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Strategic Firm Resources and Innovative Performance of Food and Beverage Manufacturing Companies in Lagos State, Nigeria

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Abstract

The decline in innovative performance among food and beverage manufacturing companies, evidenced by reduced outputs in product development, market creation, process optimization, and service delivery, stems largely from inadequate deployment of strategic firm resources, including employee skill development, workplace support systems, technology infrastructure, and competitive benefit structures. While prior research has established the general importance of strategic resources for firm performance, this study addresses a critical gap by empirically examining their specific impact on innovation within Nigeria's food and beverage sector, employing a robust methodological approach involving a survey of 474 management-level respondents from leading Lagos-based firms, Data, collected through a validated questionnaire and analyzed using descriptive and multiple regression techniques at a 5% significance level, achieving a 95.5% response rate and demonstrating strong reliability metrics (Cronbach's α = 0.719-0.861). The multiple regression analysis revealed statistically significant positive effects (Adj.R^2 = 0.516, $p<0.05$), confirming that strategic firm resources substantially enhance innovation performance. The study concluded that optimizing these resources enhances product, process, market-creating, and service innovation, recommending that management embed innovation-driven practices into resource management to improve efficiency, customer satisfaction, and sustainable growth in a competitive industry.

Background to the Study

The food and beverage manufacturing sector face significant innovation challenges across global markets, with distinct regional variations in both obstacles and opportunities (Nasseri & Singh, 2024). In developed economies like the United States and Europe, companies struggle with technological integration and regulatory compliance, where stringent food safety standards and legacy production systems create barriers to adopting Industry 4.0 solutions (Nasseri & Singh, 2024; Robertson et al., 2023). The European market, particularly the UK, demonstrates additional complexities from Brexit-related uncertainties and rigid market structures that hinder responsive innovation (Ding & Li, 2021; Gotham et al., 2021). Meanwhile, emerging markets in Asia and Africa contend with more fundamental constraints. Afghanistan's F&B manufacturing sector struggles with security disruptions and infrastructure deficits (Nasseri & Singh, 2024), while Nigerian firms face technological gaps and investment shortages (Awoleye et al., 2020). Even resource-rich nations like Russia experience innovation stagnation due to geopolitical isolation and supply chain disruptions (Udeagha & Muchapondwa, 2023), illustrating how macroeconomic and political factors disproportionately impact innovation capacity in different regional contexts.

The F&B sector's global innovation underperformance stems largely from inadequate strategic resource allocation, particularly in four critical areas: human capital development, technological infrastructure, organizational support systems, and financial capacity for innovation. Employee skill gaps persist worldwide, with US firms struggling to reskill workers for advanced manufacturing roles (Leung & Sharma, 2021), while African companies face broader talent shortages (Asenge et al., 2023). Technological adoption varies dramatically, where European firms integrate automation but face interoperability challenges (Gotham et al., 2021), whereas Nigerian manufacturers lack basic digital infrastructure (Effiom & Edet, 2022). Workplace support systems are underdeveloped even in advanced markets, Canadian firms show poor cross-functional collaboration (Weiss et al., 2021), while Asian companies lack innovation-enabling organizational cultures (Choudhury et al., 2021). Financial constraints on R&D appear universal but manifest differently, from US firms' short-term profit pressures (Choi et al., 2022) to African companies' limited access to growth capital (Telukdarie et al., 2023). These resource deficiencies collectively undermine all innovation dimensions - product, process, market, and service innovation creating a global competitiveness crisis in the sector.

The innovation ecosystem reveals stark regional disparities in ecosystem support and policy environments. North America benefits from robust venture capital markets and university-industry partnerships but suffers from regulatory fragmentation (Nasseri & Singh, 2024). Europe's advanced innovation policies are undermined by bureaucratic complexity and market saturation (Ramzan et al., 2023). Asia presents a mixed picture, while China and India progress rapidly, countries like Afghanistan and Bangladesh lag due to infrastructure gaps (Chowdhury et al., 2022; Nasseri & Singh, 2024). Africa's potential remains constrained by systemic issues including financing gaps, with South

Africa and Nigeria showing particular vulnerability despite their economic prominence (Asenge et al., 2023; Telukdarie et al., 2023). Russia's innovation collapse post-sanctions demonstrates how geopolitical factors can devastate sectoral progress (Udeagha & Muchapondwa, 2023). These regional variations highlight the need for context-specific innovation strategies that account for local resource availability, market conditions, and policy environments while addressing common global challenges like sustainability pressures and digital transformation requirements.

