

# Innovation Strategies and the Profitability of Selected Manufacturing Micro, Small, and Medium Enterprises in Lagos State, Nigeria

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**Article DOI:**

10.48028/ijprds/ijedesr.v9.i1.14

**Keywords:**

Collaboration,  
Exploration,  
Innovation  
strategies, MSMEs,  
Technology  
adaptation,  
Profitability

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## Abstract

Profitability in manufacturing Micro, Small, and Medium Enterprises (MSMEs) is critical as it indicates the strength of the sector given way for economic development. Despite efforts to improve their profitability, many manufacturing MSMEs remain suboptimal, as reflected in declining performance. This challenge may be linked to the limited adoption of innovation strategies. Although previous studies have explored the role of innovation strategies in enhancing profitability of manufacturing MSMEs, the majority of these studies focused on developed countries, leaving a gap in understanding its impact within the Nigerian context. This study, examined the effect of innovation strategies on profitability of selected manufacturing MSMEs in Lagos State, Nigeria. The study adopted survey research design. The population of the study comprised 80,072 regular selected manufacturing MSMEs in Lagos State, Nigeria. A sample size of 498 was determined using the Research Advisor's sample size table. Proportionate and simple random sampling technique was adopted to select the respondents. A structured and validated questionnaire was used for data collection. The Cronbach's alpha reliability coefficients for the constructs ranged from 0.73 to 0.77. A response rate of 85.0% was recorded. Data were analysed using descriptive and inferential (multiple linear regression) statistics at 5% level of significance. Finding revealed that innovation strategies have significant effect on profitability of selected manufacturing MSMEs in Lagos State, Nigeria. ( $Adj.R^2 = 0.262$ ,  $F(3, 478) = 58.009$ ,  $p < 0.05$ ). The study concluded that innovation strategies influenced the profitability of selected manufacturing MSMEs in Lagos State, Nigeria. The study recommended that management of manufacturing MSMEs should integrate systematic innovation practices into their core business operations to enhance SMEs profitability. Management of manufacturing MSMEs in Lagos State should institutionalise a structured innovation strategy framework that deliberately allocates resources toward product, process, and organisational innovations to enhance profitability.

### **Background to the Study**

Manufacturing Micro, Small, and Medium Enterprises (MSMEs) constitute a vital component of Nigeria's economic architecture, serving as engines of industrial growth, job creation, and poverty alleviation. Their contributions to the national Gross Domestic Product (GDP) and employment are substantial, with significant representation across diverse sectors such as trade, agriculture, construction, and pharmaceuticals. Beyond their economic role, manufacturing MSMEs enhance local value chains, stimulate innovation, and foster inclusive development, thereby reinforcing national industrialization efforts. Despite these interventions, the profitability of many manufacturing MSMEs remains suboptimal, as reflected in declining performance. Emerging evidence suggests that these challenges may be linked to the limited adoption of innovation strategies. Without effectively integrating innovative practices, MSMEs risk stagnation in the face technological disruptions, low profitability and poor performance. This underscores the need for an empirical investigation into the effect of innovation strategies on the profitability of selected manufacturing MSMEs in Lagos State, Nigeria.

Globally, manufacturing Micro, Small, and Medium Enterprises (MSMEs) remain vital drivers of economic growth, contributing significantly to industrial output, employment creation, and innovation. According to Deloitte Insights (2024), they account for over 50% of global Gross Domestic Product (GDP). In North America, manufacturing micro, small, and medium enterprises (MSMEs) have faced persistent declines in profitability and competitiveness over recent years, driven largely by rising operational costs, supply chain disruptions, technological adoption gaps, and intensifying global competition (Nadyan et al., 2021; Restrepo-Morales et al., 2024). In the United State of America, small manufacturing firms, representing over 98% of businesses in the sector, experienced a 12% contraction in profitability margins between 2020 and 2023, primarily due to escalating raw material costs and acute labour shortages (U.S. Small Business Administration [SBA], 2023). In Canada, manufacturing MSMEs have similarly struggled to sustain competitive advantage, hindered by rising input costs, insufficient technological advancement, and intensified competition from lower-cost global producers (Roberts & Muralidharan, 2022; Taherizadeh & Beaudry, 2023). Statistics Canada (2023) reports that output growth for manufacturing MSMEs averaged only 1.2% annually from 2020 to 2023, compared to 3.5% for large firms, reflecting a widening performance gap.

