MODERATING EFFECT OF LEARNING ORIENTATION ON THE RELATIONSHIP BETWEEN KNOWLEDGE MANAGEMENT AND ORGANISATIONAL RESILIENCE AMONG PLASTIC MANUFACTURING FIRMS IN SOUTHWEST, NIGERIA

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ABSTRACT

The internal and external environments of organisations frequently create disturbances, conflicts and crises that deter smooth and effective operations requiring them to remain adaptive and resilient to recover from adverse effects. While numerous studies have established a relationship between knowledge management and organisational resilience including various mediating effects, a significant gap exists in the literature regarding the moderating influence of learning orientation. Consequently, this study examines the moderating effect of learning orientation on the relationship between knowledge management and organisational resilience among plastic manufacturing firms in Southwest, Nigeria. Using a survey design, data were collected through a structured questionnaire from 195 firms determined using the Yamane formula. Structural equation modeling was employed for inferential data analysis. The model exhibited a strong goodness-of-fit revealing an R^2 value of 0.69. The findings established that knowledge management practices exert a significant positive effects on organisational resilience. Regarding the moderating effect, learning orientation significantly and positively moderates the relationships between knowledge acquisition, knowledge creation and organisational resilience. In contrast, it demonstrated a positive but insignificant moderating effect on the relationships involving knowledge sharing and storage. The study recommended that management of the firms should prioritize active knowledge processes by investing in systems that encourage continuous acquisition, creation and sharing while also cultivating a robust learning orientation characterized by organisational open-mindedness.

Key words: adaptation capacity, knowledge management practices, organisational resilience, learning orientation and knowledge processes.

Introduction

Background to the study

Organisations do not exist in a vacuum but rather as subsystems within a larger societal framework comprising various forces and factors that deter their smooth and effective operations. Organisations operate within a dynamic and turbulent environment that poses both challenges and opportunities requiring organisational adaptation in order to cope with the dynamic stakeholders interest (Mafabi *et al.*, 2013). Global challenges like financial crises, pandemics and climate change continuously expose organisations to conditions threatening their survival and as such it is vital to comprehend how organisations can positively adjust or operate during adversity and bounce resourcefully (Hollands *et al.*, 2024). Furthermore, organisations are constantly confronted

with complexities arising from emerging changes in the internal and external environments in which they operate (Godwin and Amah, 2013). In addition to uncertainties such as shifting consumer preferences, technological advancements and natural disasters, organisations in high-intensity markets frequently encounter adverse circumstances stemming from macroeconomic shifts, financial crises and competition from non-traditional rivals (Morales *et al.*, 2019). Under such turbulent conditions, organisations must exhibit resilience-based characteristics while operating within the boundaries of their established missions and objectives (Khan *et al.*, 2019).

A significant contemporary topic in management literature is Organisational Resilience (OR) which describes how an organisation responds to unfavorable occurrences and crises (Kumbali & Irmis, 2023). In an extremely unstable environment, organisations must build resilience capabilities to effectively manage unforeseen circumstances, recover from crises and ensure future success. Beyond the traditional production factors of land, labor and capital, knowledge has emerged as one of the most fundamental assets for organisations in the modern market.

Consequently, it is critical for organisations to maximise knowledge as a key production element to maintain a competitive edge (Kumbali & Irmis, 2023). Sustaining this advantage depends not only on possessing knowledge but also on the capacity to manage it effectively (Mohammed *et al.*, 2023). Knowledge management (KM) encompasses all efforts required to apply knowledge towards solving environmental issues and achieving organisational objectives (Ismael *et al.*, 2021).

In an era where change is the only constant, the primary source of organisational durability is the ability to learn more effectively and rapidly than competitors (Fani *et al.*, 2017). Learning orientation (LO) represents a core dimension of organisational learning which refers to an organisation's attitude towards learning and the values routinely associated with it (Ratten, 2007). LO fosters the development of an effective learning system and dictates the degree to which a firm values new ideas and critically evaluates routines for improvement (Sinkula *et al.*, 1997). By focusing management attention on learning activities, LO fosters a learning-oriented culture and atmosphere (Ginzy *et al.*, 2014).

Numerous studies have examined the relationship between KM and OR exploring various mediating effects such as innovation and organisational structure (Mafabi *et al.*, 2012; Kumbali and Irmis, 2023). However, a significant gap regarding moderating effects specifically that of LO remains underexplored. Identifying the conditions under which KM practices are more or less effective is essential for theory building yet this remains underexplored. Understanding the conditional relationship between KM and OR as a function of LO can enhance both practical decision-making and theory advancement. This study seeks to address this gap by setting the stage with this introduction, followed by review of literature, methodology, results and discussion and finally conclusion and recommendations.

Objectives of the Study

I. To examine the direct effects of KM practices on OR among plastic manufacturing firms in Southwest, Nigeria.

II. To investigate the moderating effect of learning orientation on the relationship between KM practices and OR among plastic manufacturing firms in Southwest, Nigeria.

Literature Review

This section presents a conceptual review, an empirical review and the theoretical framework upon which this study was anchored. The conceptual review examines the core variables of the study; the empirical review evaluates relevant past research to situate the identified gap and finally, the underlying theories guiding the research are discussed from which hypotheses were proposed.

