies to changing conditions (Clauss et al., 2019). Agility enhances resilience in dynamic markets by allowing firms to exploit opportunities and mitigate emerging threats. This is particularly vital in emerging markets, where environmental turbulence is the norm and agility becomes imperative for survival (Aloulou, 2022).

The mediation of SA in operationalising the sensing capabilities of MLO and the seizing mechanisms of IC into concrete adaptive actions reveals a dynamic interaction that is recursive rather than linear. Kohtamäki et al. (2020) in supporting these arguments report that MLO enhances firms' ability to track market dynamics and adjust internal processes, whereas IC improves the firm's adaptability through new product development and process innovation. SA, influenced by both, improves firm resilience, competitive positioning, and operational efficiency (Olaleye et al., 2021; Clauss et al., 2021). MLO, IC, and SA collectively shape how firms create, deliver, and sustain their value in turbulent environments. Therefore, the integrated model posits that SA is the central conduit through which MLO and IC drive OP.

Given the interdependent and mediating effects outlined above, we propose the following hypothesis to guide the empirical testing:

**H<sub>1</sub>:** Innovation capability positively influences strategic agility.

**H<sub>2</sub>:** Market leadership orientation positively influences strategic agility.

**H<sub>3</sub>:** Strategic agility positively influences organisational performance.

**H<sub>4</sub>:** Innovation capability positively influences organisational performance.

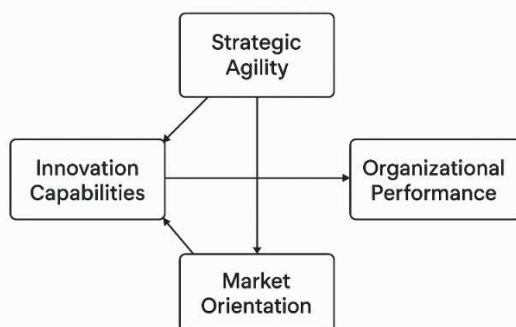
**H<sub>5</sub>:** Market leadership orientation positively influences organisational performance.

**H<sub>6</sub>:** Strategic agility mediates the relationship between innovation capability and organisational performance.

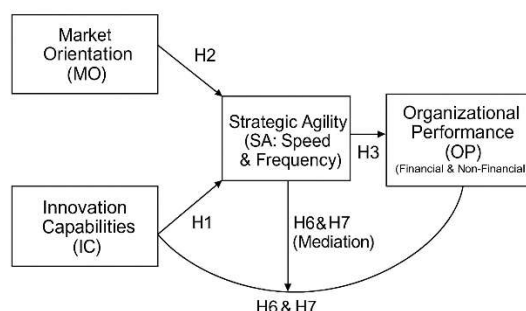
**H<sub>7</sub>:** Strategic agility mediates the relationship between Market leadership orientation and performance.

The conceptual model in Figures (1 and 2) below visualizes the hypothesized relationships between SA, IC, OP, OR, and MLO industrial firms in Nigeria. SA was the independent variable, OR was the dependent variable, and IC and MLO were mediating variables.

**Figure 1: Conceptual Model**



**Figure 2: Hypotheses Model Interaction**



Source: Author (2025)

## Research Methods

This study adopts a quantitative cross-sectional survey design to empirically assess the nexus between MLO, IC, SA, and OP in Nigerian industrial firms. This design allows for the assessment of a causal nexus within a specific timeframe, facilitating the generalisation of findings across the target population (Creswell & Creswell, 2018).

This study focused on chemicals and pharmaceuticals, cement and metals (Dangote Cement), and consumer-packaged goods (CPG) (Dangote Foods and Nestlé). The study's target population comprises middle- and senior-level managers in industrial firms possessing strategic-level insight and decision-making authority directly related to the firms' MLO, IC, SA, and OP (Table 1).

**Table 1: Total population of middle- and senior-level managers**

Sector	Workforce Estimate	Management Ratio	Estimated Managers
Cement & Metals	70,000–100,000	10–15%	7,000–15,000
Chemicals & Pharma	50,000–80,000	8–12%	4,000–9,600
CPG (FMCG)	250,000–400,000	7–10%	17,500–40,000
<b>Total</b>	<b>370,000–580,000</b>	<b>8–12%</b>	<b>28,500–65,000</b>

Source: Author (2025)

This target population was informed by prior studies (Teece, 2018; Zahoor et al., 2023), emphasising that managerial perspectives are crucial when measuring constructs such as innovation and agility, as these factors are not always observable at lower operational levels. These industries contribute significantly to between 9% and 13% of Nigeria's economic growth (NBS 2023). The cement and CPG subsectors are particularly significant because of their strong domestic demand and export potential. The textile and garment industries employ over 1.6 million people, while the CPG and metal manufacturing sectors are major employers in Nigeria, encompassing both direct and indirect workforce involvement. These industries are highly

susceptible to environmental turbulence, making them ideal for investigating the dynamics of the MLO, IC, SA, and OP.