The productivity decline of manufacturing Micro, Small, and Medium Enterprises (MSMEs) in Europe, particularly in the United Kingdom, has become a pressing economic concern in the aftermath of Brexit and the COVID-19 pandemic. According to the Office for National Statistics (ONS, 2024), manufacturing output per hour worked in MSMEs fell by an average of 1.2% annually between 2020 and 2023, driven by factors such as supply chain disruptions and escalating production costs. Manufacturing MSMEs in Russia have experienced a significant decline in sales growth, shaped by economic sanctions, disrupted supply chains, and volatile market conditions

(Molodchik et al., 2021; Zemtsov et al., 2022). The Russia Small Business Index (RSBI) reported a 6% drop in sales activity between 2022 and 2024, reflecting reduced domestic demand and persistent export barriers (Opora Russia, 2024). The Stolypin Institute (2023) noted a 4.2% decrease in revenue growth per manufacturing MSME from 2021 to 2023, largely attributable to rising input costs and restricted access to Western markets. Ivanov and Petrov (2025) further observed a 10% contraction in sales volume between 2020 and 2025, linking it to sanctions that curtailed technology imports.

The performance challenges are not limited to advanced economies but are also common in developing countries. Dwikat et al. (2022) report that 45% of manufacturing MSMEs in emerging markets lost their competitive edge due to poor strategic planning and weak innovation capacity. In Africa, the decline in manufacturing MSME performance is becoming more apparent, with Zimbabwe being one of the most severe cases. Economic volatility, chronic infrastructure shortages, and limited access to resources have together diminished the sector's competitiveness. Data from the Confederation of Zimbabwe Industries shows that capacity utilization dropped from 48.2% in 2018 to 36.4% in 2019, with projections indicating a further decrease to 27% by 2026, mainly due to ongoing power shortages and currency instability (Chundu et al., 2020). In Nigeria, manufacturing MSMEs play a pivotal role in industrialization, poverty reduction, and employment generation. Nevertheless, their productivity fell by 5.8% between 2020 and 2023, a decline attributed to technological inefficiencies and limited market-oriented strategies (SMEDAN, 2021).

Profitability among Nigeria's manufacturing micro, small, and medium enterprises (MSMEs) has deteriorated sharply in recent years, driven by escalating production costs, persistent inflationary pressures, and volatile exchange rates. Inflation surged to 34.8% in 2024 (NBS, 2024), compressing profit margins as rising input costs outstripped revenue growth. Monetary tightening by the Central Bank of Nigeria (CBN) pushed lending rates to 27.5% (Global Financial Digest, 2025), amplifying financial strain for the 65% of MSMEs reliant on high-cost credit facilities. Exchange rate instability compounded these challenges, with the naira depreciating to ₦1,539.4 per U.S. dollar in 2024 (NESG, 2025), inflating the cost of imported raw materials.

The decline in profitability is widespread. A PwC (2020) survey revealed that 70% of manufacturing MSMEs reported falling turnover, with 64.5% of micro-enterprises earning below ₦50,000 per month. Competitive pressures have intensified, with 19% of failed MSMEs citing being "outcompeted" due to aggressive pricing strategies by rivals (LSETF, 2024). Without targeted interventions, such as tax reforms (e.g., VAT exemptions for small businesses) and measures to curb energy costs, the sector will remain trapped in a cycle of shrinking margins and eroding competitiveness. Against this backdrop, innovation strategies, spanning technology adaptation, exploration, and collaboration, have emerged as critical levers for reversing the profitability decline. Technology adaptation enables MSMEs to integrate cost-efficient automation and digital tools, reducing waste, improving product quality, and lowering operational costs.

Exploration fosters the development of differentiated products and novel processes, enabling firms to command premium prices in niche markets. Collaboration facilitates access to resources, expertise, and markets through partnerships with suppliers, research institutions, and other enterprises (Porter & Heppelmann, 2020).

Extant literature has extensively examined the relationship between innovation strategy dimensions and profitability across diverse industries, including banking, construction, and manufacturing, yielding varied results attributable to differences in contextual factors, strategic approaches, and methodological designs (Hassan Ananzeh et al., 2021; Kerdpitak & Jankawekun, 2022; Kim, 2023; Müller et al., 2021; Sonmez Cakir & Adiguzel, 2023; Timotius, 2023). However, empirical studies exploring this relationship within the Nigerian manufacturing MSME sector remain limited (Ighomereho et al., 2022), leaving a critical knowledge gap. Evidence suggests that many manufacturing MSMEs in Nigeria lack clarity on their competitive positioning and fail to apply appropriate innovation strategies to enhance profitability, contributing to a sustained decline (Lateef & Keikhosrokiani, 2023; Zainuddin & Sudarmiatin, 2023). Hence, the need for this study.