Conceptual Review

Knowledge Management

Armidor and Sulayon (2024) argued that KM encompasses all efforts directed toward leveraging knowledge to achieve organisational objectives and address institutional challenges. Similarly, Rambe and Mbeo (2017) defined KM as a conscious process of creating new knowledge and sharing it widely throughout the organisation which subsequently manifests in new products, services, technologies and systems that influence organisational learning. KM is further characterised as the process of generating synergy between the data-processing capabilities of information technology and the creative, innovative and potential of human capital. As noted by Malhotra (1998), KM represents the organisational ability to generate, share, apply and oversee internal knowledge and information thereby facilitating the accomplishment of strategic organisational goals.

Organisational Resilience

OR is a specialised subfield of management focusing on how businesses navigate and mitigate unforeseen environmental hazards (Tennakoon and Jenadari, 2021). Darkow (2019) describe OR as the ability to foresee potential risks, respond effectively to unanticipated events and extract critical lessons from these experiences to develop dynamic capabilities that facilitate organisational change. Building on this perspective, Duchek (2020) emphasises that OR is not merely a reactive state but a proactive capacity to anticipate threats and adapt to unforeseen circumstances thereby institutionalising a dynamic capability designed for long-term transformation. Furthermore, Rehman *et al.* (2021) define OR as an organisation's inherent ability to adapt to specific crises and implement strategic adjustments that mitigate the impact of shocks which might otherwise jeopardize the viability of the business.

The Intersection of Knowledge Management and Organisational Resilience

The only irreplaceable capital an organisation possesses is the collective knowledge and expertise of its workforce. By identifying and codifying critical knowledge, procedures and processes from individual employees, knowledge retention directly contributes to OR (Douglas and Haley, 2024). This systematic retention enables organisations to maintain and restore operations even when key personnel depart (Godwin and Amah, 2013). Information is essential for enhancing an organisation's survival prospects by providing the necessary knowledge resources to strengthen resilience-based skills. Continuous knowledge updates serve as a primary source of institutional power necessitating ongoing learning and fostering employee enrichment. As noted by Kumbali and Irmis (2023), KM is a vital tool for solving critical challenges including organisational adaptation, survivability and readiness for unanticipated changes. Furthermore, KM bolsters resilience by identifying essential intellectual assets, fostering collaborative networks and enhancing both individual and collective competencies (Abdi *et al.*, 2018). By coordinating procedures that gather, archive and disseminate knowledge to train staff and stimulate creativity KM prepares organisations to remain resilient amidst unforeseen disturbances and environmenta complexities.

Conceptual Framework

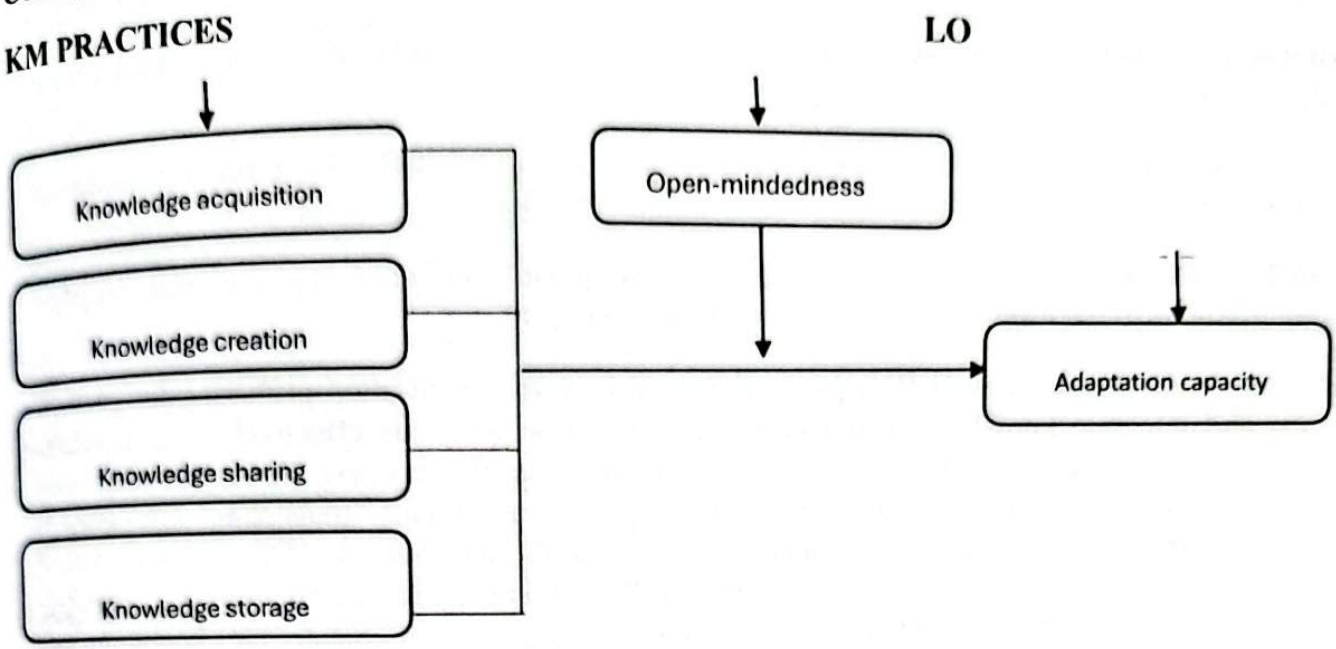

Figure 1: Conceptual FrameworkSource: Author's conceptualisation (2025).

The conceptual framework as shown in Figure 1 portrays OR specifically measured by adaptation capacity being dependent upon KM practices. Furthermore, LO is positioned as a moderator that is expected to strengthen the relationship between KM practices and adaptation capacity.

