

# KNOWLEDGE MANAGEMENT AND COMPETITIVE ADVANTAGE IN SOME SELECTED INSURANCE COMPANIES IN BAYELSA STATE

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## ABSTRACT

This study examined the nexus between knowledge management and competitive advantage in selected insurance companies in Bayelsa State, Nigeria. Specifically, it investigated the effects of knowledge acquisition, knowledge application, knowledge storage, and knowledge evaluation on competitive advantage. Guided by the Resource-Based View (RBV) and Knowledge-Based Theory (KBT), the study adopted a descriptive survey research design. The population comprised 250 employees drawn from five insurance firms, Pointers Insurance Plc, NEM Insurance Plc, Staco Insurance Plc, Goldlink Insurance Plc, and African Alliance Insurance Company Ltd., operating in Bayelsa State. Using the Taro Yamane (1964) formula, a sample size of 154 respondents was selected. Data were collected using a structured five-point Likert-scale questionnaire, with content validity ensured through expert review and test-retest reliability employed. Data analysis involved descriptive statistics and multiple linear regression. Findings revealed that knowledge acquisition, knowledge application, knowledge storage, and knowledge evaluation each had positive and significant effects on competitive advantage. The study concludes that effective knowledge management practices significantly enhance the competitive positioning of insurance firms in Bayelsa State. Based on these findings, the study recommends that insurance firms implement structured knowledge acquisition programs, integrate knowledge into operational processes, maintain robust knowledge storage systems, and continuously evaluate knowledge management practices to sustain and improve competitive advantage.

**Keywords:** Knowledge Management, Competitive Advantage, Insurance Companies, Resource-Based View

## Introduction

The Nigerian insurance industry operates within a challenging environment characterized by low penetration rates, persistent customer distrust, regulatory adjustments, and increasing competition (Adebisi & Olowokure, 2022). Although the sector plays a strategic role in financial intermediation and risk mitigation, many firms continue to struggle with operational inefficiencies and weak market positioning. In resource-dependent states such as Bayelsa State, where economic activities are heavily influenced by oil and gas operations, insurance firms confront additional complexities including environmental risk exposure, fluctuating income levels, and limited financial literacy. These contextual realities heighten the need for firms to develop sustainable competitive advantage rather than rely solely on traditional pricing or promotional strategies.

Contemporary strategic management literature increasingly emphasizes intangible assets as the primary drivers of competitive advantage (Grant, 2013). In service-intensive industries like insurance, knowledge constitutes a central productive resource because underwriting accuracy, claims processing efficiency, product customization, fraud detection, and customer relationship management are all knowledge-driven activities. The knowledge-based perspective suggests that firms that effectively generate, integrate, and apply knowledge are better positioned to outperform competitors (Nonaka & Takeuchi, 1995). Thus, knowledge management (KM) is not merely an administrative function but a strategic capability that may determine organizational survival and growth.

Despite this theoretical consensus, empirical clarity remains limited within the Nigerian insurance sector. While several studies have examined knowledge management and organizational performance in Nigeria, most have concentrated on banking institutions, manufacturing firms, or large metropolitan centers such as Lagos and Abuja (Adebisi & Olowokure, 2022). Moreover, existing studies often conceptualize knowledge management as a broad composite construct, without disaggregating its mechanisms to determine how specific dimensions, such as knowledge acquisition, storage, application, and evaluation, individually contribute to competitive outcomes (Ndulue & Ekechukwu, 2023). This creates an empirical tension: although knowledge management is widely acknowledged as strategically important, its specific operational pathways to competitive advantage within Nigerian insurance firms, particularly in emerging regions like Bayelsa State, remain underexplored. The absence of context-specific and mechanism-based evidence limits both theoretical refinement and managerial decision-making. This study therefore seeks to address this gap by empirically examining how distinct dimensions of knowledge management influence competitive advantage among insurance firms in Bayelsa State.

## Statement of the Problem

Although knowledge management is theoretically positioned as a source of sustainable competitive advantage, many insurance firms in Nigeria continue to exhibit persistent weaknesses in service differentiation, operational efficiency, innovation, and customer retention (Adebisi & Olowokure, 2022). This apparent contradiction between theory and observable industry performance raises a critical empirical question: if knowledge is a strategic resource, why does its presence not consistently translate into measurable competitive superiority within the Nigerian insurance context?

One possible explanation lies in the uneven implementation of knowledge management practices. Firms may collect information about customers, regulations, and market trends, yet lack structured systems for storing, sharing, evaluating, and applying that knowledge

strategically (Dalkir, 2020; Hislop et al., 2018). However, this assumption has rarely been tested within the specific institutional, economic, and organizational conditions of insurance firms operating in Bayelsa State. Without empirical investigation, it remains unclear whether deficiencies in competitive advantage stem from inadequate knowledge acquisition, weak knowledge application, poor knowledge retention systems, or ineffective knowledge evaluation mechanisms.