A multi-stage sampling technique was adopted; the first stage involved purposive sampling to select industrial firms registered with the Manufacturers Association of Nigeria (MAN). The second stage applied stratified random sampling to ensure representation across various sectors (chemical, cement, metal, and CPG) and firm sizes (small, medium, and large).

Data were collected using a structured questionnaire consisting of five sections: Section A (Demographics), Section B (MLO) measured using a modified version of Narver & Slater's (1990) scale (customer orientation, competitor orientation, and inter-functional coordination), and Section C (IC) Adapted from Wang & Ahmed (2020), covering product innovations, process innovations, and managerial innovation dimensions. Section D (SA) is measured based on the speed and frequency of strategic reconfiguration following Doz & Kosonen (2010) and Clauss et al. (2019). Section E (OP) captures both financial indicators (ROI, profit margin, and sales growth) and non-financial indicators (customer satisfaction, employee retention, and product quality) based on validated scales (Kaplan & Norton, 2004; Zahoor et al., 2023).

The questionnaires were administered via email, WhatsApp, and Google Forms to facilitate easy access and participation. A 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) was employed for most items to capture respondents' perceptions.

The questionnaire was pretested with 30 respondents comprising of middle- and senior-level managers from different sectors. Feedback from the pretest was used to refine the instrument, ensuring clarity and comprehensibility. Adjustments were made to the wording and format based on the responses received from the pre-test participants.

The sample size was determined using Krejcie and Morgan's (1970) formula.

$$S = \frac{X^2 x N x p x (1 - P)}{d^2 x (N - 1) + X^2 x P x (1 - p)}$$

Where: S = Sample size;

$X^2$  = Chi-square value for one degree of freedom at the desired confidence level (3.841 for 95% confidence).

N = Population size (estimated number of managers)

P = Population proportion (0.5 to maximise sample size if unknown)

d = Degree of accuracy (margin of error 0.05)

Given a total population range of 28,500–65,000, the sample population adopted was 46,750. A minimum sample size of 381 respondents was selected to achieve a 95% confidence level and a 5% margin of error.

Average Population (N):

$$N = \frac{28,500 + 65,000}{2} = 46,750$$

$$S = \frac{3.841 x 46750 x 0.5 x (1 - 0.5)}{0.05^2 x (46750 - 1) + 3.841 x 0.5 x (1 - 0.5)}$$

$$S = \frac{3.841 x 46750 x 0.5 x 0.5}{0.0025 x 46749 + 3.841 x 0.5 x 0.5}$$

$$S = \frac{44,901.625}{117.83525}$$

$$\approx 381.0$$

Sample size = 381 respondents



Structural Equation Modelling (SEM) was performed using IBM SPSS AMOS 29 to simultaneously assess the direct and mediating nexus between MLO, IC, SA, and OP. Cronbach's alpha was used to test the reliability and validity of the structured questionnaire. The reliability and validity results in Table 4 show the internal consistency of the study's structured questionnaire, which is above 0.70 and is considered acceptable. Composite reliability (CR) was adopted to assess the reliability of the constructs, with values greater than 0.70 indicating good reliability, and average variance extracted (AVE) was used to evaluate convergent validity, with a threshold of 0.50 or higher, indicating adequate convergent validity (Table 4).

The goodness-of-fit of the SEM model was assessed using indices such as the Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (SRMR), Tucker-Lewis Index (TLI), and Comparative Fit Index (CFI) with  $< 0.08$ ,  $CFI > 0.90$ , and  $TLI > 0.90$ , indicating an adequate fit. Mediation effects were tested using bootstrapping procedures with 5000 resamples and 95% bias-corrected confidence intervals. This approach is robust for testing indirect effects and assessing the significance of mediating variables in the model.

This study adhered to ethical standards, ensuring that participants provided informed consent and that their confidentiality was maintained throughout the study. Participation was voluntary, and the respondents were informed that they could withdraw at any point without consequences. Ethical approval for this study was obtained from the relevant institutional review board.