Theoretical Framework and Hypotheses Development

The study was anchored on the Knowledge-Based View (KBV) and Organisational Learning Theory (OLT). The KBV of the firm recognises knowledge as the most strategically significant resource of the organisation, providing a framework and associated approaches for the application of knowledge within firms (Schoenherr, 2022). Grant (1996) articulated the theoretical foundations for the KBV as both a theory of organisation and a theory of strategy which has since become arguably the most widely utilised perspective on knowledge within the field of strategic management. Zhao (2019) observed that the success of advanced economies has been achieved primarily through knowledge-driven mechanisms. As noted by Armidor and Sulayon (2024), the KBV explains how an organisation's unique knowledge assets strengthen its capacity to withstand and bounce back from adversity, ultimately leading to sustainable organisational performance. The KBV emphasises that knowledge and human capital encompassing expertise, experience and innovative ideas are crucial resources that provide firms with a superior ability to compete effectively by applying rare knowledge rather than relying solely on financial capital (Oo and Rakthin, 2025). To fully realise the benefits of this theory, a firm must adopt a comprehensive knowledge-based strategic orientation. This involves actively identifying and leveraging the organisation's knowledge assets while investing in processes and systems that foster the creation, dissemination and application of knowledge throughout the entity (Arunga and Kilika, 2023). As organisations become increasingly knowledge-based, their success relies on how effectively knowledge workers develop and integrate information to ensure organisational resilience (Mafabi *et al.*, 2013). Drawing from this theoretical framework, the following hypotheses are proposed:

Hypothesis 1 (H1): knowledge acquisition has a significant positive effect on organisational resilience among plastic manufacturing firms in Southwest, Nigeria.

Hypothesis 2 (H2): knowledge creation has a significant positive effect on organisational resilience among plastic manufacturing firms in Southwest, Nigeria.

Hypothesis 3 (H3): knowledge sharing has a significant positive effect on organisational resilience among plastic manufacturing firms in Southwest, Nigeria.

Hypothesis 4 (H4): knowledge storage has a significant positive effect on organisational resilience among plastic manufacturing firms in Southwest, Nigeria.

The Knowledge-Based View (KBV) posits that a firm is an organisation primarily designed to process and integrate knowledge (Guo *et al.*, 2025). To achieve this effectively, organisations require a robust learning orientation system. Learning is the process through which new information is integrated into the behaviour of agents potentially translating into altered behavioural patterns and improved outcomes (Eisenhardt and Santos, 2002). Furthermore, organisational learning serves as a fundamental pillar of knowledge-based thinking. Through continuous learning, firms enhance their knowledge inputs and foster the cognition of organisational members particularly in response to crises (Jiao and Bu, 2024). OLT complements the KBV by emphasising that the effectiveness of knowledge utilisation depends on a firm's orientation towards learning and its willingness to acquire, interpret and apply new knowledge systematically (Sinkula, 1994; Slater and Narver, 1995). According to Arunga and Kilika (2023), learning orientation is one of the four strategic orientations that dominate scholarly literature. They suggest that organisations aligned with this strategy are more open-minded, flexible and adaptable enabling them to respond to environmental changes more effectively. Consequently, organisations must cultivate a shared vision and engage in continuous learning to derive insights from daily activities and improve performance (Arunga and Kilika, 2023). Learning Orientation (LO) is theorised to act as a moderator that strengthens the relationship between Knowledge Management (KM) practices and Organisational Resilience (OR). When firms exhibit high levels of LO, knowledge is not merely collected and stored but is interpreted, internalised and applied to strategic challenges. This process amplifies the positive association between KM practices and OR outcomes. Drawing from the aforementioned theoretical arguments, the following hypotheses are proposed:

Hypothesis 5 (H5): learning orientation significantly moderates the relationship between knowledge acquisition and organisational resilience among plastic manufacturing firms in Southwest, Nigeria.

Hypothesis 6 (H6): learning orientation significantly moderates the relationship between knowledge creation and organisational resilience among plastic manufacturing firms in Southwest, Nigeria.

Hypothesis 7 (H7): learning orientation significantly moderates the relationship between knowledge sharing and organisational resilience among plastic manufacturing firms in Southwest, Nigeria.

Hypothesis 8 (H8): learning orientation significantly moderates the relationship between knowledge storage and organisational resilience among plastic manufacturing firms in Southwest, Nigeria.

Hypothesis 9 (H9): learning orientation has a significant positive effect on organisational resilience among plastic manufacturing firms in Southwest, Nigeria.

Empirical Review

Saeful and Winadi (2024) investigated the influence of KM on OR and innovation. Using online questionnaires, they collected data using questionnaire from 100 randomly selected company managers in Jakarta. Their analysis, conducted via SPSS by employing multiple regression analysis revealed that knowledge sharing, utilization, acquisition and storage exert a significant positive influence on OR and innovation. Their findings aligns with that of Mafabi *et al.* (2012). However, the latter noted that KM's effect on OR is often realised through the pathway of innovation.

Armidor and Sulayon (2024) examined how KM practices and OR enhance the performance of SMEs in Tagum City. Their study was anchored KBV and supported by Dynamic Capabilities Theory (DCT) and OLT. Using a quantitative survey by employing a research questionnaire, they collected data from professionals across diverse industries. They found that organisations with robust KM systems exhibit higher resilience characterised by the ability to anticipate, prepare for, respond to and recover from adversity. This resilience in turn, drives improved efficiency and competitive advantage. Their results correspond with Sharma and Tamama (2019) whom also established a significant positive relationships between KM dimensions and OR.

