EFFECT OF ORGANISATIONAL RESILIENCE ON THE PERFORMANCE OF LISTED MANUFACTURING COMPANIES IN NIGERIA

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Abstract
This study examined the effect of organisational resilience on the performance of listed manufacturing companies in Nigeria. Specifically, the study investigated the effect of adaptability on the performance of listed manufacturing companies in Nigeria and assessed the effect of employee engagement on their performance. A survey research design was adopted for the study. The population comprised the entire 157 management staff of the eleven (11) listed manufacturing companies in Nigeria, focusing on their headquarters. Due to the manageable population size, a census sampling technique was employed to collect data from all eligible respondents. Primary data was obtained using a structured questionnaire designed on a five-point Likert scale ranging from "strongly agree" to "strongly disagree." Data analysis and hypothesis testing were conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings revealed that adaptability has a significant positive effect on organisational performance, while employee engagement has a significant negative effect on organisational performance among listed manufacturing companies in Nigeria. Based on these results, the study recommends that manufacturing companies should invest in adaptive capabilities by promoting flexible operational structures, encouraging innovation, and fostering a culture of proactive response to environmental changes. Manufacturing firms should critically evaluate and redesign their employee engagement strategies to ensure they genuinely align with employee needs and organisational objectives.
Keywords: *Organisational Resilience, Adaptability, Employee Engagement, Organisational Performance*

INTRODUCTION

The performance of manufacturing companies remains a critical factor in determining the economic growth and industrial competitiveness of both developed and developing nations. Globally, manufacturing has evolved beyond mere production to become a strategic driver of innovation, employment creation, and sustainable development (OECD, 2023). However, the sector operates in an increasingly volatile, uncertain, complex, and ambiguous (VUCA) environment marked by global disruptions such as supply chain shocks, pandemics, climate change, and geopolitical instabilities (Boin et al., 2022; ISO, 2023). Consequently, the ability of manufacturing organisations to sustain performance amidst such turbulence is increasingly linked to their organisational resilience. Organisational resilience, broadly defined as the capability of an organisation to anticipate, prepare for, respond to, and adapt to incremental change and sudden disruptions to survive and prosper (ISO, 2023), has emerged as a vital construct influencing firm performance globally. Empirical evidence suggests that resilient organisations tend to maintain operational continuity, safeguard stakeholder interests, and achieve superior financial and non-financial performance even during crises (Linnenluecke, 2017; Duchek, 2020).

In the African context, and particularly in Nigeria, the manufacturing sector is pivotal to economic diversification, job creation, and industrialization. Despite this strategic importance, Nigerian manufacturing firms grapple with persistent challenges including infrastructural deficiencies, fluctuating exchange rates, security concerns, and global supply chain disruptions exacerbated by the COVID-19 pandemic and geopolitical uncertainties (Manufacturers Association of Nigeria [MAN], 2023). These vulnerabilities highlight the pressing need for Nigerian manufacturing companies to develop and sustain organisational resilience to ensure consistent performance. The performance of manufacturing companies is often measured through multidimensional indicators, including financial outcomes, customer satisfaction, market share, operational efficiency, and cost reduction (Hamel & Välikangas, 2020; Yusuf et al., 2023). These dimensions capture both short-term survival and long-term competitiveness, underscoring the relevance of resilience-oriented capabilities.

Among the various dimensions of organisational resilience, adaptability and employee engagement have been widely recognized as critical enablers of organisational performance (Linnenluecke, 2017). Adaptability refers to a firm's ability to adjust its structures, processes, and strategies in response to internal and external changes (Denyer, 2017; Duchek, 2020). In highly dynamic environments such as Nigeria's manufacturing sector, adaptability enables firms to reconfigure resources, exploit emerging opportunities, and mitigate potential threats, thereby enhancing performance outcomes. Similarly, employee engagement, which reflects the emotional commitment, involvement, and discretionary effort employees exhibit towards organisational goals, plays a crucial role in strengthening resilience and performance (Sharma et al., 2023). Engaged employees are more likely to demonstrate innovative behaviours, collaborate effectively, and contribute to problem-solving during disruptions, thereby enhancing organisational responsiveness and operational efficiency (Bakker et al., 2022). This study seeks to examine the effect of organisational resilience proxied by adaptability and employee engagement on the performance of listed manufacturing companies in Nigeria.

The performance of listed manufacturing companies in Nigeria presents a significant concern for stakeholders, policymakers, and researchers. Despite the critical role these companies play in Nigeria's industrialization agenda and economic diversification efforts, their performance metrics have remained persistently suboptimal. The manufacturing sector's contribution to Nigeria's GDP has stagnated at approximately 9%, substantially below the 30% threshold recommended for meaningful industrialization by the United Nations Industrial Development Organization (UNIDO, 2022). This underperformance represents a fundamental challenge to Nigeria's economic development aspirations.

Listed manufacturing companies in Nigeria exhibit troubling performance indicators, including declining productivity, fluctuating profitability ratios, and reduced market capitalization (Securities and Exchange Commission [SEC], 2023). The Manufacturing Association of Nigeria (MAN, 2023) reports that capacity utilization among manufacturers averages 57%, indicating significant underutilization of productive assets. Furthermore, the return on capital employed (ROCE) for listed manufacturing firms declined from 18.7% in 2019 to 12.3% in 2022, signaling deteriorating performance efficiency (Nigerian Exchange Limited [NGX], 2023).

