

The Impact of Knowledge Management Processes on Innovation Implementation: Nigerian Manufacturing

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ABSTRACT: *The Nigerian manufacturing industry significantly influences national economic diversification and growth. However, it faces several challenges, including insufficient infrastructure, talent shortages, and foreign direct investment. The study investigates how KM processes impact innovation in the Nigerian industry. We surveyed 424 manufacturers and found that better KM processes (acquisition, creation, application, and sharing) lead to improved innovation implementation. The results demonstrated that KM processes considerably impacted innovation implementation in the Nigerian manufacturing sector. Knowledge acquisition, creation, application, sharing, and storage all have a favourable effect on innovation implementation ability. The findings emphasise the significance of adequate information flow, investment in research and development, and technological capabilities for promoting innovation. This study shows the link between KM practices and innovation outcomes in the Nigerian industry. This study has implications for improving competitiveness and sustainability. A work environment that prioritizes continuous learning, collaboration, and technology for knowledge management would be beneficial.*

KEYWORDS: knowledge management, knowledge management processes, and innovation implementation, manufacturing.

INTRODUCTION

Manufacturing is a process that allows organisations to generate revenue by combining knowledge management (KM) and resources to transform the customers' needs into tangible products and intangible services for sale at a price to satisfy needs (Duru et al., 2021). It is critical for Nigerian economic diversification and long-term success (Nwankwo & Gbadegesin,

2019). Manufacturing helps to create jobs, generate wages, and boost general economic growth. KM practices are linked with daily manufacturing activities and are susceptible to complex work-related problems (Chen, 2022). According to Li et al. (2020), implementing effective KM practices can significantly and positively impact an organisation's dynamic capabilities. Nigeria has acknowledged the significance of diversifying its economy beyond oil and gas, and the manufacturing sector has been designated as a crucial driver of this diversification strategy.

The manufacturing industry has substantially contributed to Nigeria's GDP. Manufacturing makes up 8% of Nigeria's GDP and provides jobs (NBS, 2021). Effective Nigerian manufacturing can absorb a considerable portion of the country's expanding workforce while lowering unemployment rates. However, the sector has experienced obstacles such as insufficient infrastructure and talent shortfalls, which have limited its employment potential. Limited foreign direct investment in manufacturing could have facilitated technology transfer, skill development, and industrial growth. The Nigerian government has enacted policies recently to attract FDI inflows into the sector, resulting in more significant investment and expansion. The Nigerian manufacturing sector is diversified, with sub-sectors including food processing, textiles and garments, pharmaceuticals, chemicals, cement, and vehicles. However, the sector encounters challenges due to raw material import dependency, restricted access to capital, and high energy costs that negatively impact entrepreneurial performance.

Entrepreneurship in Nigeria encounters several challenges, including inadequate road infrastructure, social instability, insufficient financial backing, corruption, and restricted market scope (Edeh, 2020). The obstacles KM approaches in Nigerian manufacturing face include inadequate tools and technology, a lack of a centralised strategy, mental barriers to managing tacit knowledge, and cultural barriers to recording and sharing knowledge (Akinbo, 2023). According to the latter author, the solutions for these problems are a centralised KM policy, improved tools and technology, intelligent management of tacit knowledge, and cultural acceptance of knowledge sharing. Effective KM in projects in Nigerian manufacturing is hampered by several factors, such as the inability to track project information, a lack of management support, and a lack of skill in using KM systems. It is advised to put into practice initiatives like stakeholder development and training, governmental funding for knowledge tools, and increased information exchange to address these issues critical for both the short and long-term KM competencies through training and commitment from stakeholders (Akinbo, 2023).

Nigerian manufacturing organisations must overcome two critical obstacles when implementing Knowledge Management: process, infrastructural, and cultural problems. Adopting KM is challenging for many firms because of its unique organisational culture. Managers must consider how KM initiatives affect their staff members' happiness and well-being. Effective KM is critical for manufacturing innovation and competitiveness (Ufua & Alufohai, 2017). However, Nigerian manufacturing enterprises face knowledge transfer and documentation issues, losing key insights (Ajide & Raheem, 2020). Also, insufficient investment in research and development activities limits innovation. The sector also has a skills

shortage and infrastructure inadequacies, which impede the implementation of innovative methods (Obi et al., 2019).