In the healthcare sector, Sahadevan and Mary (2024) utilised a descriptive research design to survey 250 respondents from 10 hospitals in Thiruvananthapuram. Their Pearson's correlation analysis showed a strong relationship between KM and employee-level organisational resilience as well as a significant correlation between organisational learning and knowledge acquisition. Their findings are consistent with that of Ismael *et al.* (2021) whom also found a positive correlation between KM, total OR levels and organisational agility.

From a structural perspective, Kumbali and Irmis (2023) surveyed 246 managers from Turkey's top industrial companies. Using Structural Equation Modeling (SEM), they discovered that both KM and organic organisational structures positively affect OR. Furthermore, they found that KM partially mediates the association between organic structures and resilience. Some studies explored these similar complex paths like Fani *et al.* (2017) whom found no significant mediating effect of organisational learning between KM and OR suggesting that the relationships between these variables may vary based on context or organisational type.

METHODOLOGY

This section discusses the methods used by the study to address the gap identified. The research design, participants, procedures of data collection and ethical considerations, variables measurements and the technique of data analysis were discussed.

Research Design

The study adopted a cross-sectional survey design within a quantitative research approach. This methodology was selected to objectively elicit responses through a structured questionnaire allowing for the systematic measurement and analysis of data using inferential statistical methods. A quantitative approach was deemed most appropriate as it reduces ambiguity in the interpretation of results.

Population, Sample Size and Sampling Technique

The target population for this study comprised all plastic manufacturing firms operating in the six states of Southwest Nigeria. According to the 2023 Dun & Bradstreet Report, there are 382 registered plastic manufacturing firms in the region. To determine an appropriate sample size, the Yamane formula was employed. Using a population of 382 and a margin of error 0.05, a sample of 195 was obtained. A stratified sampling technique was first utilised to proportionally distribute the sample across the six states as indicated by Table 1 ensuring geographical representation. Subsequently, a systematic sampling technique was applied within each strata to select the specific firms for participation. The unit of response for this study was the organisational level. To capture data at this level, the research instrument was administered to one senior manager within each participating organisation. The choice of the organisational level as the unit of response is justified by the study's focus on organisational resilience and knowledge management practices, which are collective firm-wide constructs rather than individual psychological states. Senior managers are deemed the most appropriate key informants because they possess a "helicopter view" of the organisation's strategic processes, resource allocation and adaptive capabilities. Their position allows them to provide reliable data on institutionalised routines and firm-level behaviors that a lower-level employee might not fully perceive.

Table 1: Population and Sample Distribution of the Study

S/NO	States	Population	Sample
1	Lagos	230	118
2	Ogun	87	45
3	Osun	20	11
4	Oyo	30	15
5	Ekiti	4	2
6	Ondo	11	4
TOTAL		**382**	**195**

Source: Author's field survey (2025).

Procedure and ethical considerations

Data collection was facilitated by five experienced research assistants who were trained to prioritise ethical standards throughout the fieldwork. The assistants visited the identified firms to obtain formal permission for the survey during which the study's objectives were thoroughly explained to the management teams. To ensure compliance with ethical research protocols, management and individual respondents were assured that participation was entirely voluntary with the explicit right to withdraw from the survey at any time without fear of repercussions. Moreover, a cover letter accompanied each research instrument clearly stating that the data collected would be used strictly for academic research purposes. Additionally, the research assistants guaranteed that the privacy of the firms and the anonymity of the individual managers would be strictly protected ensuring that no identifying information would be linked to the published results.

Variables Measurement

The research instrument utilised validated scales adapted from previous studies to ensure the reliability and validity of the constructs. All items were measured using a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree." Knowledge Management was conceptualised as a multi-dimensional construct consisting of four dimensions: Knowledge Acquisition (KA), Knowledge Creation (KC), Knowledge Sharing (KS) and Knowledge Storage (KST). These were measured using scales adapted from Mafabi *et al.* (2012) comprising 5, 4, 5, and 5 items, respectively. Organisational resilience focused specifically on adaptation capacity measured using the 10-item scale developed by Morales *et al.* (2019). Learning Orientation focused on organisational learning values and was conceptualised through the dimension of open-mindedness. This was measured using a 6-item scale adopted from Sinkula *et al.* (1997).

Method of Data Analysis

This study employed descriptive and inferential statistics using structural equation modeling SEM conducted via Analysis of Moment Structures (AMOS) software. SEM is a technique that is more robust and has greater flexibility allowing a model to incorporate multiple and different variables, error terms, correlations and inter-correlations simultaneously. Hypotheses were tested at 5% (0.05) level of significant. The structural model was analysed using path analysis to assess the direct effects among the variables. For moderation analysis, the independent variables and the moderator were mean-centered after which an interaction term was created by multiplying the centered variables to test the moderating effects.

Results and Discussion

This sections presents results of data collected from the participants after employing statistical analysis. The results are presented under model measurement and structural model after which hypotheses were tested and then findings were discussed in relation to theoretical and empirical evidences.

Model Measurement

Confirmatory Factor Analysis (CFA) was conducted as shown in Figure 2 to assess the extent to which the observed indicators adequately and sufficiently represent their respective latent constructs. This step was crucial to ensure that the indicators are uniquely distinct and statistically valid. The CFA results provided factor loadings for each indicator. In line with established psychometric standards, indicators with low factor loadings (below 0.5) were removed to optimise the measurement model and improve the overall model fit.