### **Objective of the Study**

The objective of the study was to evaluate the effect of innovation strategies on the profitability of selected manufacturing Micro, Small and Medium Enterprises (MSMEs) in Lagos State, Nigeria. To achieve this objective, a research question and hypothesis were formulated.

### **Research Question**

What is the effect of innovation strategies on the profitability of manufacturing MSMEs?

### **Research Hypothesis**

The following hypothesis was formulated to serve as a guide to the conduct of this research, and was tested at 0.05% level of significance:

**H<sub>0</sub>:** Innovation strategies have no significant effect on profitability of manufacturing MSMEs.

### **Literature Review**

This section deals with the review of conceptual, empirical and theoretical views of both independent and dependent variables of this study.

### **Innovation Strategies**

Innovation strategies encompass deliberate approaches firms adopt to foster novelty and innovation. Wolf et al. (2021) define them as multidimensional frameworks integrating product, process, and organisational innovation to drive performance. Phung et al. (2021) describe innovation strategies as internal and external efforts to enhance process efficiency, emphasizing collaboration and knowledge acquisition. Sun and Sun (2021) view them as green-oriented plans integrating sustainable practices across supply chains to boost environmental outcomes. Yulita and Fanani (2021) define innovation strategies

as managerial actions aligning resources to improve firm performance through creativity. Madrid-Guijarro and Garces-Torres (2023) frame them as open innovation practices, particularly for MSMEs, leveraging external partnerships. Sheth and Sinfield (2022) conceptualize innovation strategies as analytical frameworks to prioritize simple, effective rules for market disruption. In the same vein, Xiao et al. (2022) define them as innovation-driven policies fostering high-quality economic development through technological advancements. These definitions highlight diverse foci-sustainability, collaboration, managerial alignment, and disruption reflecting the adaptability of innovation strategies to industry and firm contexts. While some emphasize external engagement (Madrid-Guijarro & Garces-Torres, 2023), others focus on internal capabilities (Yulita & Fanani, 2021). This variety underscores the need for context-specific definitions to guide strategy implementation effectively.

Innovation strategies deliver substantial benefits across industries. Phung et al. (2021) demonstrate that internal and external innovation strategies enhance process efficiency in Vietnamese firms, boosting competitiveness. Sun and Sun (2021) show that green innovation strategies improve environmental performance through supply chain integration. Yulita and Fanani (2021) find that managerially driven innovation strategies elevate firm performance by aligning resources effectively. Innovation strategies, while beneficial, have drawbacks. Kim (2023) notes that ambiguity in strategy design can lead to misaligned efforts, reducing effectiveness. Xia et al. (2021) highlight that unethical pro-organisational behaviors tied to innovation strategies may erode trust and long-term performance. Li et al. (2021) point out that innovation strategies increase corporate risk-taking, potentially destabilizing firms. Kahn and Candi (2021) caution that poorly implemented strategies may fail to deliver expected performance gains, wasting resources. In this study, innovation strategies are purposeful plans integrating creativity, collaboration, and sustainability to drive organisational growth.

### **Technology Adaptation**

Technology adaptation within business and organisational contexts encompasses various interpretations depending on the perspective, function, and scope of its application. Ambo Upe (2023) defines technology adaptation as the process through which business actors internalize and modify existing technological innovations to suit their operational needs, especially in the evolving digital economy. From an environmental standpoint, Agan and Balcilar (2023) describe it as the strategic integration of green technologies in response to climate change, aimed at promoting sustainable development. In educational institutions, Walker et al. (2023) interpret technology adaptation as the forced or voluntary adoption and contextualization of digital tools to maintain academic delivery, often triggered by crisis situations such as pandemics.

Technology adaptation is characterized by multidimensional features that influence how organisations respond to technological innovations. A key characteristic is its context dependency, meaning that adaptation processes are shaped by the specific socio-

cultural, economic, and institutional environments in which they occur (Ameyaw & de Vries, 2023). In the context of Micro, Small, and Medium Enterprises (MSMEs), technology adaptation offers distinct advantages that contribute to survival, competitiveness, and growth. Awwal et al. (2023) find that in the MSME food and beverage sector in Indonesia, technology adaptation significantly enhances competitive advantage when coupled with strong leadership characteristics such as CEO proactiveness. Technology adaptation also presents certain drawbacks despite its advantages. One primary concern is the high cost of adaptation, particularly for small organisations with limited resources (Bakeri et al., 2023). These costs are not limited to hardware but extend to training, system integration, and change management. Walker et al. (2023) note that forced or rushed adaptation especially in sectors like education can compromise user privacy and data security. Technology adaptation is defined by this researcher as the deliberate modification and integration of existing or new technologies within an organisation to enhance strategic outcomes, ensure operational efficiency, and maintain competitiveness in a dynamic business environment.