This study addresses a critical knowledge gap in the existing body of knowledge by demonstrating how strategic resources particularly human capital, technological infrastructure, organizational support systems, and financial resources, collectively drive innovation performance in emerging market conditions. The research provides much-needed empirical evidence on resource-innovation dynamics in Africa's largest economy, where sector-specific studies were previously lacking (Awoleye et al., 2020). Examining all four innovation dimensions (product, process, market and service) simultaneously, the study offers a more comprehensive understanding than prior fragmented approaches (Chung, 2022; Lee, 2023). Most importantly, it establishes actionable insights for resource-constrained environments, showing how strategic investments in key capability areas can overcome systemic innovation barriers prevalent in developing economies. These findings fill a crucial gap between innovation theory developed in advanced economies and the practical realities facing manufacturers in emerging markets, providing a framework for sustainable competitive advantage in challenging business environments.

Review of Literature

Innovative Performance

Innovative performance represents an organization's capacity to conceive, develop, and implement novel ideas, products, processes, or services that create substantial value and competitive differentiation (Xu et al., 2023). This multidimensional construct encompasses both radical breakthroughs and incremental improvements, reflecting a continuum from disruptive market-creating innovations to systematic process optimizations (Shkolnykova & Kudic, 2022; Zhang et al., 2024). The operationalization of this concept in the current study focuses on four key dimensions: innovative product development, market-creating innovation, process innovation, and service delivery innovation. These dimensions collectively capture an organization's ability to translate creative potential into measurable business outcomes, including enhanced operational efficiency, market expansion, and customer value creation (Wang et al., 2022; Yu et al., 2023).

The study adopts a comprehensive framework for assessing innovative performance, beginning with innovative product development. This dimension encompasses three distinct manifestations: the creation of entirely new products addressing unmet needs (Wang et al., 2022), the enhancement of existing offerings (Yu et al., 2023), and the adaptation of products for new market segments (Shao et al., 2022). Market-creating

innovation extends this perspective by examining how organizations develop novel value propositions that either disrupt existing markets or establish entirely new ones (Oanh et al., 2023). This includes strategic adaptations for underserved segments (Huo et al., 2023) and innovative business models that capitalize on emerging opportunities (Setiyono et al., 2022). The framework further incorporates process innovation, which focuses on internal operational improvements through novel methodologies, technologies, or workflow optimizations that enhance efficiency and quality (Gao et al., 2022; Ndwiga et al., 2023).

The final dimension of innovative service delivery examines how organizations transform their customer engagement models through novel service architectures and delivery mechanisms (Kuriakose et al., 2023). This encompasses the entire service value chain, from initial design and planning to implementation and continuous improvement (Witter et al., 2023). The relational aspect of service innovation is particularly crucial, emphasizing the need to align service offerings with evolving customer expectations through dynamic interactions and feedback loops (Onwujekwe et al., 2022). Together, these four dimensions provide a robust framework for evaluating organizational innovation capabilities, recognizing that sustained competitive advantage increasingly depends on an organization's ability to excel across multiple innovation types while maintaining strategic alignment between product, market, process, and service innovations.

Strategic Firm Resources

Strategic firm resources constitute the distinctive assets, capabilities, and competencies that enable organizations to establish and sustain competitive advantage within their industry (Nwachukwu & Chladkova, 2019). These resources, characterized by their value, rarity, inimitability, and non-substitutability, form the foundation for superior organizational performance and long-term market positioning (Breuillot et al., 2022). As multidimensional constructs, they encompass financial capital, human capital, technological infrastructure, organizational culture, and reputational capital, all of which collectively enhance a firm's resilience and capacity for value creation (Addaquay et al., 2023). In this study, strategic firm resources are operationalized through four critical dimensions: employee skill development, workplace social support systems, human resource technology infrastructure, and employee benefits structure, each representing essential components of organizational capability building.