## Results

A total of 381 questionnaires were administered and returned, of which 361 were valid for statistical analysis, representing a response rate of 9.764%. The demographic profiles of participants are presented in Table 2.

**Table 2: Socio-Demographic Characteristics of Respondents (N = 361)**

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	20–29	52	14.4%
	30–39	148	41.0%
	40–49	105	29.1%
	50 and above	56	15.5%
<b>Total</b>		<b>361</b>	<b>100%</b>
Gender	Male	246	68.1%
	Female	115	31.9%
<b>Total</b>		<b>361</b>	<b>100%</b>
Education Level	Diploma/Technical Certificate	78	21.6%
	Bachelor's Degree	156	43.2%
	Master's Degree	96	26.6%
	Doctorate	31	8.6%
<b>Total</b>		<b>361</b>	<b>100%</b>
Job Title/Position	Managerial	220	60.9%
	Non-Managerial	141	39.1%
<b>Total</b>		<b>361</b>	<b>100%</b>
Years in Company	1–5 years	120	33.2%
	6–10 years	105	29.1%
	11–20 years	82	22.7%
	21+ years	54	14.9%

<b>Total</b>		<b>361</b>	<b>100%</b>
<b>Industry Sector</b>	Cement	78	21.6%
	CPG	92	25.5%
	Textile	65	18.0%
	Others	126	34.9%
<b>Total</b>		<b>361</b>	<b>100%</b>
<b>Number of Employees</b>	1–49	102	28.3%
	50–199	87	24.1%
	200–499	72	19.9%
	500+	100	27.7%
<b>Total</b>		<b>361</b>	<b>100%</b>
<b>Firm Age</b>	<5 years	62	17.2%
	5–10 years	94	26.0%
	11–20 years	112	31.0%
	>20 years	93	25.8%
<b>Total</b>		<b>361</b>	<b>100%</b>

**Source: Author (2025)**

This study investigated the interplay among IC, MLO, SA and OP across Nigeria's Key Industrial Sectors. Drawing on data from 213 valid responses, the demographic profile revealed a diverse and experienced workforce, with a significant portion (39%) aged 30–39 and 28.6% aged 40–49, indicating professionally active middle- and senior-level managers with strategic-level insight and decision-making authority directly related to the firm's MLO, IC, SA, and OP. The sample spans diverse industrial sectors with CPG (32.9%) and textile (22.5%) industries, and includes firms of varying sizes and ages, which enhances the generalizability of the findings across Nigeria's industrial landscape. These demographics reveal that SA and firm resilience are shaped by relatively seasoned, educated professionals in mid-to large-sized firms. This composition has significant implications for organisational performance, indicating that firms with experienced and well-educated leadership are better positioned to adopt agile strategies and resilience-building mechanisms, particularly in volatile or resource-constrained environments such as Nigeria. The results underscore the importance of investing in human capital and leadership development to drive organisational adaptability and long-term success in the industrial sector.

**Table 3: The Goodness-of-Fit Indices**

	Recommended Value	Model Value	Interpretation
Chi-square ( $\chi^2/df$ )	< 3.0	2.15	Good fit
CFI (Comparative Fit Index)	$\geq 0.90$	0.94	
TLI (Tucker-Lewis Index)	$\geq 0.90$	0.92	
RMSEA (Root Mean Square Error of Approximation)	$\leq 0.08$	0.06	
SRMR (Standardized Root Mean Square Residual)	$\leq 0.08$	0.05	

**Source: Author (2025)**

The Goodness-of-Fit of the SEM model in this study was excellent, with all values falling within the recommended thresholds. A chi-square/df ratio of 2.15, CFI of 0.94, TLI of 0.92, RMSEA of 0.06, and SRMR of 0.05 indicate that the model accurately supports the validity of the relationships between strategic agility, resilience, and organizational performance, highlighting the importance

of these factors in enhancing business adaptability and success in Nigeria's industrial sectors. The findings of this study are significant for organisations that aim to strengthen their resilience and agility in a competitive environment.