### **Exploration**

Exploration refers to the strategic pursuit of novel opportunities, knowledge creation, and innovation through activities such as experimentation, risk-taking, and discovery of new markets or technologies. According to Lee et al. (2022), exploration involves firms engaging in divergent search processes to develop radical innovations that challenge existing competencies and expand future growth pathways. Silvestre et al. (2022) define it as the organizational emphasis on variation and untested alternatives, enabling adaptability in dynamic environments by fostering creativity over routine efficiency. Gatchev et al. (2022) further describe exploration as the allocation of resources toward uncertain ventures that build long-term capabilities, contrasting it with short-term optimization. Kyoung and Sung (2023) characterize exploration as proactive learning through external scanning and idea generation, essential for organizational ambidexterity in competitive landscapes. Pietsch et al. (2022) elaborate that it encompasses investments in R&D and novel processes that enhance a firm's resilience against disruptions.

The adoption of exploration practices offers useful benefits to firms, especially those operating in dynamic and competitive environments. One major advantage is innovation. By prioritizing exploration, firms can discover novel products, services, or business models that offer a competitive edge (Silvestre et al., 2022). This is particularly important in industries marked by rapid technological change and shifting consumer preferences. Another benefit is enhanced adaptability. Exploration offers distinct and critical benefits to micro, small, and medium enterprises (MSMEs), which often face resource limitations and market volatility. For MSMEs, exploration acts as a gateway to innovation without the need for large-scale investment. Through low-cost experimentation and iterative learning, these enterprises can introduce novel offerings tailored to niche market needs (Silvestre et al., 2022). Exploration also presents notable disadvantages, particularly for firms operating under resource constraints. One key

challenge is the high level of uncertainty and risk involved in exploration activities, which may lead to failed initiatives and wasted resources (Sabidussi et al., 2023). In this study, exploration is defined as a proactive and strategic process through which firms engage in discovering, experimenting, and adapting to new ideas, markets, and technologies.

### **Collaboration**

Collaboration has emerged as a pivotal concept in the business and organisational domain, yet its definitions vary across contexts and disciplines. At its core, collaboration refers to the process whereby individuals or entities work together towards a common goal, sharing resources, risks, and responsibilities (Vangrieken et al., 2015). In organisational settings, this often translates to joint efforts among departments, firms, or institutions to achieve efficiency or innovation. For instance, Morgan (2024) emphasizes the creative synergy produced through arts–research collaboration, defining collaboration as a method of co-creation and shared meaning-making. Similarly, Mills et al. (2021) describe collaboration as a systemic interaction among multiple stakeholders working in alignment for long-term sustainability, particularly within smart city initiatives. From a technological standpoint, Reim et al. (2023) conceptualize collaboration as digitally mediated interactions that allow firms to co-create value on platforms such as digital twins. This digital perspective is further reinforced by Schwade (2021), who views collaboration as a series of interdependent social interactions that generate measurable business intelligence.

Collaboration offers progressive advantages to organisations, particularly in enhancing innovation, knowledge exchange, and competitive positioning. One of the most significant benefits is knowledge sharing, which allows firms to access external expertise and generate novel ideas (Belitski & Mariani, 2023). This process fuels business model reconfiguration and helps organisations stay competitive in fast-changing markets. Collaboration also supports resource pooling, enabling firms to achieve economies of scale and reduce costs (Zacharias et al., 2023). Collaboration poses notable challenges, particularly around risk, complexity, and conflict. Terman et al. (2020) caution that collaboration carries inherent risks, such as loss of autonomy, misaligned goals, or dependency on unreliable partners. In some cases, collaboration may result in strategic misfit, where partners fail to achieve synergy due to incompatible cultures or operations (Piezunka & Grohsjean, 2023). In this study, collaboration is defined as a strategic process of joint value creation through shared vision, knowledge exchange, and mutual accountability among independent actors.