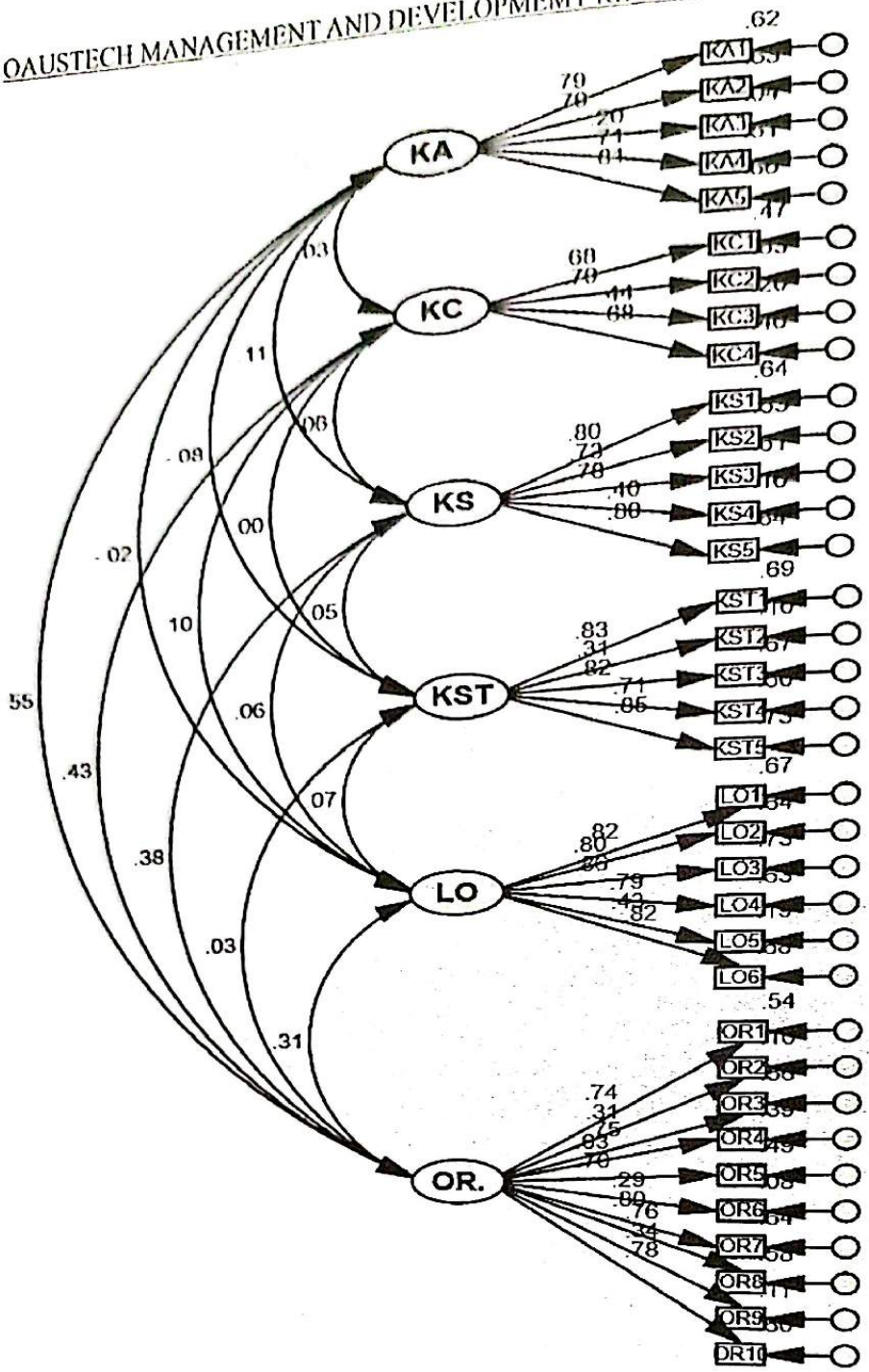

Figure 2: CFA of the study Source: Author's field survey (2025).

Reliability and Convergent Validity

Composite Reliability (CR) and Cronbach's Alpha (CA) were employed to access the reliability of the constructs. Both CR and CA revealed excellent reliability exceeding 0.7 as shown in Table 2 indicating a high internal consistency of the constructs. Validity was accessed using Average Variance extracted (AVE) and using Heterotrait-Monotrait Ratio of Correlations (HTMT). AVE also revealed excellent results exceeding 0.5 for all the constructs as indicated by Table 2 indicating that the various indicators that measured the construct converge sufficiently to represent them.

Table 2: Reliability and Convergent Validity of Constructs

CONSTRUCT	CA	CR	AVE
KA	0.796	0.86	0.60
KC	0.733	0.76	0.51
KS	0.813	0.86	0.60
KST	0.831	0.89	0.66
OR	0.852	0.91	0.67
LO	0.890	0.89	0.55

Source: Author's field survey (2025).

Table 3: Discriminant Validity of the Construct

	KA	KC	KS	KST	LO	OR
KA						
KC	0.05					
KS	0.18	0.10				
KST	0.13	0.00	0.07			
LO	0.04	0.017	0.09	0.11		
OR	0.59	0.81	0.09	0.62	0.51	

Source: Author's field survey (2025).

Table 3 above reveals a very low HTMT for all constructs indicating that the constructs do not significantly converge but rather diverge sufficiently.

Assessment of Common Method Bias

To assess the potential for common method bias, Harman's single-factor test was conducted. The results as shown in Table 4 below indicated that six factors were extracted with the fist factor accounting for 25.6% of the total variance. The findings suggest that common method bias is not a concern in the study and it is unlikely to materially influence the relationships among the various constructs

Table 4: Harman's Single-Factor Test

Factor	Eigenvalue	% of Variance Explained	Cumulative %
1	2.31	25.6	25.6
2	1.89	20.9	46.5
3	1.15	12.7	59.2
4	0.98	10.8	70.0
5	0.80	8.9	78.9
6	0.57	6.4	85.3

Source: Author's field survey (2025).