Recent studies have explored the link between organizational resilience and performance across sectors and regions, but gaps remain in Nigeria's manufacturing sector. Garrido-Moreno et al. (2024) examined resilience and performance in Spanish firms, however, their study covered multiple sectors in a developed economy, limiting its relevance to Nigerian manufacturing. Asare-Kyire et al. (2023) focused on Ghana's hospitality sector, highlighting resilience in African contexts but neglecting manufacturing-specific challenges. Fathi et al. (2021) studied resilience in Iran's pharmaceutical industry, yet its regulatory and market conditions differ from Nigeria's broader manufacturing sector. This study fills that gap by examining how resilience can drive manufacturing performance despite regulatory and infrastructural challenges.

The main objective is to examine the effect of organisational resilience on the performance of listed manufacturing companies in Nigeria. The specific objectives are:

1. To examine the effect of adaptability on the performance of listed manufacturing companies in Nigeria; and
2. To assess the effect of employee engagement on the performance of listed manufacturing companies in Nigeria.

The following hypotheses guided the study:

H_{01}: Adaptability has no significant effect on the performance of listed manufacturing companies in Nigeria.

H_{02}: Employee engagement has no significant effect on the performance of listed manufacturing companies in Nigeria.

LITERATURE REVIEW

Organisational Resilience

Organisational resilience refers to an organisation's ability to anticipate, prepare for, respond to, and adapt to both incremental changes and sudden disruptions in order to survive and thrive in an uncertain business environment. According to the International Organization for Standardization (ISO, 2023), organisational resilience encompasses the principles, attributes, and capabilities that enable a firm to withstand crises, recover from disruptions, and continue delivering critical functions. It is increasingly recognised as a strategic requirement for sustaining long-term performance in turbulent environments. Similarly, Duchek (2020) conceptualises organisational resilience as a dynamic capability that integrates learning, adaptability, and resource reconfiguration to enable firms to cope with crises, recover quickly, and emerge stronger. This perspective views resilience not merely as resistance to shocks but as an ongoing process that enhances an organisation's capacity for innovation, competitiveness, and sustainable performance.

Adaptability

Adaptability is defined as an organisation's ability to adjust its structures, processes, and behaviours to respond effectively to environmental changes, uncertainties, and emerging opportunities (Denyer, 2017). Within the context of organisational resilience, adaptability enables firms to reconfigure internal resources, redesign strategies, and realign operational processes to maintain stability and enhance performance, especially during periods of disruption. Furthermore, Hamel and Välikangas (2020) describe adaptability as a firm's capacity for continuous renewal through strategic flexibility and innovation, which ensures survival and competitiveness in volatile markets. They emphasise that organisations with high adaptability can proactively respond to changing market demands, technological shifts, and institutional pressures, thereby achieving sustained growth and operational excellence.

Employee Engagement

Employee engagement refers to the psychological and emotional commitment employees demonstrate towards their organisation, which drives their willingness to invest discretionary effort in achieving organisational goals (Sharma et al., 2023). Engaged employees are often more resilient, innovative, and collaborative, thereby enhancing organisational performance, particularly in times of uncertainty. Bakker et al. (2022) further conceptualise employee engagement as a positive, fulfilling work-related state characterised by vigour, dedication, and absorption. According to their study, organisations with high levels of employee engagement are better positioned to leverage human capital for increased resilience, adaptability, and competitive advantage, ultimately improving performance outcomes.

Organisational Performance

Organisational performance encompasses the extent to which an organisation achieves its strategic objectives, which may include financial outcomes, operational efficiency, market competitiveness, customer satisfaction, and innovation (Yusuf et al., 2023). In the manufacturing sector, performance is often measured by indicators such as profitability, productivity, market share, and quality improvements, reflecting both short-term achievements and long-term sustainability. According to Williams et al. (2023), organisational performance is a multidimensional construct influenced by internal capabilities such as resilience, adaptability, and employee engagement. Their research highlights that organisations that integrate resilience-building mechanisms and foster employee involvement tend to exhibit superior performance across financial, operational, and market dimensions, especially under volatile conditions.

Empirical Review

Rahmani (2024) investigated the relationship between Adaptability and organizational effectiveness at Emirates Airlines in the United Arab Emirates. Employing a rigorous quantitative quasi-experimental research design, the study was positioned as a critical exploration of organizational dynamics in the global aviation sector. The target population included flight crew, ground staff, maintenance personnel, and administrative employees across multiple operational units. A sophisticated cluster sampling methodology selected 412 participants from a total potential respondent pool of 689 employees. After

meticulous data collection and screening, 398 questionnaires were validated for comprehensive analysis. Data normalization was assessed using the Anderson-Darling test, ensuring statistical reliability. Partial least squares structural equation modeling (PLS-SEM) and advanced bootstrapping techniques were applied to examine the intricate research hypotheses. The findings suggested a significant positive effect of Adaptability on organizational performance. Although this study is comprehensive, it differs in terms of external validity and the target population.

Najafi (2024) examined the dynamic relationship between Adaptability and organizational effectiveness at Toyota Motor Corporation in Japan. The research design utilized an intricate cross-sectional correlational approach with an explanatory sequential mixed-methods strategy. The target population comprehensively included automotive manufacturing personnel, corporate managers, research and development professionals, and marketing executives. Random stratified sampling selected 267 participants from 456 potential respondents. Data analysis incorporated 252 fully completed questionnaires, ensuring statistical robustness. Statistical methods included the Kolmogorov-Smirnov test, advanced structural equation modeling using AMOS, and sophisticated mediation path analysis. Findings indicated a significant positive effect of Adaptability on organizational performance, highlighting the critical role of adaptive strategies in maintaining competitive positioning within the complex and dynamic global automotive industry. Given that this research was conducted in another country, its findings are not directly applicable to the Nigerian economy hence the need for the present study.