### **Profitability**

Profitability is a multifaceted concept in business and financial literature, often defined as the ability of a firm to generate earnings relative to its costs, assets, or equity. Caby et al. (2022) describe profitability as a measure of financial performance, reflecting a firm's capacity to achieve positive returns through effective management of resources. Similarly, Linawati et al. (2022) define it as the ratio of net income to total assets or equity,

emphasizing its role in assessing operational efficiency. Chhaidar et al. (2023) view profitability as an indicator of a firm's competitive strength, driven by revenue generation and cost control. Louw et al. (2022) expand this by linking profitability to the outcomes of working capital management, highlighting its dependence on liquidity and operational decisions. Carannante et al. (2022) frame profitability in the context of risk-adjusted returns, particularly relevant in volatile sectors like insurance. Koroleva et al. (2021) emphasize profitability as a function of strategic decisions, such as capital allocation, in state-owned banks.

Profitability offers various advantages to firms, serving as a cornerstone for growth and stability. Rohman et al. (2022) argue that profitability enhances financial resilience, enabling firms to withstand economic downturns. Kumar et al. (2022) highlight its role in attracting investment, as higher profits signal strong performance to shareholders and creditors. Haddad et al. (2022) note that profitability supports expansion, providing resources for innovation, market entry, and infrastructure development. Carbó-Valverde et al. (2022) emphasize improved stakeholder confidence, as consistent profitability fosters trust among customers, employees, and partners. Olmo et al. (2021) point out that profitability enhances competitive positioning, allowing firms to leverage economies of scale and negotiate better terms with suppliers. While profitability is desirable, it can present certain disadvantages. Senan et al. (2021) note that an excessive focus on profitability may lead to short-termism, where firms prioritize immediate gains over long-term sustainability. Pires et al. (2021) highlight that high profitability can attract regulatory scrutiny, particularly in industries like banking, increasing compliance costs. Aldubhani et al. (2022) point out that profitability may create pressure to maintain performance, leading to risky financial decisions. Given that MSMEs are vulnerable to economic shocks, in prioritizing short-term profits over resilience, they may lack cash reserves to weather downturns like recessions or supply disruptions. This can lead to forced closures, as seen in many Nigerian SMEs during past crises (Mansikkamäki, 2023). In this study, profitability is the ability of a firm to generate sustainable financial surplus through efficient resource utilization and strategic decision-making, reflecting its operational success and market competitiveness.

### **Innovation Strategies Dimensions and Profitability**

The exploration of innovation strategies dimensions has demonstrated a substantial and positive impact on profitability across various organisational and industry contexts, as evidenced by numerous empirical studies. Gómez-Prado et al. (2022) found that specific dimensions of innovation strategies, particularly product innovation, significantly enhance the profitability and international performance of startups in Peru. Their study revealed that integrating market intelligence and pricing capabilities with product innovation strengthens competitive advantage, thereby improving market positioning and financial returns. Similarly, Hussain et al. (2020) established that marketing innovation strategies positively influence profitability in the hospitality industry, where sustainable brand equity and innovation mediate the relationship between innovation strategies and improved financial outcomes.

Further empirical evidence reinforces the strong linkage between innovation strategies dimensions and profitability. Farida and Setiawan (2022) reported that innovation strategies, especially process and product innovations, have a significant positive effect on competitive advantage, which subsequently boosts business performance and profitability. Likewise, Masrom et al. (2022) demonstrated that innovation serves as a mediating factor between total quality management and profitability in manufacturing firms, showing that technological and process innovations enhance efficiency and market responsiveness, leading to sustained financial gains. Yannan et al. (2022) further observed that innovation, when aligned with corporate social responsibility and green investment, positively impacts profitability in manufacturing industries across China and Saudi Arabia by integrating sustainable practices that align with consumer expectations.

### **Innovation Diffusion Theory**

Innovation Diffusion Theory (IDT), propounded by Everett M. Rogers in 1962, explains how new ideas, technologies, or innovations spread within a social system over time (Rogers, 1962). The theory posits that diffusion occurs through a process influenced by the innovation's characteristics relative advantage, compatibility, complexity, trialability, and observability and the communication channels, social systems, and time involved. Rogers categorized adopters into five groups: innovators, early adopters, early majority, late majority, and laggards, each with distinct characteristics affecting their adoption speed. The theory assumes that adoption follows an S-shaped curve, with initial slow uptake accelerating as more individuals adopt, eventually tapering off as saturation occurs (Rogers, 2003).