Nigeria's manufacturing industry has difficulties in efficiently transmitting and documenting knowledge. Structured KM practices are lacking, losing key insights and lessons learned. This impedes the deployment of innovation and continual improvement within manufacturing organisations. Inadequate funding in research and development has hampered sector innovation. Several studies have attempted to investigate the causes of Nigerian manufacturing inefficiencies, but none have considered the impact of KM processes on innovation implementation in Nigerian manufacturing. No existing literature focuses mainly on the importance of KM processes and their impact on innovation implementation in the Nigerian manufacturing sector. However, more empirical studies that mainly study the direct link between KM implementation and innovation are needed within Nigerian manufacturing firms (Babatunde et al., 2022).

This study attempts to fill a significant knowledge gap in understanding how KM processes might drive innovation implementation in the Nigerian manufacturing industry. The study aims to give insights and recommendations to guide policy decisions and managerial practices by investigating the relationship between KM methods and innovation outcomes. This research is critical for improving Nigeria's manufacturing sector's competitiveness and sustainability, ultimately contributing to economic growth and development.

Research Aims and Objectives

This research aims to analyse the impact of the KM processes on innovation implementation in Nigerian manufacturing, to achieve a competitive edge. The study seeks to determine how the industry can encourage technological advancement, enhance productivity, and increase global competitiveness. However, poor KM strategies and inadequate innovation implementation hinder its progress in Nigerian manufacturing. According to Duman and Akdemir (2021), implementing industry technologies can enhance the efficiency and competitiveness of businesses.

The focus is investigating whether the inadequate implementation of KM processes is accountable for poor innovation implementation in Nigerian manufacturing. A quantitative approach will be utilised to gather data from the Manufacturing Association of Nigeria (MAN) to address this research question effectively. The study will employ quantitative methods using survey questions to obtain data from MAN members. Descriptive analysis will be used to analyse the data. In contrast, multi-linear regression analysis will be employed to test the hypothesis and determine the impact of various KM factors on Nigerian manufacturing.

Envisioned Impact of This Study

This study aims to enhance the general knowledge by shedding light on the impact of KM processes on innovation implementation for sustainable manufacturing from an African perspective. The study will offer valuable insights into how Nigerian manufacturers can leverage KM processes and innovation implementation to gain a competitive edge, despite the

challenges faced by the Nigerian manufacturing industry, such as a lack of modern equipment and KM expertise. The findings can be used to develop KM strategies that can improve the performance of Nigeria's manufacturing sector and promote economic growth and development. Additionally, the study will provide theoretical support for investing resources in sustainable KM-based manufacturing and act as a foundation for future researchers to gather evidence on the role of KM practices in the Nigerian manufacturing sector.

Future research could expand the scope of this study to include other emerging nations and manufacturing industries. The generalizability of the findings can be increased by reproducing the study in different settings.

Knowledge Management and Innovation Implementation

KM facilitates organisational innovation by effectively managing and applying knowledge assets (Gorelick & Tantawy-Monsou, 2005). KM encompasses processes such as knowledge acquisition, creation, application, sharing, and storage, which are indispensable for fostering innovation and enhancing performance. According to Rezaei et al. (2021), KM practices and human resources are considered the most valuable assets for organisations. An organisation's essential resources are KM and human resources to remain competitive (Banihashemi et al., 2023). Theoretical perspectives on KM emphasise integrating people, processes, and technology to improve the organisational capacity for learning, knowledge creation, and innovation implementation (Naderi & Ghasemi, 2019).

As a subset of KM, organisational learning focuses on how organisations acquire, create, and transfer knowledge to enhance capabilities and foster innovation. It involves the creation of a learning culture, sharing knowledge, and incorporating new information into organisational practices (Naderi & Ghasemi, 2019). Organisational learning capability mediates between KM processes and innovation implementation capacity, enhancing the organisation's ability to absorb and apply new knowledge (Naderi & Ghasemi, 2019). Knowledge management significantly enhances innovation capability (Edeh et al., 2022).