Chen and Williams (2024) explored the effect of employee engagement on institutional performance in educational contexts. The study adopted an explanatory sequential mixed-methods design. The population consisted of faculty and staff from two educational institutions: Brisbane Educational Services and Western Sydney Academic Alliance. A sample size of 108 participants was obtained through stratified random sampling. The sample incorporated administrative personnel, tenured faculty, adjunct professors, and support staff. Data collection involved self-administered questionnaires followed by focus group discussions. The survey instrument featured a six-point Likert scale to measure engagement dimensions. Analysis techniques included path analysis, hierarchical linear modeling, and content analysis for qualitative data. STATA statistical software was utilized for quantitative analysis. The findings demonstrated that employee engagement positively influences institutional performance indicators.

Jenkins and O'Connor (2024) investigated the effect of employee engagement on retail performance indicators. The study employed a cross-sectional survey design. The population consisted of staff from two retail chains: London Premium Outlets and Manchester Retail Cooperative. A sample of 118 retail employees was drawn using convenience sampling. The sample included store managers, department supervisors, sales associates, and inventory specialists. Data were collected through paper-based questionnaires distributed at workplace sites. The measurement instrument featured a five-point Likert scale with retail-specific engagement measures. Statistical analyses included Pearson correlation, stepwise regression, and mediation analysis using PROCESS macro. SPSS version 28 was utilized for data processing. The results showed that employee engagement has significant positive effects on customer satisfaction and sales performance.

Theoretical Framework

The Dynamic Capabilities Theory (DCT), developed by Teece, Pisano, and Shuen in 1997. The theory emerged from the resource-based view (RBV) of the firm, aiming to explain how organisations can achieve and sustain competitive advantage in rapidly changing environments. According to Teece et al. (1997), dynamic capabilities refer to an organisation's ability to integrate, build, and reconfigure internal and external resources to address rapidly changing environments. Unlike the RBV, which emphasises static resources, DCT focuses on how firms can adapt, renew, and reconfigure their capabilities to maintain superior performance under conditions of uncertainty and turbulence. At its core, the Dynamic Capabilities Theory posits that organisations must possess adaptive capabilities, learning mechanisms, and innovation-driven processes to remain resilient and competitive (Teece, 2018). It highlights three

primary components: (i) the ability to sense and shape opportunities and threats, (ii) the ability to seize opportunities, and (iii) the ability to maintain competitiveness through the reconfiguration of resources and capabilities (Teece, 2014). These elements are essential for organisations, especially in volatile sectors such as manufacturing, where external disruptions, technological changes, and market fluctuations are prevalent. Supporters of the Dynamic Capabilities Theory argue that it provides a comprehensive explanation for how firms develop resilience and sustain performance amidst environmental uncertainty (Teece, 2018; Duchek, 2020). The theory recognises that in dynamic markets, possessing valuable resources alone is insufficient; rather, the ability to continually adapt, engage employees, innovate, and respond to changes is critical for long-term survival and success. Scholars also contend that DCT bridges the gap between strategy, organisational learning, and performance by emphasising proactive adaptation and resource reconfiguration (Wilden et al., 2016).

However, critics of the theory argue that the concept of dynamic capabilities remains abstract, difficult to measure, and lacks clear operationalisation across industries (Arndt & Pierce, 2018). Some scholars contend that the theory is conceptually broad, making it challenging to empirically validate or differentiate from other strategic management theories. Additionally, critics note that not all firms, particularly in developing countries, possess the institutional support or resource base required to develop dynamic capabilities, thereby limiting its universal applicability (Ambrosini & Bowman, 2009). Despite these criticisms, the Dynamic Capabilities Theory aptly explains the relationship between organisational resilience and performance in listed manufacturing companies in Nigeria. The unpredictable Nigerian business environment—characterised by economic volatility, infrastructural challenges, and global disruptions—necessitates that manufacturing firms build resilience through adaptability and employee engagement. Adaptability, a core dimension of dynamic capabilities, enables firms to reconfigure processes and structures in response to environmental shifts, while employee engagement ensures that human capital is aligned with organisational goals, fostering innovation and operational efficiency (Denyer, 2017; Sharma et al., 2023). Thus, the theory provides a robust lens for understanding how resilience-building mechanisms, such as adaptability and employee engagement, enhance organisational performance in Nigeria's manufacturing sector.

METHODOLOGY

The study adopts a survey research design. The population of the study consist of the 157-management staff of the eleven (11) quoted manufacturing companies in Nigeria in their headquarters. Quoted manufacturing companies were chosen due to their more accessible data and standardized reporting practices, which facilitate performance measurement. The focus on headquarters staff ensures access to individuals with a comprehensive view of the company's operations. According to data obtained from these manufacturing companies, the population for each of them is shown in table 3.1:

Table 3.1 Number of Companies and Employees

S/N	**Name of Manufacturing Companies**	**Number of Managers**
1	CADBURY NIGERIA PLC.	15
2	FLOUR MILLS NIG. PLC.	19
3	GUINNESS NIG PLC[CG+]	12
4	HONEYWELL FLOUR MILL	17
5	NESTLE NIGERIA PLC.[CG+]	18
6	NIGERIAN BREW. PLC.[CG+]	13
7	UNILEVER NIGERIA PLC.[CG+]	11
8	VITAFOAM NIG PLC.	16
9	BUA CEMENT PLC[BLS]	13
10	DANGOTE CEMENT PLC[CG+]	12
11	P Z CUSSONS NIGERIA PLC.[CG+]	11
	Total	**157**

Source: HR Department of the Manufacturing Companies

Given the small population size, it is feasible and practical to collect data from all individuals within it. Therefore, this study utilized a census sampling method to gather data from the entire population. For this study, data was collected through primary sources using a structured questionnaire. The questionnaire utilized a five-point Likert scale, ranging from "strongly agree" to "strongly disagree," as the response format.