The first dimension, employee skill development, refers to systematic organizational investments in enhancing workforce competencies through targeted training, continuous learning initiatives, and structured career development programs (Khan et al., 2023; Losada-Otálora & Andonova, 2022). Workplace social support systems constitute the second dimension, encompassing both tangible and intangible support mechanisms that foster employee well-being, collaboration, and organizational cohesion (Bernardino et al., 2023; Konrad et al., 2022). The third dimension, human resource technology infrastructure, includes the integrated suite of digital tools, platforms, and

systems that optimize HR processes, enhance decision-making, and drive operational efficiency (Kwiotkowska, 2022; Majeed et al., 2022). These technological assets range from basic hardware and software solutions to advanced analytics and AI-driven platforms that transform workforce management (Padilla-Cáceres et al., 2023).

The fourth dimension, employee benefits structure, represents the comprehensive framework of financial and non-financial rewards that organizations provide to attract, retain, and motivate talent (Rupia & Chai, 2022; Usman et al., 2022). This includes compensation systems, health benefits, retirement plans, and other welfare provisions that collectively contribute to employee satisfaction and organizational commitment (Kristensen et al., 2022). Together, these four dimensions form an integrated system of strategic resources that enable firms to develop distinctive capabilities, foster innovation, and maintain competitive advantage in dynamic market environments. The interdependence of these resource dimensions highlights the importance of a holistic approach to resource management, where investments in human capital, technological infrastructure, and supportive work environments synergistically drive organizational performance and sustainable growth.

Strategic Firm Resources and Innovative Performance

The study of Hu and Wang (2021) underscores the significance of firm resources in driving proactive environmental initiatives, which can contribute to innovative strategies for sustainability. Hussain and Waheed (2019) applied the Resource-Based View (RBV) to examine the relationship between strategic resources and firm performance. Their study provides empirical evidence supporting the notion that firm resources play a crucial role in enhancing firm performance, highlighting the importance of leveraging internal capabilities for innovation and competitive advantage. Khanra et al. (2022) explored the resource-based view of green innovation as a strategic firm resource. Their study found that green innovation significantly enhances firm performance, indicating that environmental sustainability initiatives, as a firm resource, can drive innovative performance and competitive advantage. Also, Sánchez et al. (2015) analyzed the mediating effect of strategic human resource practices on knowledge management and firm performance. Their results revealed that strategic HR practices significantly enhance knowledge management, which in turn boosts firm performance, emphasizing the role of HR as a critical resource in driving innovation. Likewise, Le et al. (2023) examined talent management at science parks, focusing on firm-university partnerships as a strategic resource for competitive advantage in the information technology sector in Vietnam. Their study found that such partnerships significantly enhance innovative performance, highlighting the importance of external collaborations as valuable firm resources.

Ahmad et al. (2023) explored the impact of strategic employee skill development management practices on firm performance, with supply chain management as a mediator. Their study found that SHRM practices significantly enhance firm performance through improved supply chain management, highlighting the importance

of strategic HR resources in driving overall organisational success. Also, Duangekanong (2021) studied the use of strategic resources management in Thailand's high-tech firms and its impact on non-financial outcomes. The results revealed that strategic resources practices significantly improve non-financial outcomes, suggesting that strategic SHR resources are crucial for fostering innovation in high-tech industries. Likewise, Ghlichlee and Goodarzi (2023) investigated the mediating role of intellectual capital in the relationship between strategic human resource practices and new product development performance. Their study found that intellectual capital significantly enhances new product development, indicating that strategic HR practices are vital resources for fostering innovation. Similarly, Grimmer et al. (2017) examined the impact of resources and strategic orientation on small retail firm performance. Their findings suggest that both tangible and intangible resources, when strategically aligned, significantly enhance firm performance, underscoring the importance of a balanced resource portfolio in driving innovation.

Moreso, Nakagawa et al. (2022) investigated the role of workplace social support systems in trajectories of functional health following stroke. While their study provides insights into health outcomes, it does not directly address the relationship between firm resources and innovative performance, thus offering limited insights into this specific area of inquiry. Also, Nonyelum and Owan (2022) examined the management of financial and non-employee benefits structure by school principals and its correlation with institutional goal fulfillment in secondary schools. Although their study addresses resource management in educational settings, it does not directly investigate the influence of firm resources on innovative performance in other industries. Nurjaman et al. (2021) proposed a research framework exploring the relationship between strategic agility and firm performance in the manufacturing industry. While their study contributes to understanding organisational dynamics, it does not directly analyze the role of firm resources in driving innovation and performance.