Innovation implementation capacity refers to an organisation's ability to implement innovative ideas effectively and convert them into tangible outcomes. KM processes significantly enhance innovation implementation capacity by facilitating knowledge acquisition, creation, application, sharing, and storage (Paiva & Ezequiel, 2021). Robust KM practices support a culture of continuous learning, foster creativity, and efficiently use knowledge resources for innovation (Spender & Scherer, 2019).

Various factors influence the successful implementation of innovation within organisations. These factors include adequate information flow, investment in research and development (R&D), technological capabilities, organisational culture, sharing of knowledge, and cooperation (Nwankwo & Gbadegesin, 2019). However, infrastructure deficiencies such as unreliable power supply and transportation bottlenecks can impede the adoption of advanced manufacturing technologies and innovation (Obi et al., 2019).

Effective KM processes contribute to organisational learning, innovation implementation capacity, and successful innovation outcomes. By integrating people, processes, and technology, organisations can establish a culture of continuous learning, promote knowledge sharing, and leverage knowledge assets to drive innovation and enhance performance. In a dynamic business environment, addressing infrastructure deficiencies and fostering cooperation further enhance the implementation of innovative ideas, ensuring that organisations remain competitive. According to Miković et al. (2020), knowledge management has the potential to impact both incremental and transformative innovations in organisations.

KM and Innovation Implementation Challenges in Nigeria

Effective KM is critical for manufacturing innovation and competitiveness (Ufua & Alufohai, 2017). However, Nigerian manufacturing enterprises face knowledge transfer and documentation issues, losing key insights (Ajide & Raheem, 2020). Furthermore, insufficient investment in research and development activities limits innovation. The sector also has a skills shortage and infrastructure inadequacies, which impede the implementation of innovative methods (Obi et al., 2019). Nigeria's manufacturing industry has difficulties in efficiently transmitting and documenting knowledge. Structured KM practices are lacking, losing key insights and lessons learned. This impedes the deployment of innovation and continual improvement within manufacturing organisations. Inadequate funding in research and development has hampered sector innovation. Inadequate research and development funding has hampered Nigerian manufacturing sector innovation development.

Many Nigerian manufacturing companies struggle to dedicate money to research and development, limiting their ability to produce innovative products, enhance processes, and incorporate technological advances. Manufacturers have significant obstacles due to inadequate infrastructure, which includes unreliable power supply, transportation bottlenecks, and restricted access to high-quality connectivity. According to Aladejebi (2020), entrepreneurs in Nigeria encounter various obstacles, including insufficient training, limited access to start-up funds, and inadequate family support. For example, female entrepreneurs encounter various challenges, including gender bias, financial limitations, work-life balance struggles, inadequate infrastructure support, unfavourable business and political environments, limited access to entrepreneurship education, and personal hurdles (Nwachwukwu et al., 2021). Financial literacy is crucial for developing women-owned businesses, particularly during the start-up phase. Research shows that financial skills are vital for the success and efficient functioning of female-owned businesses (Egbo et al., 2020). Many obstacles hinder young people from participating in entrepreneurial endeavours. These include inadequate education, negative societal views toward youth entrepreneurship, limited access to financial resources, and a less-than-supportive entrepreneurial culture. As a result of these challenges, it is crucial to promote entrepreneurship education, foster more supportive attitudes toward young entrepreneurs in society, and improve access to financial resources (Radebe, 2019).

These shortcomings impede the adoption of sophisticated manufacturing technology and hamper the sector's ability to develop and compete globally. While the literature study provides a good framework for understanding the relationship between knowledge management

practices and innovation implementation in the Nigerian manufacturing sector, there is an apparent research gap that this study intends to fulfil.