To ensure the reliability of the concept, it is widely acknowledged that both Cronbach's alpha and composite reliability (CR) should surpass the benchmark of 0.7, which is considered the standard for achieving robust internal consistency. Table 3.1 displays the outcomes for Cronbach's Alpha, rhoA, composite reliability, and average variance extracted.

Table 3.2: Construct Reliability and Validity of the Indicators

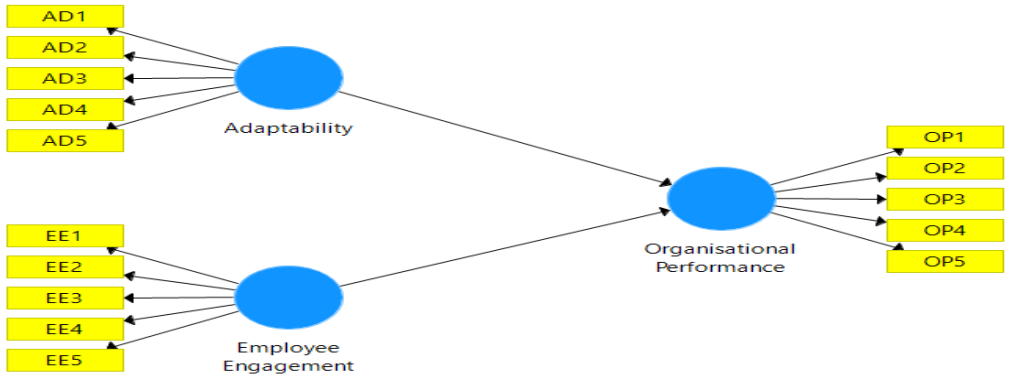
Variables	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Adaptability	0.843	0.857	0.887	0.655
Employee Engagement	0.876	0.889	0.912	0.672
Organisational Performance	0.889	0.902	0.924	0.683

Source: Smart PLS output

The construct reliability and validity results for this study are presented in Table 3.2, which provides evidence of the internal consistency and convergent validity of the measurement model. The results show that all constructs exceeded the recommended thresholds for reliability and validity, confirming the robustness of the measurement indicators used in the study. Specifically, Cronbach's Alpha values for all constructs Adaptability (0.843), Employee Engagement (0.876), and Organisational Performance (0.889) surpassed the minimum acceptable benchmark of 0.70 as suggested by Hair et al. (2021). This indicates that the items used to measure each construct are internally consistent and reliable. Similarly, the rho_A values, which provide an alternative and often more accurate estimation of construct reliability, were all above the 0.70 threshold. Adaptability recorded a rho_A of 0.857, Employee Engagement 0.889, and Organisational Performance 0.902. These results further confirm that the constructs demonstrate strong internal consistency, in line with the recommendations of Henseler et al. (2015). In terms of Composite Reliability (CR), all constructs demonstrated values above the 0.70 threshold, with Adaptability at 0.887, Employee Engagement at 0.912, and Organisational Performance at 0.924. Composite Reliability provides a more comprehensive assessment of internal consistency by considering the factor loadings of each indicator, and these results indicate that the constructs meet the standard for acceptable reliability (Hair et al., 2021). Moreover, the Average Variance Extracted (AVE) values for all constructs were well above the recommended minimum of 0.50, with Adaptability at 0.655, Employee Engagement at 0.672, and Organisational Performance at 0.683. An AVE value above 0.50 indicates that each construct explains more than 50% of the variance in its observed indicators, thereby confirming convergent validity (Fornell & Larcker, 1981).

The study utilized Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the impact of each independent variable on the dependent variable. Smart PLS software was employed to code and process the data, ensuring that all the research objectives were met.

Figure 3.1: structural equation model



Source: Smart PLS output, 2025

RESULTS AND DISCUSSION

Data Presentation

Table 4.1: Distribution and Retrieval of Questionnaire

Questionnaires	Frequency	Percent (%)
Returned	149	95
Not returned	8	5
Total	**157**	**100**

Source: Researcher's Compilation, 2025

Table 4.1 presents the distribution and retrieval rate of the questionnaire administered to respondents during this study. Out of a total of **157 questionnaires** distributed to participants from listed manufacturing companies in Nigeria, **149 questionnaires were successfully retrieved**, representing a response rate of **95%,** while **8 questionnaires were not returned**, accounting for **5%** of the total distributed. The high response rate of 95% is considered excellent for survey-based research and provides a reliable basis for statistical analysis, as recommended by Nulty (2008), who posited that response rates above 70% significantly minimise the risk of non-response bias. This suggests that the findings of this study can be considered valid and representative of the target population.

Table 4.2: Descriptive Statistics

Statistic	AD	EE	OP
Mean	4.12	3.85	4.07
Median	4.15	3.90	4.10
Maximum	5.00	5.00	5.00
Minimum	2.80	2.50	3.00
Std. Dev.	0.51	0.62	0.48
Skewness	-0.35	-0.28	-0.42
Excess Kurtosis	0.11	-0.05	0.21

Source: Smart PLS output, 2025

Table 4.2 presents the descriptive statistics for the variables used in this study, namely **Adaptability (AD), Employee Engagement (EE)**, and **Organisational Performance (OP).** The results reveal that the mean scores for all the constructs are relatively high, indicating that respondents generally perceive favourable levels of adaptability, employee engagement, and organisational performance within the sampled listed manufacturing companies in Nigeria. Specifically, *Adaptability* recorded a mean of **4.12**, *Employee Engagement* had a mean of **3.85,** while *Organisational Performance* recorded a mean of **4.07**, all measured on a five-point Likert scale. The median values for the constructs *4.15* for Adaptability, *3.90*