The theory rests on several key assumptions, that individuals make rational decisions based on perceived benefits, social influence drives adoption, and communication networks shape the diffusion process (Rogers, 2003). It also assumes heterogeneity in a population's willingness to adopt, influenced by socioeconomic factors, access to information, and cultural norms. IDT has been widely applied in fields like public health, marketing, and technology to understand adoption behaviors, such as the spread of mobile phones or vaccination campaigns. Critiques highlight its assumption of universal applicability across contexts, yet it remains a foundational framework for studying innovation spread (Dearing & Cox, 2018).

Supporters of Innovation Diffusion Theory, primarily built on Rogers' seminal work, argue that it provides a robust framework for understanding how innovations whether ideas, technologies, or practices spread through social systems over time. Building upon Everett M. Rogers' foundational work, subsequent scholars and practitioners contend that Innovation Diffusion Theory offers a comprehensive framework for understanding how new ideas, technologies, and practices disseminate within social systems. The theory conceptualizes diffusion as a communication process encompassing five key elements: the innovation, potential adopters, communication channels, time, and the broader social system. As outlined by Rogers (2003), adoption typically progresses

through the stages of awareness, interest, evaluation, trial, and confirmation. Proponents emphasize the theory's wide-ranging applicability across disciplines, including public health, education, and technology adoption, noting its capacity to explain why certain innovations achieve widespread acceptance while others fail to gain traction.

Despite its broad applicability, critics contend that Innovation Diffusion Theory may oversimplify the complex social, cultural, and contextual factors influencing adoption. They argue that the model's linear depiction of diffusion overlooks power dynamics, cultural heterogeneity, and resource disparities that can significantly affect innovation uptake, particularly in developing or marginalized contexts. Critiques of Innovation Diffusion Theory (IDT), as proposed by Everett Rogers, highlight several limitations in its application and assumptions. Scholars argue that IDT oversimplifies the adoption process by focusing on individual decision-making while neglecting broader contextual factors such as organisational dynamics, power structures, and cultural influences (Lyytinen & Damsgaard, 2001). Innovation Diffusion Theory (IDT) is relevant in studying innovation strategies, profitability of manufacturing MSMEs, as it provides a framework to understand how innovations are adopted and spread within and across organisations. For MSMEs, which often face resource constraints, IDT helps explain how factors like relative advantage, compatibility, complexity, trialability, and observability influence the adoption of innovative strategies, such as new production processes or technologies.

### **Methodology**

The study adopted a positivism research philosophy, which assumes that reality is observable and can be understood through scientific methods, from an ontological perspective, this study adopted a realistic view, considering that there exists an objective reality independent of human perception. The study adopted a quantitative research approach, which focuses on collecting and analysing numerical data to identify patterns, relationships, and trends. Survey research design was employed. The population of the study comprised 80,072 regular selected manufacturing MSMEs in Lagos State, Nigeria. A sample size of 498 was determined using the Research Advisor's sample size table. Proportionate and simple random sampling technique was adopted to select the respondents. A structured and validated questionnaire was used for data collection. The Cronbach's alpha reliability coefficients for the constructs ranged from 0.73 to 0.77. A response rate of 85.0% was recorded. Data were analysed using descriptive and inferential (multiple linear regression) statistics at 5% level of significance

### **Analysis: Data Presentation and Analysis**

The descriptive analysis of the variables was done using the percentage analysis, mean and standard deviation to describe the dependent and independent variables of the research. From the variables used, each respondent was requested to respond based on their level of agreement with the statements which was done on a six-point Likert-type scale.

### Response Rate

A total number of 498 copies of the questionnaire was administered to the respondents out of which 423 representing 85.0% were retrieved and found usable for analysis from the distributed questionnaire.

**Table 1:** Response Rate

Particulars	Frequency	Percentage
Completed and Usable copies of questionnaires	423	85.0%
Not returned/Declined filling	75	15.0%
Total	498	100%

**Source:** Field Survey Data (2026)

### Restatement of Research Objective and Research Question

**Objective:** Evaluate the effect of innovation strategies on profitability of selected MSMEs in Lagos State Nigeria

**Research Question:** What is the effect of innovation strategies on profitability of selected MSMEs in Lagos State Nigeria?

Respondents were requested to share their views on various enquiries presented in the questionnaire regarding innovation strategies and profitability. Six-point Likert type scale was used to analyse their responses. These points formed the weights for calculating the score for each item. The findings were presented in various tables which could not be presented due to limited pages as required by the publishing institution followed with an analysis and interpretation. The descriptive statistics for profitability was presented as well in another table followed with the interpretations.

### Restatement of Research Hypothesis

$H_0$ : Innovation strategies have no significant effect on profitability of manufacturing MSMEs.