The Influence of KM Processes on Innovation Adoption

KM processes are critical for improving the application of innovation in Nigerian manufacturing organisations (Akanbi et al., 2018). It is critical to establish effective information transfer systems, including knowledge collection, storage, and dissemination (Ajide & Raheem, 2020). Developing a culture encouraging information sharing and cooperation enhances creativity (Nwankwo & Gbadegesin, 2019). Investing in research and development efforts and technological capabilities is critical for practical KM processes. According to a study by Singh et al. (2021), the value of knowledge and knowledge-creation practices within top management can impact open innovation, ultimately affecting organisational performance. The KM process can contribute to green innovation, including its acquisition, dissemination, and application. This, in turn, can positively impact a company's sustainable performance (Shahzad et al., 2020).

Effective KM processes have a favourable impact on implementing innovation in the Nigerian manufacturing sector. Better knowledge transfer and documentation result in better innovation outcomes (Ajide & Raheem, 2020). Robust KM strategies encourage a culture of continual learning and innovation (Akanbi et al., 2018). Investing in research & development and implementing cutting-edge technologies make it easier to execute innovative techniques (Osabutey et al., 2018). KM processes significantly impact organisational performance (Iqbal et al., 2019; Gopinath et al., 2021). Opportunity recognition has been found to enhance the relationship between KM practices and entrepreneurial and organisational performance (Li et al., 2020). According to Miković et al. (2020), knowledge management has the potential to impact both incremental and radical innovations in organisations.

According to Iqbal (2021), the knowledge-sharing process plays a crucial role in facilitating the impact of various knowledge management enablers on the speed and quality of innovation. Organisational performance is influenced by the KM practices implemented in the organisation (Shah and Kant, 2021). Employees tend to be more open with those they trust when sharing personal knowledge. Skilful communication systems can facilitate knowledge-sharing. Additionally, reward systems are crucial in determining employees' motivation to share knowledge. Empowering and participatory leadership are the two primary drivers of promoting knowledge-sharing (Cormican et al., 2021). The KM Process is significantly impacted by internal collaboration and IT support (Narayanan et al., 2020). The concept of KM significantly influences an organisation's performance, ultimately affecting its profitability and productivity (Srinivasan, 2020). Organisations should make policies that encourage knowledge sharing in pursuing competitive advantage. Abu-Rumman (2021) concludes that a universal knowledge-sharing and management strategy is impractical. However, the study also argues that organisations must prioritise knowledge sharing to ensure long-term sustainability and relevance.

Sharing knowledge is an invaluable but expensive resource that can significantly enhance an organisation's competitiveness in the market. It plays a crucial role in job performance by promoting the efficient distribution of knowledge and increasing productivity (Huie et al., 2020). According to Janus (2016), a knowledge-sharing organisation regards knowledge as an asset and values its operational experiences as opportunities for learning internally through its employees and externally with its partners and stakeholders. Knowledge sharing is widely recognised as an essential element of knowledge management and a crucial determinant of its success (Veer Ramjeawon & Rowley, 2017). Nazim and Mukherjee (2016) assert that knowledge sharing is the most critical factor in the overall success of knowledge management. While previous studies have produced inconsistent results, Umer et al. (2023) indicate that knowledge utilisation is the most crucial process for enhancing productivity in knowledge workers. However, knowledge creation and sharing are complementary in improving knowledge utilisation. The authors concluded that prioritising knowledge utilisation over creation and sharing could improve productivity (Umer et al., 2023).

The Relationship between KM Process and Innovation Implementation Capacity

Knowledge and organisational innovation must be effectively managed to maintain competitive advantages. Gorelick and Tantawy-Monsou (2005) defined KM as incorporating people, processes, and technology to accomplish sustainable performance enhancement through learning. This system integrates people, processes, and technology to improve performance. The key KM processes include knowledge generation, codification, application, sharing, mapping, storing, and transfer (Davenport and Klahr, 1998).