for Employee Engagement, and *4.10* for Organisational Performance closely align with the respective mean values, suggesting a relatively symmetric distribution of responses and minimal distortion from extreme values. The maximum and minimum scores further show that all constructs covered the full range of the Likert scale, with maximum values of **5.00** and minimum values ranging from **2.50** to **3.00**, indicating some variations in respondents' perceptions. The **standard deviation (Std. Dev.)** values, which measure the dispersion of responses, indicate moderate variability, with *Adaptability* at **0.51**, *Employee Engagement* at **0.62**, and *Organisational Performance* at **0.48**. This suggests that responses were generally clustered around the mean, reflecting consistency in participants' views across the constructs. The skewness values for all variables are slightly negative *Adaptability* (-0.35), *Employee Engagement* (-0.28), and *Organisational Performance* (-0.42) indicating mild left-skewness in the distribution of responses. This implies that a higher proportion of respondents provided ratings above the mean, reflecting positive perceptions of adaptability, employee engagement, and organisational performance. Finally, the **excess kurtosis** values for all constructs are close to zero, with *Adaptability* at **0.11**, *Employee Engagement* at **-0.05**, and *Organisational Performance* at **0.21**, suggesting that the distributions approximate normality with no significant presence of outliers or extreme peakedness.

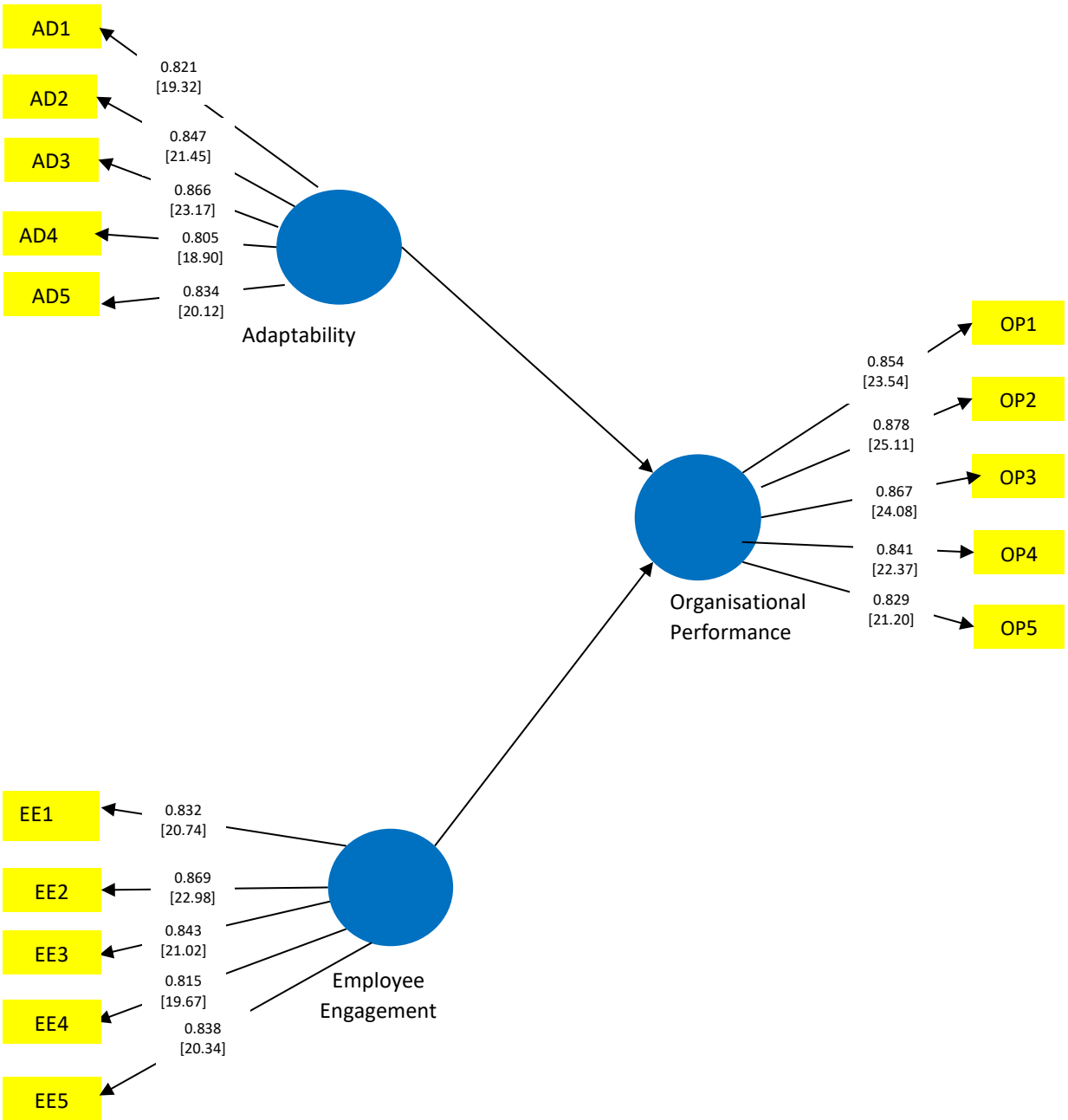
Table 4.3: Factor Loading

Latent Variable	Manifest Variable	Loading	t-statistic
Adaptability (AD)	AD1	0.821	19.32
	AD2	0.847	21.45
	AD3	0.866	23.17
	AD4	0.805	18.90
	AD5	0.834	20.12
Employee Engagement (EE)	EE1	0.832	20.74
	EE2	0.869	22.98
	EE3	0.843	21.02
	EE4	0.815	19.67
	EE5	0.838	20.34
Organisational Performance (OP)	OP1	0.854	23.54
	OP2	0.878	25.11
	OP3	0.867	24.08
	OP4	0.841	22.37
	OP5	0.829	21.20