Theoretical Review

This study is anchored on the Resource-Based View (RBV). The Resource-Based View (RBV), originally conceptualized by Wernerfelt (1984) and refined by Barney (1991), provides a robust theoretical framework for understanding how firms derive competitive advantage through unique, strategically valuable resources. This perspective posits that sustainable competitive advantage stems from possessing and effectively deploying resources that are valuable, rare, inimitable, and non-substitutable (VRIN) (Barney, 1991; Lubis, 2022). These resources encompass both tangible assets, such as specialized manufacturing equipment, and intangible assets, including proprietary knowledge, brand equity, and human capital. The RBV framework suggests that firms should focus on cultivating and leveraging these strategic resources to achieve long-term market differentiation and superior performance (Barney, 1991).

The RBV operates on several fundamental assumptions that distinguish it from other strategic management theories. First, it assumes firm heterogeneity, recognizing that

organizations differ significantly in their resource endowments and capabilities (Zahra, 2021). Second, it presumes resource immobility, implying that critical resources cannot be easily transferred or replicated by competitors. Third, it acknowledges imperfect factor markets, where strategic resources are not uniformly accessible to all firms (Barney, 1991). These assumptions collectively underscore the importance of internal resource development and deployment in achieving competitive advantage. Proponents of RBV emphasize the critical role of dynamic capabilities the ability to adapt and reconfigure resources in response to market shifts as essential for sustaining competitive advantage in volatile environments (Teece et al., 1997; Chatterjee et al., 2023).

The RBV offers particularly valuable insights for analyzing the strategic resources and innovative performance of food and beverage manufacturing firms in Lagos State, Nigeria. In this highly competitive and resource-constrained environment, firms must leverage unique capabilities such as supply chain efficiency, technological infrastructure, and skilled workforce to drive innovation and maintain market position (Gerhart & Feng, 2021). The RBV's focus on internal resource heterogeneity and immobility provides a lens to examine how Lagos-based firms overcome challenges like regulatory constraints and market volatility. While critiques highlight limitations in resource valuation and dynamic interaction analysis (Priem & Butler, 2001; Kozlenkova et al., 2014), the RBV remains superior for this context due to its emphasis on firm-specific, difficult-to-replicate resources. Applying RBV, this study uncovers how strategic resource orchestration aligning tangible and intangible assets with market opportunities enables firms to achieve innovation-led growth in Nigeria's evolving food and beverage industry.

Methodology

This study adopted a positivist research philosophy, a deductive approach, and a survey research design. The population consisted of 5,107 management-level employees drawn from four selected food and beverage manufacturing firms located in Lagos State. Advisor's sample size determination table was adopted; a representative sample of 474 respondents was selected through a simple random sampling technique. Data were collected using a structured, pre-validated questionnaire with key variables assessed using a six-point Likert scale ranging from 6 (very high) to 1 (very low), with Cronbach's alpha reliability coefficients for the measured constructs ranging from 0.719 to 0.861. A high response rate of 95.5% was achieved. Data analysis involved both descriptive and inferential statistics, specifically multiple regression analysis, conducted at a 5% level of significance. The achieved response rate aligns with established research standards, as Dolinski et al. (2024) consider it appropriate for survey-based studies. Additionally, Johnson and Wislar (2012) suggest that response rates exceeding 60% are generally accepted in social science research, reinforcing the validity and reliability of the collected data.

Operationalization of Variables

In this study, the independent variable is strategic firm resources (X) measured using employee skill development, workplace social support systems, human resource

technology infrastructure and employee benefits structure, while innovative performance (Y) was measured using innovative product, market creating innovation, innovative process and innovative service delivery. The variables of this study are operationalized as shown below:

X = Strategic Firm Resources (SFR)
Y = Innovative Performance (IP)
Y = f(X)
$X = (x_1, x_2, x_3, x_4)$
X = Strategic Firm Resources (SFR)
x_1 = Employee Skill Development (ESD)
x_2 = Workplace Social Support Systems (WSSS)
x_3 = HR Technology Infrastructure (HRTI)
x_4 = Employee Benefits Structure (EBS)
$Y = (y_1, y_2, y_3, y_4)$
Y = Innovative Performance (IP)
y_1 = Innovative Product (IPd)
y_2 = Market Creating Innovation (MCI)
y_3 = Innovative Process (IPc)
y_4 = Innovative Service Delivery (ISD)