According to Davenport and Klahr (1998), the objective of KM is to establish an effective organisational innovation climate for knowledge creation, transformation, and utilisation within an organisation. Organisational management uses vision and organisational culture to provide direction for KM, assisting in knowledge integration and application (Johannessen et al., 1999). Therefore, Nigerian manufacturers should understand the importance of KM processes for creating an organisational innovation climate and applying knowledge to create value for their companies and customers. According to Migdadi (2022), KM processes significantly impact intellectual capital, ultimately affecting an organisation's overall performance. An effective KM strategy and its enablers and processes can significantly improve organisational performance (Payal et al., 2019). When KM enablers are properly nurtured within an organisation, they can positively impact KM processes. The latter authors sustain that KM processes partially mediate the relationship between KM strategy and organisational performance.

In order to enhance organisational performance, it is essential to focus on KM processes that foster organisational commitment. The abilities of knowledge management have a positive impact on both the agility and performance of organisations (Rafi et al., 2022). Not only do they directly affect performance, but they also indirectly contribute to it by enhancing organisational agility. Studies in both corporate and education sectors, as confirmed by statistical results from studies like Butt et al. (2018) and Gopinath et al. (2021), show that KM processes have a notable and positive impact on organisational commitment. This, in turn, leads

to better performance in higher education institutions. The studies also highlight the importance of knowledge acquisition, creation, storage, sharing, and utilisation, all of which contribute to expediting organisational commitment. Unlike earlier studies that linked knowledge sharing, acquisition, and utilisation to organisational performance and validated the knowledge-based view theory (Iqbal et al., 2019), this study empirically demonstrates that knowledge creation and storage can improve organisational performance through organisational commitment in higher education institutions.

In Nigerian manufacturing, effective KM is vital in retaining employees for optimal performance. Properly managing knowledge acquisition, sharing, and development is recommended (Ike, 2019). Business organisations and users' networks can enhance performance by improving knowledge processes. It is crucial to note that technology, culture, structure, and people should work collaboratively to attain a competitive advantage for the organisation (Kumburu, 2023). Implementing KM practices significantly and positively impacts employee empowerment and performance (Harb et al., 2023). Small and medium-sized enterprises (SMEs) can improve their innovation orientation and performance by actively seeking external information through knowledge acquisition, sharing, interpreting, and creating internal knowledge through knowledge-sharing practices (Zhou et al., 2021).

Therefore, the subsequent hypotheses are put forward in this study:

H1: Knowledge Creation is significantly related to Innovation Implementation Capacity in Manufacturing.

H2: Knowledge Application is significantly related to Innovation Implementation Capacity in Manufacturing.

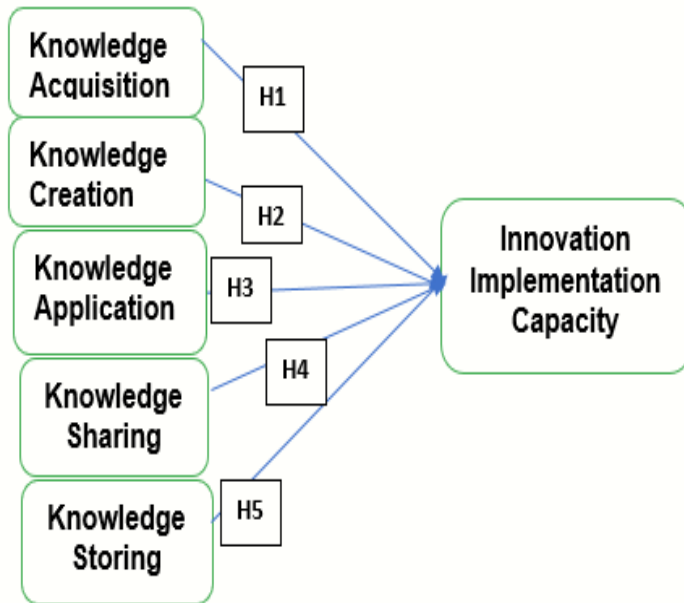
H3: Knowledge Utilisation is significantly related to Innovation Implementation Capacity in Manufacturing.

H4: Knowledge Sharing is significantly related to Innovation Implementation Capacity in Manufacturing.

H5: Knowledge Storing is significantly related to Innovation Implementation Capacity in Manufacturing.