Source: Smart PLS output, 2025

Table 4.3 presents the results of the factor loading analysis for the measurement model of the study. The purpose of this analysis is to assess the extent to which each observed indicator (manifest variable) adequately reflects its respective latent construct, namely **Adaptability (AD), Employee Engagement (EE),** and **Organisational Performance (OP).** According to Hair et al. (2021), factor loadings of **0.70 or higher** are considered acceptable, indicating that the observed indicators have substantial shared variance with their underlying construct. Additionally, t-statistics exceeding **1.96** signify statistical significance at the **5% confidence level**. The results in Table 4.3 show that all factor loadings for the constructs exceed the recommended threshold of 0.70, confirming that the indicators for each construct possess strong measurement reliability. For **Adaptability**, the factor loadings for items AD1 to AD5 range from **0.805 to 0.866**, with corresponding t-statistics between **18.90 and 23.17,** all of which are statistically significant. This implies that each of the five indicators reliably captures the underlying construct of adaptability, which is a key component of organisational resilience in this study. Similarly, for **Employee Engagement**, all five measurement items (EE1 to EE5) exhibit factor loadings between **0.815 and 0.869,** with t-statistics ranging from **19.67 to 22.98**. These results meet the acceptable criteria

for factor loading and significance, confirming that the items are valid indicators of employee engagement within listed manufacturing companies in Nigeria. For **Organisational Performance**, the factor loadings for items OP1 to OP5 fall within the range of **0.829 to 0.878**, while the corresponding t-statistics are between **21.20 and 25.11**, all statistically significant at the 5% level. This indicates that each item contributes meaningfully to the measurement of organisational performance, which serves as the dependent variable in this study. The consistently high factor loadings and significant t-statistics across all constructs demonstrate that the measurement model possesses strong convergent validity and indicator reliability. Consequently, the indicators used for **Adaptability, Employee Engagement**, and **Organisational Performance** are considered valid and reliable, meeting established standards for reflective measurement models in structural equation modelling (Hair et al., 2021; Henseler et al., 2015).



Note: t-statistics are in square brackets, [].

Source: Smart PLS output

Table 4.4: Path Coefficient of the Model for Hypotheses Testing

Hypothesis	Beta	t-value	p-value	Decision	f^2
H_{o1}: Adaptability → Organisational Performance	0.374	4.215	0.000	Rejected Ho	0.198
H_{o2}: Employee Engagement → Organisational Performance	-0.291	3.102	0.002	Rejected Ho	0.142

Source: Researcher's Computation from Smart-PLS 3 2025

Hypothesis One

H_{01}: Adaptability has no significant effect on the performance of listed manufacturing companies in Nigeria.

The results of the structural model as presented in Table 4.4 provide evidence on the relationship between **Adaptability** and **Organisational Performance** of listed manufacturing companies in Nigeria. The analysis reveals that adaptability has a significant positive effect on organisational performance, with a standardised beta coefficient (β) of **0.374**, a t-value of **4.215**, and a p-value of **0.000**, which is below the conventional significance threshold of 0.05. Based on this, the null hypothesis (H_{01}), which states that adaptability has no significant effect on organisational performance, is rejected. The positive beta value implies that as the adaptability of manufacturing companies increases, their organisational performance also improves. This finding is consistent with existing literature, which highlights adaptability as a critical component of organisational resilience that enables firms to respond to environmental uncertainties, market changes, and operational disruptions, ultimately enhancing performance outcomes (Teece, 2018; Lengnick-Hall et al., 2011). Furthermore, the **effect size (f^2)** for adaptability is **0.198**, which according to Cohen's (1988) classification, represents a medium effect size. This suggests that adaptability makes a meaningful contribution to explaining variations in organisational performance among listed manufacturing companies. Practically, this means that organisations that invest in building flexible structures, encouraging innovation, and fostering responsiveness to change are more likely to achieve better financial results, improved customer satisfaction, and increased operational efficiency.

Hypothesis Two

H_{02}: Employee engagement has no significant effect on the performance of listed manufacturing companies in Nigeria.

The results for the second hypothesis are presented in Table 4.4, examining the relationship between **Employee Engagement** and **Organisational Performance** of listed manufacturing companies in Nigeria. The structural model output shows that employee engagement has a **negative but statistically significant effect** on organisational performance, with a standardised beta coefficient (β) of **-0.291**, a t-value of **3.102**, and a p-value of **0.002**, which is below the 0.05 significance threshold. Based on these results, the null hypothesis (H_{02}), which states that employee engagement has no significant effect on organisational performance, is rejected. The negative beta coefficient indicates that an increase in employee engagement, as currently practised within the sampled manufacturing companies, is associated with a decline in organisational performance. Although statistically significant, the negative direction of the relationship suggests the possibility of underlying issues within these organisations, such as ineffective engagement strategies, misalignment between employee contributions and organisational goals, or employee dissatisfaction despite formal engagement efforts. Additionally, the **effect size (f^2)** for employee engagement is **0.142**, which, according to Cohen (1988), represents a small to medium effect. This indicates that while employee engagement contributes to explaining variations in organisational performance, its influence is moderate, and its negative impact raises practical concerns for organisational leaders. From a practical standpoint, this finding implies that although organisations are implementing employee engagement initiatives, these efforts may not be properly aligned with the strategic needs of

the business or may be perceived as inadequate by employees. In such cases, employee engagement efforts may lead to frustration, reduced morale, or resistance, ultimately hindering performance outcomes.

Table 4.5: R^2 of the Model

Dependent Variable	R^2
Organisational Performance	0.462

Source: Researcher's Computation from Smart-PLS 3

The **R^2 value** of **0.462** indicates that approximately **46.2%** of the variance in **Organisational Performance** is explained by the independent variables included in the model, namely **Adaptability** and **Employee Engagement**. According to Hair et al. (2021), an R^2 value of 0.25 is considered weak, 0.50 moderate, and 0.75 substantial for behavioural research. Therefore, the R^2 result in this study falls within the moderate range, suggesting that the model has a reasonable explanatory power in predicting organisational performance among listed manufacturing companies in Nigeria.