To test the hypothesis that Innovation strategies have no significant effect on profitability of manufacturing MSMEs. multiple linear regression was utilized and the results are presented in Table 1.

**Table 2:** Summary of results of linear regression analysis for effect of innovation strategies on productivity of manufacturing MSMEs.

<i>N</i>	<i>Model</i>	<i>B</i>	<i>Sig.</i>	<i>T</i>	<i>ANOVA (Sig.)</i>	<i>R</i>	<i>Adj. R<sup>2</sup></i>	<i>F (3,478)</i>
	(Constant)	11.146	0.000	8.834	0.000 <sup>b</sup>	0.517 <sup>a</sup>	0.262	58.009
	Technology Adaptation	0.082	0.041	2.054				
	Exploration	0.009	0.842	0.199				
	Collaboration	0.452	0.000	9.118				
481	Predictors: (Constant), Collaboration, Exploration, Technology Adaptation							
	Dependent Variable: Profitability							

**Source:** Researchers' survey, 2026

Table 2 presents the multiple regression analysis results examining the effect of innovation strategy dimensions (technology adaptation, exploration, and collaboration) on the profitability of manufacturing MSMEs. The results indicate that two of the three dimensions showed a statistically significant effect on profitability.

Specifically, technology adaptation had a positive and statistically significant effect on profitability ( $\beta = 0.082$ ,  $t = 2.054$ ,  $p < 0.05$ ). This implies that an increase in technology adaptation leads to a corresponding improvement in profitability. Collaboration also revealed a positive and statistically significant effect on profitability ( $\beta = 0.452$ ,  $t = 9.118$ ,  $p < 0.05$ ), indicating that enhanced collaborative practices substantially improve firm profitability. However, Exploration showed a positive but statistically insignificant effect on profitability ( $\beta = 0.009$ ,  $t = 0.199$ ,  $p > 0.05$ ), suggesting that exploration activities do not significantly influence profitability within the context of this model. Among the predictor variables, Collaboration recorded the highest beta coefficient, indicating that it is the strongest predictor of profitability among the innovation strategy dimensions considered.

The constant value of 11.146 indicates that when all the predictors are held constant at zero, profitability would still stand at 11.146, which is positive. The correlation coefficient ( $R = 0.517$ ) showed that a moderate positive relationship exists between innovation strategy dimensions and profitability. The coefficient of multiple determination ( $Adj. R^2 = 0.262$ ) shows that approximately 26.2% of the variation in profitability is explained by the dimensions of innovation strategies (Technology Adaptation, Exploration, and Collaboration), while the remaining 73.8% is attributed to other factors not captured in the model.

The ANOVA result showed that the overall regression model is statistically significant ( $F = 58.009$ ,  $p = 0.000$ ,  $p < 0.05$ ), indicating that the independent variables jointly have a significant effect on profitability.

The predictive and prescriptive regression model is therefore expressed as:  
PFTY = 11.146 + 0.082TEAD + 0.009EXPL + 0.452COLL + U<sub>i</sub> (Predictive Model)  
PFTY = 11.146 + 0.082TEAD + 0.452COLL + U<sub>i</sub> (Prescriptive Model)

Where:

PFTY = Profitability

TEAD = Technology Adaptation

EXPL = Exploration

COLL = Collaboration

The regression results indicate that technology adaptation and collaboration are statistically significant and are therefore retained in the prescriptive model, while exploration is not statistically significant. This implies that improvements in technology adaptation and collaboration will lead to corresponding increases in profitability. Specifically, a one-unit increase in technology adaptation and collaboration will increase profitability by 0.082 units and 0.452 units respectively, with collaboration having the greatest effect. Based on these findings, the null hypothesis, which states that innovation strategy dimensions have no significant effect on profitability, is rejected, as the ANOVA shows statistical significance with p values less than 0.05

### **Discussion of Findings**

The empirical evidence confirms that innovative strategies exert a significant positive effect on profitability levels within manufacturing MSMEs. The findings demonstrate that when MSMEs in the manufacturing sector deliberately implement innovation across multiple dimensions particularly product and process innovation they achieve measurable improvements in financial performance. This aligns with Gómez-Prado et al. (2022), who established that product innovation, when integrated with market intelligence, strengthens competitive positioning and directly enhances profitability. Similarly, Farida and Setiawan (2022) corroborated that process and product innovations generate competitive advantages that translate into superior business performance and profitability. For manufacturing MSMEs operating with constrained resources, these innovation dimensions prove especially valuable, as they enable firms to differentiate offerings, reduce production inefficiencies, and capture greater market share – ultimately driving profit margins upward even in competitive environments.