Conceptual Framework

The conceptual structure (Figure 1) discusses the linkages between KM process variables (knowledge acquisition, knowledge creation, knowledge application, knowledge sharing, and knowledge storing) and Innovation Implementation Capacity in Nigerian manufacturing.



RESEARCH METHOD

This study investigated the impact of KM practices on implementing innovation in the Nigerian manufacturing sector. This study uses a quantitative approach to explore the connection between variables and the role of a moderating term. A survey research design with a structured questionnaire was used to collect data for analysis. A questionnaire with closed-ended questions was issued to 424 Nigerian manufacturers registered with the Manufacturing Association of Nigeria to obtain the primary data (MAN) to ensure statistical validity and dependability.

This study considers convenience sampling and stratified random sample (Cooper and Schindler, 2014). To ensure that each participant has an equal chance of being selected for the sample, the study's decision to use probabilistic (stratified random) sampling for its deductive hypotheses. Due to the convenience sampling method's unclear generalizability, stratified random sampling was used in this study to provide a representative sample of Nigerian manufacturing enterprises (Jager et al., 2017).

A specific industry sector is assigned to each stratum, including textiles and garment apparel, chemical raw materials, computer/communication/other electronics equipment, and food/beverages. The motive is to have a sample size that ensures a high degree of representativeness of all the strata or layers in the population (Palinkas et al., 2015).

In examining the links between KM processes (knowledge acquisition, creation, application, sharing, storing) and innovation implementation capacity, the obtained data were analysed using statistical methods, namely descriptive, correlation and multiple regression analysis. The

questionnaire included a 5-point Likert scale, allowing respondents to score their perspectives on various knowledge management procedures and innovation implementation-related aspects. This rating scale format facilitates the collection of numerical data that can be analysed statistically to draw meaningful conclusions.

The study thoroughly investigates various independent variables and their impact on the dependent variable using multiple regression analyses. This statistical method allowed for identifying the individual contributions of several KM methods to innovation implementation while controlling for other variables. The selected methodology provides a structured and systematic approach to data collection and analysis of the linkages between knowledge management processes and innovation implementation in the Nigerian manufacturing sector. It sought to generate significant insights into the research issue and contribute to the field's existing body of knowledge.

Reliability Measurement of the Knowledge Management Constructs

The study utilised Cronbach Alpha (Cronbach's α) to test the reliability and internal consistency of the variables using SPSS version 26. The overall Cronbach Alpha of this study is equivalent to 0.810 based on the findings, and the values for "knowledge acquisition," "knowledge creation," "knowledge application," "knowledge sharing," and "knowledge storing" are, respectively, 0.799, 0.730, 0.746, 0.790, and 0.790. Thus, the constructs have an overall Cronbach's Alpha greater than 0.70, indicating higher reliability (Hair, 2015).

MLR Estimation model

This study employed multiple regression to examine how the independent variables relate to various dependent variables (Aiken et al., 1991). Precisely, to determine the strength of relationships between knowledge management processes and innovation implementation in Nigerian manufacturing based on the following formula for multiple linear regression according to Gareth et al. (2013) and Gujarathi (2022):

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n + \varepsilon_i$$

Where:

- y = the dependent variable predicted value
- B_0 = the y-intercept (amount of y when all other parameters are set to 0)
- $B_1 X_1$ = the first independent variable's regression coefficient (B_1) of (X_1)
- ... = do the identical for however many independent variables
- $B_n X_n$ = the last independent variable regression coefficient
- e = model error (the amount of variation in the estimate of y)

Analyses

Regression Analysis was applied to understand the relationship between the KM processes and innovation implementation. The study coded the collected data into SPSS software version 26 for analysis and executed a multiple linear regression to answer the research questions, achieving the research aim and objectives.

Two inferential statistical analyses, correlation and regression, were performed to conclude whether to reject or accept the research hypotheses. The null hypothesis was rejected if the p-value was equal to or less than the significance value of 0.05 or failed to reject the null hypothesis if the p-value was more than 0.05. Correlation analysis was done to statistically evaluate the strength of a relationship between the dependent and independent variables and describe the relationship's direction. At the same time, regression analysis was conducted to predict the dependent variable through independent variables where the relationship is statistically significant to understand the strength of relationships between variables. It helped calculate the value of a dependent variable from one or more independent variables and how much the dependent variable will change by changing one unit of the independent variable.