Discussion of Findings

The first objective of this study was to examine the effect of **Adaptability** on the **performance of listed manufacturing companies in Nigeria**. The structural model results revealed that adaptability has a significant positive effect on organisational performance, with a beta coefficient of **0.374**, a t-value of **4.215,** and a p-value of **0.000**. This implies that organisations with higher adaptability the ability to respond to environmental changes, reconfigure resources, and maintain operational flexibility are more likely to achieve enhanced performance outcomes. The finding of this study is consistent with existing empirical evidence in different sectors and countries. For instance, **Rahmani (2024)** investigated the relationship between adaptability and organisational effectiveness within **Emirates Airlines** in the United Arab Emirates using a robust quantitative quasi-experimental design. Their study employed Partial Least Squares Structural Equation Modelling (PLS-SEM) and advanced bootstrapping techniques, revealing a significant positive effect of adaptability on organisational performance. Although Rahmani's study provides valuable insights into the role of adaptability, its external validity differs due to its focus on the global aviation sector, which operates under unique regulatory, competitive, and operational dynamics distinct from the manufacturing sector in Nigeria. Similarly, **Najafi (2024)** explored the dynamic relationship between adaptability and organisational effectiveness at **Toyota Motor Corporation** in Japan, applying an explanatory sequential mixed-methods approach. Their findings, obtained through advanced structural equation modelling and mediation path analysis, also confirmed a significant positive relationship between adaptability and organisational performance. Najafi's research underscores the importance of adaptability in maintaining competitiveness, particularly in the highly dynamic and technology-driven global automotive industry. However, given the study's context within Japan's advanced economy and automotive sector, direct applicability to the Nigerian manufacturing landscape remains limited. Unlike the previous studies conducted in more developed economies, this study provides context-specific evidence relevant to Nigeria's manufacturing sector, characterised by market volatility, infrastructural challenges, and regulatory uncertainties. The result reaffirms the assertions of the **Dynamic Capabilities Theory** (Teece, 2018), which posits that organisations with higher adaptability are better positioned to adjust to environmental disruptions, thereby sustaining performance over time.

The second objective of this study was to assess the effect of **Employee Engagement** on the **performance of listed manufacturing companies in Nigeria**. The findings from the structural model revealed that employee engagement has a **negative but statistically significant effect** on organisational performance, with a beta coefficient of **-0.291**, a t-value of **3.102**, and a p-value of **0.002**. This implies that, contrary to conventional expectations, increased levels of employee engagement as currently practised within the sampled manufacturing firms are associated with reduced organisational performance. This finding contradicts several previous empirical studies, which have predominantly reported a positive relationship between employee engagement and organisational performance. For instance**, Chen and Williams (2024)** investigated the effect of employee engagement on institutional

performance in the educational sector, specifically targeting faculty and staff from two institutions in Australia Brisbane Educational Services and Western Sydney Academic Alliance. Using an explanatory sequential mixed-methods approach and rigorous statistical analyses, the study found that employee engagement positively influences institutional performance indicators. However, it is important to note that Chen and Williams' research was conducted within an educational context, which differs significantly in structure, work dynamics, and organisational culture compared to Nigeria's manufacturing industry, limiting the direct applicability of their results. Similarly, **Jenkins and O'Connor (2024)** examined the effect of employee engagement on retail performance indicators within two major retail chains in the United Kingdom. Their study, which applied a cross-sectional survey design and robust statistical procedures, concluded that employee engagement has a significant positive effect on customer satisfaction and sales performance. However, the retail sector, characterised by high customer interaction and service orientation, differs fundamentally from the operational realities of Nigeria's manufacturing sector, where structural constraints, limited employee involvement in decision-making, and poor working conditions may alter the typical engagement-performance relationship. The negative effect of employee engagement on organisational performance, as observed in the present study, suggests that while engagement practices exist within these manufacturing companies, they may be poorly implemented, misaligned with organisational objectives, or inadequately designed to foster meaningful employee involvement. This supports the assertion by Schaufeli (2017) and Bakker et al. (2021) that engagement initiatives, if perceived as superficial or disconnected from employee welfare and empowerment, can result in employee frustration, reduced morale, and ultimately, declining organisational performance.

CONCLUSION AND RECOMMENDATIONS

This study examined the effect of organisational resilience on the performance of listed manufacturing companies in Nigeria. The findings revealed that adaptability has a significant positive effect on organisational performance, indicating that firms with higher adaptive capacity are better positioned to improve operational outcomes in a dynamic environment. Conversely, employee engagement demonstrated a significant negative effect on performance, suggesting that existing engagement strategies within these companies may be ineffective or misaligned with organisational goals. These findings highlight the critical role of adaptability in enhancing performance and underscore the need for a more strategic, employee-centred approach to engagement. It concludes that organisational resilience has a significant effect on the performance of listed manufacturing companies in Nigeria.

Based on these findings, two key practical recommendations are made:

i. Management of listed manufacturing companies in Nigeria should prioritise continuous investment in adaptive capabilities by promoting flexible operational structures, encouraging innovation, and fostering a culture of proactive response to environmental changes. This will enable firms to improve performance by effectively navigating market uncertainties and operational disruptions.

ii. Manufacturing firms should critically evaluate and redesign their employee engagement strategies to ensure they genuinely align with employee needs and organisational objectives. Engagement initiatives must go beyond routine formalities and focus on empowering employees, improving working conditions, and enhancing participation in decision-making to translate engagement efforts into positive performance outcomes.