Functional Relationship

The functional model for the study variables is denoted in the equations below:

$y_1 = f(x_1, x_2, x_3, x_4)$ ---------- (eqtn.1)
$y_2 = f(x_1, x_2, x_3, x_4)$ ---------- (eqtn.2)
$y_3 = f(x_1, x_2, x_3, x_4)$ ---------- (eqtn.3)
$y_4 = f(x_1, x_2, x_3, x_4)$ ---------- (eqtn.4)
$Y = f(X)$ ---------- (eqtn.5)

Regression Model

The equations of the study based on the research hypotheses are as follows:

$IPd = \beta_0 + \beta_1 ESD + \beta_2 WSSS + \beta_3 HRTI + \beta_4 EBS + \varepsilon_i$ ---------- Eqn1
$MCI = \beta_0 + \beta_1 ESD + \beta_2 WSSS + \beta_3 HRTI + \beta_4 EBS + \varepsilon_i$ ---------- Eqn 2
$IPc = \beta_0 + \beta_1 ESD + \beta_2 WSSS + \beta_3 HRTI + \beta_4 EBS + \varepsilon_i$ ---------- Eqn 3
$ISD = \beta_0 + \beta_1 ESD + \beta_2 WSSS + \beta_3 HRTI + \beta_4 EBS + \varepsilon_i$ ---------- Eqn 4
$IP = \beta_0 + \beta_1 SFR + [ESD*WSSS*HRTI*EBS] + \varepsilon_i$ ---------- Eqn 5

Where:
$\beta_1 - \beta_4$ = Coefficient of the independent variables for objective one---------- (1)
$\beta_1 - \beta_4$ = Coefficient of the independent variables for objective two---------- (2)
$\beta_1 - \beta_4$ = Coefficient of the independent variables for objective three---------- (3)
$\beta_1 - \beta_4$ = Coefficient of the independent variables for objective four---------- (4)
$\beta_1 - \beta_5$ = Coefficient of the independent variables for objective five---------- (5)

β_0 = constant of the equation or constant term
$\beta_1 - \beta_5$ = Parameters to be estimated
εi = error or stochastic terms

Data interpretation and Discussion of Findings

A total of 474 questionnaires were distributed to senior management staff of selected food and beverage manufacturing companies in Lagos State, Nigeria. Of these, 453 were returned and found valid for analysis, representing a response rate of 95.5%. Descriptive statistical tools including percentages, means, and standard deviations were employed to summarize respondents' views on the research variables. These measures offered a comprehensive understanding of the data and facilitated the identification of relationships between the variables within the study's context. The study's hypotheses were tested using multiple linear regression analysis at a 5% significance level to examine the effect of Strategic Firm Resources (SFR) on each dimension of innovative performance. The descriptive analysis revealed notable differences in respondents' perceptions of SFR components and their influence on innovative performance, indicating that SFR can significantly shape innovation outcomes. Specifically, the study assessed the impact of employee skill development, workplace social support systems, human resource technology infrastructure, and employee benefits structure on innovative performance. The responses provided direct insights into the research questions, enabling the achievement of the study's objectives. The detailed results of these analyses are presented in Table 1.

Table 1: Summary of Multiple Regression Analysis for strategic firm resources and innovative performance

N	Model	*B*	T	Sig.	ANOVA (Sig.)	R	Adjusted R^2	F(4, 453)
453	(Constant)	20.726	5.430	.000	0.001[b]	0.721[a]	0.516	121.318
	Employee skill development	.506	2.974	.003				
	Workplace social support systems	.406	2.440	.015				
	Human resource technology infrastructure	.736	3.770	.000				
	Employee benefits structure	1.450	9.232	.000				
	a. Dependent Variable: Innovative Performance							
	b. Predictors: (Constant), Employee Benefits Structure, Employee Skill Development, Workplace Social Support Systems, Human Resource Technology Infrastructure							

Source: Researcher's Field Survey, (2025)