Correlations						
	KAC	KCR	KAP	KSH	KST	IIC
KAC	--					
KCR	.511**	--				
KAP	.404**	.729**	--			
KSH	.305**	.453**	.500**	--		
KST	.402**	.444**	.405**	.438**	--	
IIC	.443**	.402**	.233**	.347**	.605**	--

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Multiple Regression Analysis was used to test the hypotheses and the theoretical structure. The regression achieves significance (F-value 27.104, $p < 0.001$) as shown in summary Table 1. The KM process exhibits remarkable effects on the innovation implementation capacity, where Knowledge Acquisition (KAC) Beta= .161, $p < 0.001$, Knowledge Creation (KCR) Beta=0.173, $p < 0.001$, Knowledge Application (KAP) Beta=-.214, $p > .001$, Knowledge Sharing (KSH) Beta=.091, $p < 0.023$ and knowledge Storing (KST) Beta=.459, $p < 0.001$. The KM process variables considered significantly affect innovation implementation capacity (IIC). These outcomes indicate that KM processes significantly impact manufacturing innovation implementation capacity. The $R^2 = .449$ shows that the KM process variables have a combined predictive power of about 45% variance in innovation implementation in Nigerian manufacturing. All the *p-values* fulfil the T-test's significance level criterion of $p < .05$. Hence, all the research hypotheses H1 to H5 were supported.

Table 1: Regression analysis of KM processes predicting innovation implementation capacity.

	Innovation implementation Capacity.		
	<i>Coefficients</i>	<i>Standardised coefficients</i>	<i>t</i>
Constant	1.321(.169)**		
Knowledge Creation (KCR)	.161(.034)**	.207	4.777
Knowledge Acquisition (KAC)	.173(.044)**	.228	3.975
Knowledge Application (KAP)	-.214(.045)**	-.262	-4.739
Knowledge Sharing (KSH)	.091(.040)*	.101	2.280
Knowledge Storing (KST)	.459(.041)**	.483	11.110
R ²	.449		
Adjusted R ²	.443		
F	68.169		
P-value	.001		
Sample size	424		

Remark * refers to $p < 0.05$ & ** for $p < 0.01$

DISCUSSION

The results demonstrated that KM process variables (knowledge acquisition, knowledge creation, knowledge application, knowledge sharing, and knowledge storing) positively and significantly impact innovation implementation capacity. These results are supported by Azeem et al. (2021), stating that organisational innovation positively affects competitive advantage. The performance of a business is greatly influenced by its innovation capacity, which can result in increased sales, cost savings, improved production capacity, and cost efficiency (Llopis et al., 2021). The final product's quality and operational efficiency are directly linked to the organisation's innovation capability (Smith et al., 2011). The ability of a business to utilise new technologies and advancements to achieve its objectives is the definition of innovation capacity. Innovation capability is determined by how well an organisation can use its resources and opportunities to learn and capitalise on commercial possibilities to meet the needs of its consumers. Businesses with more vital innovation capabilities perform better in innovation processes and performance than those with weaker capabilities (Smith et al., 2011). Knowledge significantly impacts a company's ability to innovate, enhancing its ability to absorb information. Additionally, the ability to process information positively affects innovation performance and mediates the relationship between knowledge search and innovation performance (Wang and Wang, 2022).

KM processes improve manufacturing performance (Duru et al., 2023). Implementing efficient knowledge management practices can considerably and favourably affect dynamic capabilities

(Li et al.' 2020). Also, sharing explicit and tacit knowledge among supply chain enterprises is crucial to positively impacting their innovation performance. Davenport & Klahr (1998) emphasise the importance of knowledge application and utilisation in improving efficiency and reducing production costs, directly impacting innovation implementation capacity. Spender & Scherer (2019) highlights the importance of knowledge sharing, creation, and application in driving innovation implementation capacity.