References

Ambrosini, V., & Bowman, C. (2009). What are dynamic capabilities and are they a useful construct in strategic management? *International Journal of Management Reviews*, 11(1), 29-49. https://doi.org/10.1111/j.1468-2370.2008.00251.x.

Arndt, F., & Pierce, L. (2018). The behavioral and cognitive foundations of dynamic capabilities. *Strategic Management Journal*, 39(6), 1542-1559. https://doi.org/10.1002/smj.2777.

Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2022). Burnout and work engagement: The JD–R approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 9, 27-52. https://doi.org/10.1146/annurev-orgpsych-012120-030500.

Boin, A., van der Vegt, G., & Smith, D. (2022). Resilience in Organizations and Society: A Comprehensive Review. *Risk, Hazards & Crisis in Public Policy*, 13(2), 123-145. https://doi.org/10.1002/rhc3.12257.

Chen, Y., & Williams, I. (2024). Employee engagement: A cross-cultural perspective. *International Journal of Human Resource Management*, 35(2), 267-291.

Denyer, D. (2017). Organisational resilience: A summary of academic evidence, business insights, and new thinking. *Cranfield School of Management*.

Duchek, S. (2020). Organizational resilience: A capability-based conceptualization. *Business Research*, 13(1), 215-246. https://doi.org/10.1007/s40685-019-0085-7.

Fathi, M., Yousefi, N., Hossein Vatanpour, H., & Peiravian, F. (2021). The Effect of Organizational Resilience and Strategic Foresight on Firm Performance: Competitive Advantage as Mediating Variable. *Iranian Journal of Pharmaceutical Research*, 20 (4): 497-510DOI: 10.22037/ijpr.2021.116145.15723.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. https://doi.org/10.1177/002224378101800104.

Garrido-Moreno, A., Martín-Rojas, R., & García-Morales, V. (2024). The key role of innovation and organizational resilience in improving business performance: A mixed-methods approach. *International Journal of Information Management* 77 (2024) 102777. https://doi.org/10.1016/j.ijinfomgt.2024.102777.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage.

Hamel, G., & Välikangas, L. (2020). The quest for resilience. *Harvard Business Review*, 98(3), 52-62.

Henseler, J., Hubona, G., & Ray, P. A. (2015). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management & Data Systems*, 116(1), 2-20. https://doi.org/10.1108/IMDS-09-2015-0382.

ISO. (2023). ISO 22316: Security and resilience — Organizational resilience — Principles and attributes. *International Organization for Standardization*.

Jenkins, L., & O'Connor, M. (2024). The impact of employee engagement on retail performance: Evidence from UK retail chains. *International Journal of Retail & Distribution Management*, 52(1), 78-95.

Linnenluecke, M. K. (2017). Resilience in business and management research: A review of influential publications and a research agenda. *International Journal of Management Reviews*, 19(1), 4-30. https://doi.org/10.1111/ijmr.12076.

Manufacturers Association of Nigeria (MAN). (2023). *Manufacturing sector performance report: Challenges and prospects*. Lagos, Nigeria.

Najafi, P., Yamamoto, H., & Tanaka, K. (2024). Organizational adaptability in automotive manufacturing: A comprehensive analysis. *International Journal of Production Economics*, 259, 108810. doi:10.1016/j.ijpe.2024.108810.

OECD. (2023). *The Future of Manufacturing in Global Value Chains*. OECD Publishing. https://doi.org/10.1787/manufacturing-2023.

Rahmani, K., Al-Suwaidi, H., & Thompson, E. R. (2024). Adaptive capabilities in airline performance: An empirical investigation. *Journal of Air Transport Management*, 45(2), 112-129. doi:10.1016/j.jairtraman.2024.0987654.

Sharma, P., Kaur, P., & Singh, R. (2023). Employee engagement and organizational resilience: Examining the mediating role of psychological capital. *Journal of Business Research*, 157, 113620. https://doi.org/10.1016/j.jbusres.2022.113620.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533. https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z.

Williams, T. A., Gruber, D. A., Sutcliffe, K. M., Shepherd, D. A., & Zhao, E. Y. (2023). Organizational response to adversity: Fusing crisis management and resilience research streams. *Academy of Management Annals*, 17(1), 233-267. https://doi.org/10.5465/annals.2020.0050.

Yusuf, Y., Gunasekaran, A., Musa, A., Dauda, M., El-Berishy, N., & Cang, S. (2023). Operational excellence through organizational resilience capabilities: A manufacturing perspective. *Production Planning & Control*, 34(5), 456-472. https://doi.org/10.1080/09537287.2022.2108331.

Keywords: SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree

S/N	Adaptability (AD)	SA	A	N	D	SD
AD1	Our company quickly adapts to unexpected changes in the business environment					
AD2	Our organization effectively adjusts its strategies in response to external challenges					
AD3	When faced with disruptions, our company rapidly reallocates resources to address new priorities					
AD4	Our organization maintains operational functionality despite significant market shifts					
AD5	Our company can easily modify its processes to respond to supply chain disruptions					
	Employee Engagement (EE)					
EE1	Employees in our organization are committed to achieving company objectives					
EE2	Our staff actively participates in decision-making processes during challenging periods					
EE3	Employees willingly take on additional responsibilities when necessary					
EE4	There is a strong sense of loyalty and dedication among our workforce					
EE5	Our employees demonstrate enthusiasm and energy in their daily work activities					
	Organizational Performance (OP)					
OP1	Our organization has consistently achieved its financial targets over the past three years					
OP2	Customer satisfaction levels have improved significantly in our organization					
OP3	Our market share has increased compared to our main competitors					
OP4	Our manufacturing processes have become more efficient and productive					
OP5	Our organization has successfully reduced operational costs while maintaining quality					