Table 1 shows the multiple regression analysis results for the effect of SFR dimensions on innovative performance in the selected food and beverage manufacturing companies in Lagos State, Nigeria. The result revealed that employee skill development (β = 0.506, t = 2.974, $p<0.05$), workplace social support systems (β = 0.406, t = 2.440, $p>0.05$), human resource technology infrastructure (β = .736, t = 3.770, $p<0.05$) and employee benefits

structure (β = 1.450, t = 9.232, p<0.05) all have a significant positive effect on innovative performance in the selected food and beverage manufacturing companies in Lagos State, Nigeria. The results of the analysis revealed that all SFR (employee skill development, workplace social support systems, human resource technology infrastructure and employee benefits structure) have positive significant effect on innovative performance of the selected food and beverage manufacturing companies in Lagos State, Nigeria. This suggests that employee skill development, workplace social support systems, human resource technology infrastructure and employee benefits structure are predictors of innovative performance in the selected food and beverage manufacturing companies in Lagos State, Nigeria. These variables significantly explain innovative performance in this study.

The correlation coefficient (R) value was 0.721 shows that there was a moderate positive relationship between SFR and innovative performance. The Adjusted R-squared ($Adj.\ R^2$) value was 0.516 suggests that 51.6% of the variations in innovative performance in the selected food and beverage manufacturing companies in Lagos State, Nigeria, are explained by the combinations SFR dimensions (employee skill development, workplace social support systems, human resource technology infrastructure and employee benefits structure). However, the remaining 48.4% of the variations are attributable to other factors not accounted for in the model. These results indicate that SFR, as the independent variable, plays a significant role in steering innovative performance within the selected food and beverage manufacturing companies. The predictive and prescriptive multiple regression models are thus expressed:

IPER = 20.726 + 0.506ESD + 0.406WSSS + 0.736HRTI + 1.450EBS + U_i--------Eqn i (Predictive Model)

IPER = 20.726 + 0.506ESD + 0.406WSSS + 0.736HRTI + 1.450EBS + U_i ----Eqn i (Prescriptive Model)

Where:
IPER = Innovative Performance
ESD = Employee Skill Development
WSSS = Workplace Social Support Systems
HRTI = Human Resource Technology Infrastructure
EBS = Employee Benefits Structure

The regression model revealed that if SFR were held constant at zero, innovative performance of the selected food and beverage manufacturing companies in Lagos State, Nigeria will be 20.726. indicating that in the absence of SFR, innovative performance of the will be 20.726, indicating a positive innovative performance. From the predictive and prescriptive model, all four dimensions of the SFR (employee skill development, workplace social support systems, human resource technology infrastructure and employee benefits structure) have significant positive effect on the innovative

performance. From the prescriptive model, an improvement in employee skill development, workplace social support systems, human resource technology infrastructure and employee benefits structure would increase innovative performance by 0.506, 0.406, 0.736 and 1.450 percent respectively. These results suggest that employee skill development, workplace social support systems, human resource technology infrastructure and employee benefits structure are predictors of innovative performance among selected food and beverage manufacturing companies in Lagos State, Nigeria. Thus, food and beverage manufacturing companies in Lagos State should place importance on these variables in their strategic research and development to enhance innovative performance. The *F*-statistics ($df = 4, 498$) = 121.318 at $p<0.05$ indicated that the overall model is significant for predicting the effect of SFR on innovative performance. This implies that the regression model is a good fit. Also, as the p-value is less than 0.05, it implies that effect of SFR on innovative performance is significant. Based on the *R*-squared and *F*-statistics results, the null hypothesis (H_0) which states that strategic firm resources have no significant effect on innovative performance was rejected.

Discussion

The hypothesis test confirmed that strategic firm resources including employee skill development, workplace social support systems, human resource technology infrastructure, and employee benefits structure have a statistically significant effect on the innovative performance of food and beverage manufacturing firms in Lagos State, Nigeria. This finding carries substantial conceptual, empirical, and theoretical implications. Conceptually, the study provides a clear framework for understanding how firm-specific resources drive innovation. Empirically, the results align with prior research, such as Hu and Wang (2021), who emphasized the role of firm resources in fostering proactive environmental strategies, and Hussain and Waheed (2019), who applied the Resource-Based View (RBV) to demonstrate how internal capabilities enhance competitive advantage. Additionally, Khanra et al. (2022) and Sánchez et al. (2015) reinforced these findings, showing that strategic human resource practices and green innovation significantly improve firm performance by leveraging internal and external knowledge assets.