In exploring the impact of KM processes on innovation in knowledge-based firms, Naderi & Ghasemi (2019) emphasises the mediating role of organisational learning capability and how it enhances innovation implementation capacity. Knowledge acquisition, sharing, and application in fostering innovation implementation capacity, Paiva & Ezequiel (2021) demonstrate the positive impact of KM processes on innovation implementation capacity in an empirical study. Akhtar & Shah (2020) sustain that organisational learning capability is mediating in enhancing innovation implementation capacity. KM processes enhance organisational performance and innovation (Inkinen, 2016). Li et al. (2020) research highlights the significant impact of KM practices on organisational performance and entrepreneurship. The relationship between these practices and performance is further strengthened by the ability to recognise opportunities.

Additionally, dynamic capabilities partially mediate this relationship between KM practices and entrepreneurial and organisational performance. It provides empirical evidence of the positive relationship between KM practices and innovation performance. KM processes contribute to the development of innovation implementation capacity. Therefore, incorporating individuals, procedures, and technology in KM can enhance the overall performance of Nigerian manufacturing, including the ability to implement innovations. Active participation in knowledge management enhances productivity among knowledge workers in organisations that rely on knowledge-based operations (Butt et al., 2019).

Therefore, the enhancement of innovation implementation in Nigerian manufacturing anchors on active participation in knowledge management processes to enhance productivity among knowledge workers in organisations that rely on knowledge-based operations (Butt et al., 2019). According to a study (Scholar, 2022), the growth of entrepreneurship in Nigeria is closely tied to funding from the CBN for micro, small, and medium-sized enterprises (MSMEs). However, for Nigerian manufacturing to truly benefit, they require increased awareness, expedited processing times, and adequate funding.

CONCLUSION AND RECOMMENDATIONS

Finally, KM processes are critical for fostering innovation implementation in the Nigerian manufacturing sector. Overcoming the obstacles associated with information transfer, R&D, talent development, and infrastructure shortages is critical for encouraging innovation. Using effective KM strategies, manufacturing organisations may harness their innovative potential, improve competitiveness, and contribute to long-term economic growth.

This study concludes that KM processes influence manufacturing organisations' ability to implement innovation. The regression analysis results indicate a significant positive impact of KM processes on manufacturing innovation implementation capacity. This outcome is supported by a study by Singh et al. (2021). The value of knowledge possessed by top management and their adoption of knowledge-creation practices significantly impact open innovation, ultimately influencing the organisation's overall performance. Sharing knowledge is essential for employees to exchange tacit knowledge, and altruism and subjective norms play a crucial role in this process. These findings can guide leadership styles, recruitment, and initiatives to encourage knowledge-sharing behaviours. Our recommendations are based on empirical evidence and contribute to a deeper understanding of these factors.

Regarding Knowledge Acquisition, learning organisations should be developed to promote management by, for example, encouraging staff to acquire new knowledge continually and discussing continuous learning, quality, performance, and improvement. Establishing knowledge learning, integration, and systematic methods would aid in developing an innovative implementation culture inside an organisation.

Concerning Knowledge Creation, a company could build and improve the organisational knowledge creation and innovation implementation atmosphere by promoting organisational knowledge management, encouraging supervisors, facilitating teamwork, and providing appropriate resources.

Nigerian manufacturers should invest in information equipment and related capacities rather than rely on traditional knowledge storage methods. Knowledge might be inherited through information technology for more effective development with step-by-step promotion. In this case, the recording and organising the employee database, expressing work experience through implicit or explicit methods and learning work skills through observation, imitation, and practice. Recording and organising the employee database should be treated as a long-term investment.

Limitations and Further Studies

Despite providing some empirical support for the impact of KM processes on innovation implementation in manufacturing in Nigeria, this study has some limitations. One of the significant limitations of this research is that the scope of the present study is limited to Nigerian manufacturers. The findings cannot be generalised to other samples from emerging nations' manufacturing sectors. To increase generalizability, a future study in this area should be replicated using a new sample from a different manufacturing industry sector of other nations.

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