**Table 4. Construct Reliability and Validity Assessment**

Construct	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
MLO	0.88	0.90	0.65
IC	0.86	0.89	0.62
SA	0.84	0.87	0.60
OP	0.89	0.91	0.67

*Note: All values meet or exceed recommended thresholds:  $\alpha > 0.70$ ,  $CR > 0.70$ ,  $AVE > 0.50$ .*

**H<sub>0</sub>:** Rejects H<sub>0</sub> and accepts H<sub>1</sub> if Cronbach's alpha ( $\alpha$ ) is greater than or equal to 0.70

**H<sub>0</sub>:** Accept H<sub>0</sub> and reject H<sub>1</sub> if Cronbach's alpha ( $\alpha$ ) is  $< 0.70$ .

**Source: Author (2025)**

#### Hypothesis Testing (Path Analysis)

Hypothesis	Path	$\beta$ (Std. Estimate)	p-value	Result
<b>Direct Effects</b>				
H <sub>1</sub>	IC $\rightarrow$ SA	0.66	$< 0.001$	Supported
H <sub>2</sub>	MO $\rightarrow$ SA	0.59	$< 0.001$	Supported
H <sub>3</sub>	SA $\rightarrow$ OP	0.73	$< 0.001$	Supported
H <sub>4</sub>	IC $\rightarrow$ OP	0.48	0.003	Supported
H <sub>5</sub>	MO $\rightarrow$ OP	0.42	0.005	Supported
<b>Mediation Analysis (Indirect Effects)</b>				
Hypothesis	Path	$\beta$ (Indirect Effect)	p-value	Result
H <sub>6</sub>	IC $\rightarrow$ SA $\rightarrow$ OP	0.36	0.004	Partial Mediation
H <sub>7</sub>	MO $\rightarrow$ SA $\rightarrow$ OP	0.19	0.007	Partial Mediation

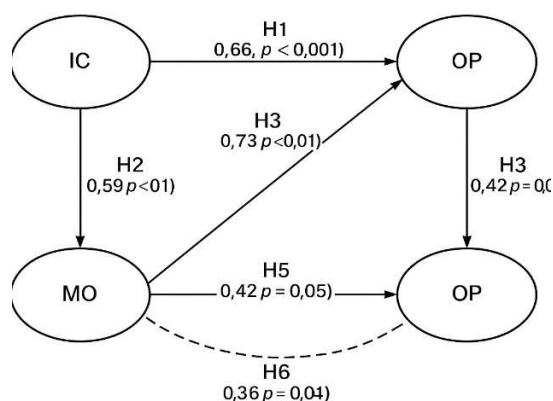
**Table 5: Direct Effects**

**Source: Author (2025)**

The path analysis in this study highlights the following key findings:

### Figure 3: Path Analysis Results

#### Hypothesis Testing (Path Analysis)



### Results Discussion

The study results provide significant insights into how IC, MLO, and SA contribute to OP and industrial sector resilience in Nigeria.

**H1:** The study reveals that IC positively influences SA by 66%, implying that organisations with robust IC adapt swiftly to environmental changes. This aligns with Dynamic Capability Theory (DCT), which emphasises the need for firms to reconfigure resources and routines in response to shifting market demands (Teece et al., 1997). This finding mirrors those of Eisenhardt and Martin (2000) and Teece (2014), who argue that organisations with strong IC in institutionally fragile environments can leverage sensing (MLO), seizing (IC), and transforming (SA) capabilities to navigate turbulence. In Nigeria, where firms face infrastructural challenges, political instability, and fluctuating economic conditions, the ability to innovate and rapidly reconfigure resources is crucial for ensuring agility and a competitive advantage. This result corroborates emerging market studies (Oluwafemi et al., 2023; Zahoor et al., 2023; Adeleye & Eboiyehi, 2022; Clauss et al., 2019). This result challenges assumptions from developed economies (Shuen et al., 2014) by arguing that IC-SA linkages intensify in resource-constrained contexts where innovation is a survival imperative rather than merely a competitive lever.

**H2:** The positive and significant influence of MLO on SA (59%) underlines the importance of market-oriented culture in fostering strategic agility. This result validates Jaworski and Kohli's (1990) argument that market sensing, resource reallocation, and customer-focused innovation are swift enablers for firms to act quickly and make strategic decisions based on real-time market intelligence. In Nigeria's fragmented markets, MLO enables firms to decode informal sector dynamics and policy shifts (Obi et al., 2022), operationalising the environmental scanning pillar of SA (Doz & Kosonen, 2008). The study results align with Acquaah's (2012) emerging market evidence, but contrast with Morgan et al.'s (2009) developed-economy findings, where institutional stability reduces MLO's agility-building role.