Model Fit and Statistics Fit Summary

In SEM, model fit denotes the extent to which the specified model (estimated covariance matrix) is a close representation of the data (observed variance matrix). Various fit categories represented by various index were used to test the model's goodness of fit. Table 4.3 below shows the various results of the test for Root Mean Square Error of Approximation (RMSEA), Chi-square P-value, Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Comparative Fit Index (CFI), Tuker-Lewix Index (TLI), and Normed Fit Index (NFI).

Table 5: Model Fit and Statistics Fit Summary

Category	Index	Results Obtained
Absolute fit	P-value of X^2	0.062
	RMSEA	0.019
	GFI	0.986
	AGFI	0.992
Incremental fit	CFI	0.998
	TLI	0.983
	NFI	0.873
Parsimonious fit	Chi-square	603.22
	Degrees of freedom	545
	X^2/df	1.107

Source: Author's field survey (2025).

From Table 5 above, the summary of the model fit indices provide strong empirical evidence that the measurement model is well specified and that the observed indicators adequately represent their respective latent constructs. Consequently, the model was deemed suitable for subsequent structural analysis and the validity of the constructs is supported as well.

Structural Model

Structural model unlike measurement model focus on examining relationships between constructs using path analysis. Path analysis was perform to examine the structural relationships between

constructs employed in the model. The predicting variables, moderating variable and its interactions with the predicting variables were all measured against OR as shown in Figure 3 below. SEM requires an adequate sample size to ensure reliable and stable parameter estimates, reduce standard errors and achieve a sufficient statistical power for hypotheses testing. Power analysis was conducted to determine the minimum sample size required for detecting significant relationships among construct. According to Cohen (1992), for a medium effect size (F^2=0.15), an alpha level of 0.05 and desired statistical power of 0.80, a minimum of 84 participants is required for a regression model with four predictors. The sample for this study exceeds this minimum requirement thus providing sufficient statistical power to detect meaningful effects.

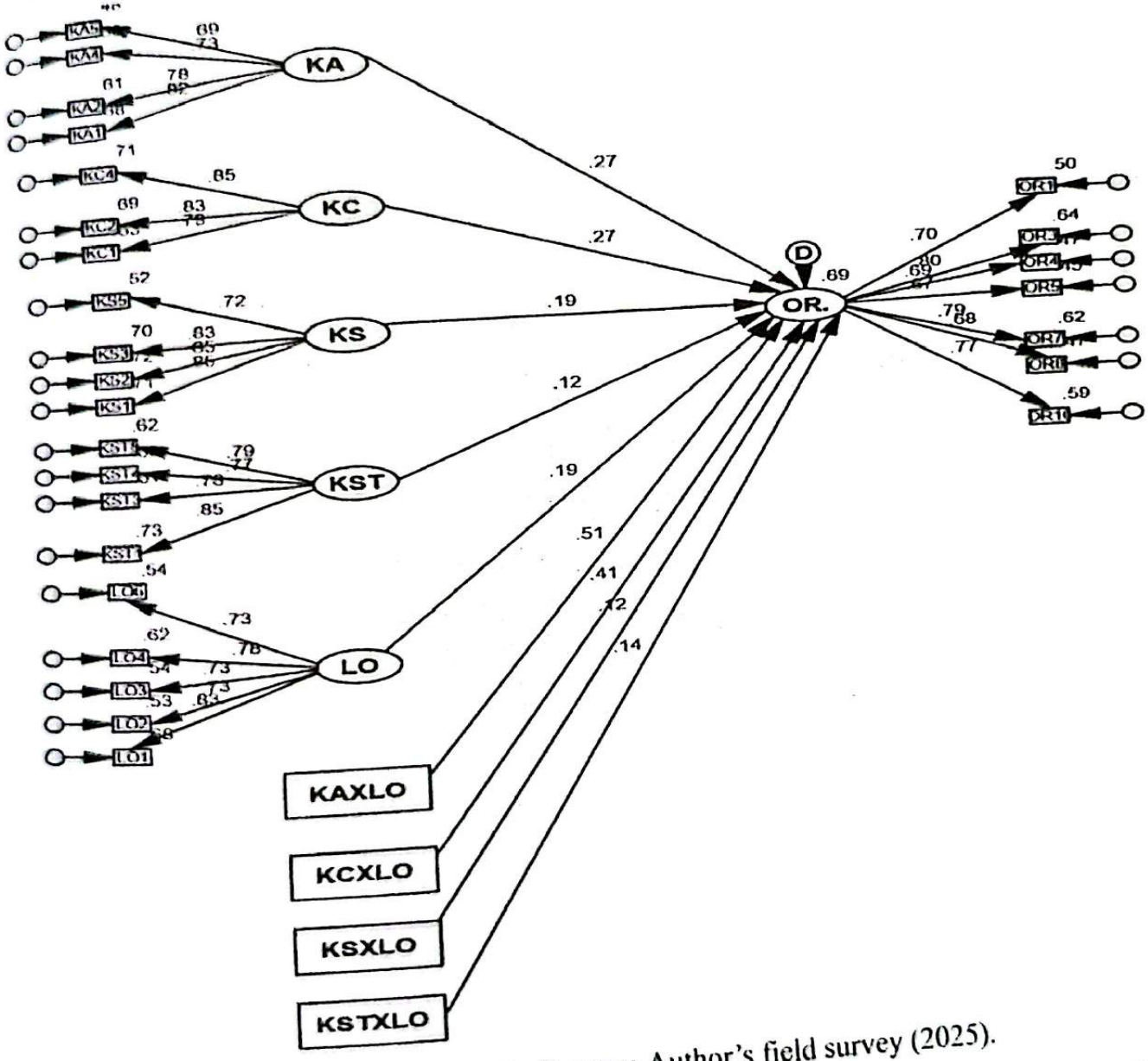

Figure 3: Structural Model of the Study Source: Author's field survey (2025).