Further empirical support comes from Ahmad et al. (2023), who found that strategic skill development enhances firm performance through optimized supply chain management, and Duangekanong (2021), whose research on high-tech firms in Thailand highlighted the importance of strategic resource management in driving innovation. Similarly, Ghlichlee and Goodarzi (2023) and Grimmer et al. (2017) demonstrated that intellectual capital and well-aligned tangible and intangible resources are critical for fostering innovation and sustaining competitive advantage. However, some studies, such as Nakagawa et al. (2022) and Nonyelum and Owan (2022), while valuable in their respective contexts, did not directly examine the link between firm resources and innovative performance, underscoring the need for industry-specific research like this study.

The findings strongly support the theoretical foundation of the Resource-Based View (RBV), which posits that firms with valuable, rare, inimitable, and non-substitutable resources achieve superior innovation outcomes. The study validates that strategic firm resources particularly skilled human capital, advanced HR technology, and supportive workplace structures enhance a firm's ability to innovate, adapt to market changes, and sustain long-term competitiveness. Moreover, the research underscores the importance of resource orchestration, emphasizing that merely possessing resources is insufficient; firms must strategically integrate and deploy them to maximize innovative potential. Given the robust conceptual, empirical, and theoretical evidence, this study rejects the null hypothesis (H01) and concludes that strategic firm resources significantly influence innovative performance. These insights offer practical guidance for firms seeking to optimize their resource allocation to drive innovation and maintain a competitive edge in dynamic markets.

Conclusion and Recommendations

This study examined the impact of strategic firm resources on innovative performance within Nigeria's food and beverage manufacturing sector, revealing statistically significant positive relationships across all measured dimensions. The empirical results demonstrate that employee skill development, workplace social support systems, human resource technology infrastructure, and employee benefits structure collectively serve as critical enablers of innovation, reinforcing the foundational principles of the Resource-Based View (RBV). These findings substantiate RBV's proposition that unique, difficult-to-replicate organizational resources generate sustainable competitive advantages, particularly in dynamic markets requiring both innovation and operational efficiency. The study makes significant conceptual contributions by developing and validating an integrated framework that bridges previously disconnected research streams in strategic management and innovation studies. As the first known application of this comprehensive model within Nigeria's manufacturing context, the research provides novel empirical evidence that advances theoretical understanding while serving as a valuable reference for future investigations in management science and related disciplines.

The findings yield important practical implications for industry leaders, suggesting that food and beverage manufacturers should institutionalize systematic approaches to strategic resource management to drive innovation. Management teams are advised to prioritize continuous human capital development through targeted upskilling programs, foster collaborative work environments through structured support systems, and make strategic investments in digital HR infrastructure. Furthermore, organizations should design competitive compensation and benefits packages that not only attract top talent but also incentivize innovative behaviors. These recommendations are particularly salient given the sector's unique operational constraints, including stringent regulatory requirements, product perishability considerations, and evolving consumer safety standards. The study underscores the necessity of embedding innovation capabilities into core organizational processes rather than treating them as discrete

initiatives, proposing that firms develop cross-functional innovation task forces to align human, technological, and financial resources with strategic objectives. Such integrated approaches enable firms to transform resource advantages into market-differentiating innovations while maintaining operational resilience.

While providing valuable insights, this study acknowledges several contextual limitations that suggest productive avenues for future research. The industry-specific nature of the findings invites comparative studies across other manufacturing sectors to assess the generalizability of the resource-innovation relationship. Three particularly promising research directions emerge from this work: First, investigations into how organizational culture moderates the relationship between workplace support systems and innovation outcomes could yield important contextual insights. Second, research examining the role of emerging technologies like AI and IoT in augmenting HR infrastructure's innovation potential would help organizations future-proof their capabilities. Third, systematic analysis of policy environments could reveal how government regulations and incentives amplify or constrain resource-driven innovation. Future studies should employ longitudinal designs to capture the evolving nature of these relationships and incorporate multi-level analyses to understand micro-macro linkages. Despite its limitations, this research provides a robust foundation for understanding how strategic resource orchestration drives innovation in emerging market manufacturing contexts, offering both theoretical and practical contributions to the field of strategic management.

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