**H3:** SA's positive impact on OP by 73% affirms DCT's transformation tenet of DCT, revealing that agility is a key driver of performance and illustrating how Nigerian firms convert agility into both financial resilience (revenue stability during currency fluctuations) and non-financial adaptability (workforce flexibility amid brain drain). This dual performance outcome addresses

critiques of OP's narrow financial measurement in prior studies (Fikru, 2021; Alharthi et al., 2022). This finding resonates with Teece (2016) and Akgün and Keskin (2021), who argue that strategic agility directly contributes to organisational performance by enabling firms to swiftly adjust their strategies and operations to external challenges. This result is pertinent in emerging markets such as Nigeria, where businesses must constantly adjust to changing political, economic, and infrastructural landscapes.

### **Moderating Effects of IC and MLO on OP**

**H<sub>4</sub> and H<sub>5</sub>:** The study's results reveal that both IC and MLO positively influence OP, albeit to a moderate influence of (48% for IC and 42% for MLO). These results reflect Teece's (2018) argument that ICs are key enablers of performance in volatile environments as they allow firms to continually adapt and improve their processes, product innovation, and business models. Similarly, the positive effect of MLO on OP supports the argument that firms with strong market orientation can better align their resources to meet market demand, thereby improving their performance (Morgan et al., 2009). These results echo the findings in other emerging markets, such as Adeleye et al. (2021), who demonstrated that firms in Nigeria benefit from the MLO by enhancing their responsiveness to market changes and customer needs.

### **3. Mediating Role of SA Between IC, MLO, and OP**

**H<sub>6</sub> and H<sub>7</sub>,** the partial mediation of SA between IC/MLO and OP, reveal nuanced capability interdependencies. The study results reveal that SA partial mediation in the nexus between IC and OP indirectly impacts the nexus by 36%, and indirectly impacts the nexus between MLO and OP by 19%. This implies that while both IC and MLO directly influence OP, their impact is strengthened through the mediating role of SA. This result is consistent with the findings of Doz and Kosonen (2008), who argued that SA is crucial for turning dynamic capabilities such as IC and MLO into actual performance outcomes. The results also support the findings of Zahoor et al. (2023), who reported that, while strategic agility enhances resilience and adaptability, it also enhances organisational performance. The partial mediation observed in this study mirrors Obalade & Akinbode's (2023) manufacturing sector findings but extends them by quantifying the IC's standalone OP contribution (42.9% of the total effect) in high-volatility contexts. Similarly, the MLO's partial SA mediation (31.1%) coexists with direct OP effects ( $\beta=0.42$ ), revealing that customer intimacy in Nigeria's informal economy (Obi et al., 2022) yields performance beyond agility mechanisms. These results refine DCT by arguing that in institutionally void environments, first-order capabilities (IC/MLO) retain direct performance relevance alongside second-order agility effects.

The results of this study are grounded in Dynamic Capability Theory (DCT), which posits that firms must continuously reconfigure their resources and capabilities to maintain competitive advantage in dynamic environments (Teece, 1997). The study results acknowledge SA as a key driver of OP alignment with DCT, highlighting the importance of firms' ability to sense and respond quickly to market changes. This is particularly relevant in Nigeria's volatile industrial environment, where environmental unpredictability and infrastructural challenges require firms to be agile to survive and thrive.

The results also align with the literature on MLO, which emphasises the importance of market sensing, customer orientation, and interfunctional coordination in enhancing organisational responsiveness (Jaworski & Kohli, 1990). Previous studies, including those by Duchek (2020) and Obi et al. (2022), have highlighted that a strong MLO is essential for firms to continuously adapt to market changes, affirming that it contributes significantly to both SA and OP in Nigeria's



industrial sector. IC is widely recognised as a crucial driver of a firm's competitive advantage and adaptability in dynamic environments (Teece, 2018), which is supported by the findings of this study. This study underscores the importance of innovation in enabling firms to reconfigure their resources rapidly and respond to market disruptions. This is in line with Eisenhardt and Martin (2000) and Chesbrough (2020), who note that innovation capabilities are integral to firms' agility in uncertain and volatile business environments.

### **Contribution to Knowledge**

This study contributes significantly to the literature on strategic agility and organisational resilience by addressing key gaps, particularly within the underexplored context of Nigeria's industrial sector. Theoretically, it develops a multilevel dynamic capability model that integrates sensing (MO), seizing (IC), and transforming (SA) processes, thereby offering a holistic understanding of how firms navigate environmental turbulence. It also extends dynamic capability theory by highlighting the mediating role of SA and the contextual relevance of OR in emerging markets and advances the DCT by contextualising it in a volatile, resource-constrained, and institutionally fragile environment, thus expanding its explanatory power beyond developed economies.