Figure 3 portrays that with the inclusion of the moderating variable and its interactions with the independent variables, OR has R^2 of 0.69 indicating that the independent variables, moderating variable and its interactions with the predicting variables accounted for 69% of variations in organisational resilience as measure by adaptation capacity. The other 31% may be due to unexplained variables (error term) not included in the model. The value of the R^2 being high indicated that KM and LO practices play an important role in deriving OR.

Table 6: SEM Path Analysis Results

Hypotheses	Interaction Path	Path Coefficients	T-value	P-value at 5%	Decision
H1	KA → OR	0.27	5.569	0.000	Accepted
H2	KC → OR	0.27	5.689	0.000	Accepted
H3	KS → OR	0.19	4.182	0.000	Accepted
H4	KST → OR	0.12	2.730	0.07	Rejected
H5	KA × LO → OR	0.51	4.192	0.000	Accepted
H6	KC × LO → OR	0.41	10.122	0.000	Accepted
H7	KS × LO → OR	0.12	1.972	0.097	Rejected
H8	KST × LO → OR	0.14	2.578	0.072	Rejected
H9	LO→ OR	0.19	3.469	0.01	Accepted

Source: Author's field survey (2025).

Discussion of findings for Direct Relationship

The results from the Table 6 also shows that knowledge acquisition had a positive and significant effect on OR such that a unit increase in KA will yield 0.27 unit increase in OR. This finding implies that firms that obtain knowledge from external sources like competitors, customers and networks are more likely to develop adaptive capacity. The finding is in line with Sharma and Tamama (2019) whom also found a positive and significant relationship between KA and OR. Saeful and Winadi (2024) also discovered similar finding in which KA was found to have a positive and significant influence on OR and innovation. This finding is justified by KBB which opined that knowledge is the most critical resources and asset that can improve organisation's adaptability and resisting capacity.

Similarly, the result from Table 6 shows that knowledge creation had a positive and significant effect on OR implying that creating knowledge within the firms positively and significantly affect OR such that a unit increase in KC will yield 0.27 unit increase in OR. This suggested that organisations who actively create knowledge and new ideas, processes and solutions are in better positions to adapt to internal and external uncertainties and disturbances. This finding corresponds with Armidor & Sulayon (2024) whom also found that organisations with robust KM systems such as KC exhibit higher resilience characterised by their ability to anticipate, prepare for, respond to and recover from adverse situations. The finding of Alharthy *et al.* (2018) also corresponds with this finding where KC was revealed to positively influence the organisational resilience capabilities.

Knowledge sharing also had a positive and significant effect on OR as shown in Table 6 implying that a unit increase in KS will yield 0.19 increase in OR. This finding suggests internal dissemination of knowledge significantly improves organisational resilience. This is because when employees freely share insights, experiences and lessons learned, the firm avoids knowledge silos leading to faster coordinated responses during disruptions. This finding agreed with that of Godwin and Amah (2013) whom also found a positive and significant influence of KS on OR. Sharma and Tamama (2019) also revealed a positive and notable relationship between KS and OR dimensions.

In contrast, knowledge storage also had a positive but insignificant effect on OR as shown in Table 6. This implies that merely storing knowledge does not significantly enhance adaptive capacity.

This suggests that while the preservation of knowledge is beneficial, it may not directly influence an organisation's ability to adapt in turbulent environments unless such stored knowledge is actively retrieved and applied. This is because stored knowledge may become obsolete, underutilised or disconnected from real-time decision making and as such, without active updating and usage, knowledge repositories alone do not create resilience. This finding is in contrast with that of Saeful and Winadi (2024) who found a positive and significant influence of KST on OR. Sahadevan and Mary (2024) also found a contrary finding which reveals that KST is positively and significantly related to organisational resilience. This contradiction may be sector or industry differences or other factors like years of business existence which might be related with the variable as businesses that have few years of existence will prioritise KST much more than those that have stayed long in business.

Discussion of findings for Moderating Effect

Table 6 indicated that LO as a moderator also demonstrated a positive effect on OR which was statistically significant highlighting the importance of a culture that values continuous learning, experimentations and openness of mind to new knowledge and ideas in strengthening organisational resilience. This finding impliedly suggests that for each unit increase in LO, OR will respond with 0.19 increase as well. The finding agreed with the suggestion of Jiao and Bu (2024) that organisational learning can foster the cognition of managers thereby enhancing resilience of the organisation.

Table 6 also indicated that LO strengthens the positive effects of KA and KC on OR. These findings indicated that when organisations value learning, cultivate open-mindedness and encourage receptiveness to new ideas and diverse perspectives, their efforts in acquiring and creating knowledge translate more effectively into adaptive capacity. This is because without high LO in organisations, new ideas may be generated or acquired but ignored or resisted. Moreover, external knowledge acquisition foster more resilience when firms are willing to challenge existing assumptions, absorb more insights and adjust existing routines. By implication, learning orientation positively and statistically influence and strengthen the effects of KA and KC on OR such that for each unit increase in LO, the effects of KA and KC on OR will increase by 0.51 and

0.41 units respectively. These results are in line with Sahadevan and Mary (2024) whom also found a favourable correlation between KA and organisational learning. The findings also agreed with that of Mafabi *et al* (2012) whom also established that KM did not have direct effect on OR except through innovation. This is because innovation and leaning are much related and organisations

with learning orientation are likely to be more innovative as established by Oo and Rakthin (2025) that organisational unlearning affect resilience capability through innovation quality. The findings also affirms organisational learning theory which explained how organisations learn and evolve through knowledge acquisition and adaptation to strengthen their resilience in the face of uncertainty.