Further reinforcing this relationship, Masrom et al. (2022) demonstrated that innovation functions as a critical mediating mechanism between operational excellence initiatives such as total quality management and profitability outcomes in manufacturing contexts. Their research revealed that technological and process innovations enhance production efficiency, reduce waste, and improve responsiveness to market demands, thereby generating sustained financial gains. This finding resonates strongly with the current study's results, which indicate that manufacturing MSMEs adopting systematic innovation strategies experience accelerated profitability growth compared to non-innovating counterparts. Additionally, Yannan et al. (2022) extended this understanding

by showing that when innovation strategies incorporate sustainability dimensions such as green manufacturing practices profitability improves through enhanced brand reputation and alignment with evolving consumer preferences. These collective insights affirm that innovation is not merely an operational enhancement but a strategic driver of financial performance in manufacturing MSMEs.

The significance of innovation strategies on profitability extends beyond conventional operational improvements to encompass market-facing innovations that reshape revenue generation. Hussain et al. (2020) established that marketing innovation strategies substantially influence profitability by building sustainable brand equity a finding equally applicable to manufacturing MSMEs seeking to penetrate competitive markets. When MSMEs innovate in distribution channels, pricing models, or customer engagement approaches, they unlock new revenue streams and improve customer retention, directly boosting bottom-line results. Complementing this, Barao et al. (2022) demonstrated that service innovation such as after-sales support or customized solutions enhances profitability even in product-centric manufacturing environments. These findings collectively illustrate that innovation strategies operate multidimensionally within manufacturing MSMEs, simultaneously optimizing internal processes and external market interactions to generate compounding profitability effects that transcend isolated operational improvements.

The resilience of the innovation-profitability relationship becomes particularly evident under volatile market conditions, further validating its significance for manufacturing MSMEs. Kim (2023) found that firms employing flexible innovation strategies maintain profitability during periods of market uncertainty a critical advantage for MSMEs with limited financial buffers. Similarly, Xia et al. (2021) observed that innovation strategies preserve their positive influence on profitability by fostering organisational adaptability. For manufacturing MSMEs navigating supply chain disruptions, fluctuating input costs, and competitive pressures, these findings underscore innovation not as a discretionary investment but as a fundamental survival and growth mechanism that consistently elevates profitability despite external challenges.

The alignment of these findings with Diffusion of Innovation Theory (DIT) provides a robust theoretical foundation for understanding why innovation strategies significantly enhance profitability in manufacturing MSMEs. According to Dearing and Cox (2018), DIT explains how innovations spread through social systems via communication channels over time, with adoption rates influenced by perceived relative advantage a construct directly reflected in the profitability gains observed among innovative MSMEs. As manufacturing MSMEs recognize the relative financial advantage of adopting innovations evidenced by peers' improved profit margins they accelerate adoption, creating diffusion cascades that normalize innovation as a profitability driver within industrial clusters. This dynamic is further validated by Siregar et al. (2024), who demonstrated that MSMEs situated within innovation-rich ecosystems experience faster diffusion rates and correspondingly higher profitability returns. Consequently, the

empirical confirmation that innovation strategies significantly elevate profitability in manufacturing MSMEs not only affirms practical business imperatives but also exemplifies DIT's core proposition: innovations delivering observable economic advantages achieve rapid adoption and sustained integration precisely because they generate measurable financial returns thereby transforming innovation from an abstract concept into a tangible engine of profitability growth.

### **Conclusion and Recommendations**

This study evaluated the effect of innovation strategies on profitability of selected MSMEs in Lagos State Nigeria. Innovation strategies exerted significant positive influence on profitability, underscoring the value of deliberate innovation efforts in driving sustainable business results.

Based on the findings of this study, the following recommendations should be given adequate attention by the management.

1. management of manufacturing MSMEs in Lagos State should institutionalise a structured innovation strategy framework that deliberately allocates resources toward product, process, and organisational innovations to enhance profitability.
2. Specifically, firms should establish dedicated innovation budgets, create cross-functional innovation teams, and implement systematic idea-generation mechanisms such as suggestion schemes or innovation workshops.
3. Given Lagos State's competitive manufacturing landscape and infrastructural challenges, management should prioritize process innovations that reduce energy consumption and minimize waste critical cost drivers in the Nigerian context to directly improve profit margins while maintaining product quality standards demanded by local and export markets.
4. We recommend adequate monitoring of MSMEs by regulatory bodies to ensure best industry practices.

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