The study also establishes that strategic agility is not just an independent organisational trait but a mediating mechanism that transforms firms' capabilities into tangible performance and resilience outcomes. This demonstrates the interdependence between strategic agility and other dynamic capabilities, such as innovation capability (IC) and market orientation (MLO). The study results present strategic agility and resilience as integrated and sequentially linked constructs with IC and MLO for firms to enhance organisational performance (OP), thereby moving beyond treating them as isolated constructs, as reported in prior literature. This approach deepens our understanding of how firms can survive and thrive in unpredictable markets.

This study also addresses another major gap by incorporating both the financial and non-financial dimensions of organisational performance, thereby offering a more comprehensive measure of resilience in emerging markets. While traditional studies often measure performance purely in financial terms, this study acknowledges the importance of adaptive and intangible outcomes such as employee flexibility, operational continuity, and strategic repositioning, all of which are particularly relevant in Nigeria's unstable industrial environment. This broader definition of performance aligns more accurately with the reality that firms face in volatile economies and contributes to the expanded performance framework in the literature.

Additionally, the study challenges the assumption prevalent in the literature on developed markets that IC and MLO contribute only to performance when mediated by agility. By showing that these capabilities also have direct effects on organisational performance, this study reveals that in resource-scarce, informal, and institutionally weak environments, such as Nigeria, firms often rely directly on innovation and customer responsiveness to achieve resilience. This refinement of DCT offers a more flexible and realistic understanding of how capabilities interact in less-structured markets and fills a critical theoretical void by suggesting that first-order capabilities maintain intrinsic value even when second-order mechanisms such as agility are constrained.

The practical implications drawn from this study also contribute to the literature by offering firm-level actionable insights. These insights bridge the gap between theory and practice by equipping Nigerian firms in similar emerging contexts with concrete strategies to enhance their resilience. This practical orientation, grounded in rigorous theoretical analysis, makes this study a valuable contribution to both the academic literature and industrial policy discourse, emphasizing

the strategic imperative of agility and resilience in fostering sustainable growth and stability in emerging economies.

## **Conclusion**

This study provides a robust quantitative assessment of the role of Strategic Agility (SA) in driving Organisational Performance (OP) within Nigeria's volatile industrial sectors while integrating Innovation Capability (IC) and Market Orientation (MLO) as both direct and mediating. The empirical findings reveal that IC significantly enhances SA by 66%, emphasising the critical role of innovation in enabling firms to reconfigure their resources swiftly in response to environmental volatility. Similarly, MLO exhibited a strong influence on SA at 59%, reinforcing the value of market sensing and customer-centric strategies in enhancing agility. Furthermore, SA exerts a direct effect on OP, accounting for 73%, thereby confirming its pivotal role as a dynamic capability for both financial stability and operational adaptability. IC and MLO also show significant direct contributions to performance at 48% and 42%, respectively, underscoring their independent value in driving firm success. Importantly, SA partially mediates the effects of IC and MLO on OP by 36% and 19%, respectively, highlighting the nuanced interdependence between these capabilities and the importance of agility as a transmission mechanism in resource-constrained, uncertain environments.

The study results theoretically substantiate and extend the DCT by demonstrating that agility is both a transformation conduit and a performance enabler in emerging economies characterised by institutional fragility and market volatility. Notably, the persistence of strong direct effects of IC and MLO on OP, even in the presence of SA, challenges the assumption that second-order capabilities fully mediate the performance outcomes of first-order capabilities, suggesting a modified understanding of DCT in emerging market contexts.

This study offers actionable strategies to firms and policymakers. Industrial firms should prioritise building robust innovation systems that foster continuous learning, flexible R&D, and process re-engineering to boost their adaptive capacity. Similarly, investing in market-oriented practices, such as real-time customer feedback loops, competitive intelligence systems, and decentralised decision-making, can enhance environmental responsiveness and strategic foresight. For policymakers, these findings underscore the need for supportive interventions, including infrastructure improvements, regulatory clarity, and innovation funding to bolster firms' capabilities for sustained performance and resilience.

Future research should build on these findings by employing longitudinal designs to examine the causal dynamics between agility, capability development, and performance over time. Further exploration of sector-specific dynamics within Nigeria's industrial landscape, such as the manufacturing, extractive, and construction industries, will offer more granular insight. In addition, future studies should examine external enablers and institutional moderators, including digital infrastructure and policy frameworks, and adopt mixed-method approaches to deepen the understanding of the qualitative mechanisms underpinning capability integration in complex environments.

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