Table 6 indicated that the results of the interactions of LO as a moderator with KS and KST had coefficients of 0.12 and 0.14 which were statistically insignificant. This implies that their moderating effect are statistically insignificant and thus not reliable. This might be because knowledge sharing may already be inherently social and relational and its effect on resilience does not depend heavily on learning culture. Similarly, knowledge storage is also a static mechanism and as such learning culture may not be sufficient to transform archived knowledge into adaptive capacity. These findings implied that open-mindedness plays a reliable pronounced role in exploratory knowledge processes (acquisition and creation) than in routine or archival processes (sharing and storage). This pattern can be explained by the nature of these KM processes. KA and KC are inherently exploratory processes that involve seeking new information, questioning existing assumptions and generating novel solutions. Such activities require cognitive flexibility and willingness to reconsider established beliefs which are core characteristics of open-mindedness. In contrast, KS and KST represents relatively routine or exploitative processes that focus on the dissemination and preservation of existing knowledge. These activities are embedded in organisational routines, communication channels and information systems making them less dependent on employees' openness to new ideas. The findings are in line with previous empirical finding of Fani *et al* (2017) whom established that there is no mediation of organisational learning in the relationship between KM and OR.

Practical Implications of Findings

The findings provided important insights into how organisations can strategically leverage knowledge and learning behaviours to boost their resilience during unforeseen crises and obstacles. The significant direct influence of knowledge acquisition, creation and sharing established that dynamic knowledge practices are central to adaptive capacity performance. Moreover, the significant moderating role of LO suggests that resilience is not merely a product of knowledge activities and processes but also entails mindset activities with which those activities are approached. The insignificance of knowledge storage and its moderated paths points to a critical insight that the mere availability of information and knowledge are not sufficient for resilience unless and until such knowledge and information are being used, challenged and applied in unique ways. The findings also affirms that open-mindedness exerts a more pronounced moderating influence on exploratory knowledge processes that involve seeking new knowledge and ideas. Moreover, the effectiveness of exploitative knowledge processes that involve routine knowledge sharing and storage may not significantly vary across different levels of open-mindedness. Despite that learning orientation act a catalyst in turning raw knowledge into actionable resilience, it moderating effect appears to have more effect in environments that require persistent innovation and problem-solving rather than the ones that centres just on routine application. Overall the moderated model demonstrated that learning orientation plays both direct and contingent role in enhancing organisational resilience thus strengthening the need for organisations to not only invest in KM practices but also foster a strong learning orientation to maximise resilience outcomes.

Conclusion and Recommendations

Conclusion

The study examined the moderating effect of learning orientation on the relationship between knowledge management and organisational resilience using a survey by administering structured questionnaire to senior level managers of plastic manufacturing firms in Southwest, Nigeria. The direct effects of KA, KC and KS on OR was found to be positive and statistically significant. KST on the other hand had a positive but insignificant effect on OR. Regarding the moderating effects, LO had a positive and significant effect on the relationship between KA, KC and OR. In contrast, it had a positive but insignificant effect regarding the relationship between KS, KST and OR respectively. The study concludes that active knowledge management such as creation, sharing and acquiring have more pronounced and reliable effect on the adaptation capacity of organisations. Similarly, leaning orientation as measured by open mindedness plays a more pronounced role in exploratory knowledge processes (acquisition and creation) than in routine or archival processes (sharing and storage).

Recommendations

The management of the plastic manufacturing firms in Southwest, Nigeria should prioritise active knowledge processes by adopting and investing in systems and routines that encourage continuous knowledge acquisition, creation and sharing especially during rapidly changing or uncertain environment, The management of the firms should also invest in the development of structured knowledge repositories supported by efficient retrieval systems that will enable employees to access relevant organisational knowledge quickly during periods of disruptions and crisis. The managers of the firms should additionally develop and organise learning workshops and continuous training programmes aimed at cultivating open-mindedness and encouraging employees to question existing assumptions. Similarly, the management can establish cross-functional innovation teams to facilitate the integration of diverse expertise and perspectives by bringing different employees from different functional areas so as to stimulate knowledge creation and improve the organisation's ability to develop innovative solutions when facing environmental uncertainties. Managers of the firms should also implement crisis simulation exercises to test organisational preparedness and encourage the application of existing knowledge to unexpected situations.

Limitations of the study

Despite the expected contributions of this study in terms of practical and managerial applications, the study has some limitations and as such the findings should be interpreted within the framework of the limitations. Firstly, only one dimension of learning orientation was employed in the study which narrows the construct. Secondly, the study relied on a single respondents in each firm and this may introduce single-informant bias and limit the diversity of perspectives captured. Lastly, organisational resilience was also measured solely through the dimension of adaptation capacity. Despite that the dimension represents a core and widely accepted component of organisational resilience, the study may not fully capture the broader conceptual domain of organisational resilience.

Disclosure Statement

The author declare that no competing financial interests or personal relationships have been encountered that could have appeared to influence the work conducted in this research

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