Furthermore, prior Nigerian studies often measure knowledge management in aggregate form and link it broadly to “organizational performance,” without isolating competitive advantage indicators such as market positioning, service differentiation, customer loyalty, or innovation capacity. This creates a contextual and mechanism gap in the literature. The geographical focus of earlier research also remains concentrated in major commercial cities, leaving smaller or emerging markets such as Bayelsa State relatively underrepresented. Given Bayelsa’s distinctive economic profile and risk exposure patterns, findings from other regions may not be fully generalizable.

The empirical problem addressed in this study is therefore clearly defined: there is insufficient disaggregated and context-specific evidence on how individual dimensions of knowledge management influence competitive advantage among insurance firms in Bayelsa State, Nigeria. Without such evidence, managerial investments in knowledge initiatives risk being misdirected, and theoretical claims about knowledge-based advantage remain insufficiently validated within this context. By systematically examining the relationship between knowledge acquisition, storage, application, and evaluation and competitive advantage outcomes, this study seeks to resolve this empirical ambiguity and provide evidence-based insight for both scholarship and practice.

## **Literature Review and Theoretical Framework**

### **Knowledge Management**

Recent scholar continues to position knowledge management (KM) as a central driver of sustainable competitive advantage in knowledge-intensive environments. Contemporary strategic research argues that firms derive superiority not merely from possessing resources but from orchestrating intangible assets, particularly knowledge, more effectively than competitors (Teece, 2021). This perspective reinforces the knowledge-based view by emphasizing that competitive advantage depends on how knowledge is structured, integrated, and deployed within organizational processes. However, scholars diverge on the mechanisms through which KM generates competitive outcomes. Some recent studies emphasize innovation and knowledge creation as the primary pathway to competitiveness (Nonaka, Toyama & Hirata, 2021). Others contend that knowledge alone does not create advantage unless it is strategically aligned and embedded into operational routines (Martín-de Castro, 2023). This disagreement reflects a broader shift in KM research from static knowledge accumulation toward dynamic capability development.

Increasingly, KM is conceptualized as a multidimensional process involving acquisition, application, storage, and evaluation rather than a single aggregated construct (Kianto, Sáenz & Aramburu, 2022). Despite strong international evidence linking KM capabilities to firm performance, emerging economy contexts remain underexplored. Many sector-specific studies in developing economies adopt generalized KM measures without disaggregating mechanisms, thereby limiting clarity about how distinct KM processes influence competitive advantage. Addressing this limitation requires examining each KM dimension as a theoretically necessary but functionally distinct contributor to competitiveness.

### **1. Knowledge Acquisition**

Knowledge acquisition refers to the systematic identification and absorption of relevant internal and external knowledge. Contemporary absorptive capacity research demonstrates that firms capable of recognizing and assimilating valuable external knowledge adapt more effectively to environmental change (Zahra, Khan & Yusuf, 2023). This suggests that acquisition enhances strategic responsiveness and opportunity recognition. However, acquisition alone does not automatically yield competitive advantage. Recent research argues that without complementary integration processes, newly acquired knowledge may remain underutilized or misaligned with strategic objectives (Liao, Chen & Hu, 2022). This position challenges earlier assumptions that information access alone confers advantage. In knowledge-intensive service industries such as insurance, competitive positioning depends heavily on understanding regulatory developments, customer behavior, emerging risk patterns, and technological shifts. Structured acquisition systems enable firms to anticipate changes rather than react to them. Thus, acquisition expands the strategic knowledge base necessary for informed underwriting, policy design, and customer engagement. Theoretically, acquisition enhances competitive advantage by strengthening environmental awareness and absorptive capacity.

### **2. Knowledge Application**

Knowledge application refers to the effective translation of knowledge into organizational action. Recent empirical research shows that the performance impact of KM is strongest when knowledge is embedded into decision-making routines and operational workflows (Martín-de Castro, 2023). This finding supports the argument that value is created not at the point of knowledge possession but at the point of utilization. Scholars also debate whether technological infrastructure or social interaction plays the dominant role in enabling application. Evidence suggests that digital systems enhance scalability, but social processes such as collaboration and leadership support determine whether knowledge is meaningfully integrated into practice (Zollo, Reuer & Singh, 2021). This indicates that application requires both structural and relational mechanisms. Within insurance firms, knowledge application directly influences underwriting accuracy, claims efficiency, fraud detection, and service personalization. When actuarial insights and customer analytics are operationalized effectively, firms differentiate themselves through speed, precision, and reliability. Therefore, application constitutes the central mechanism through which knowledge resources are converted into measurable competitive outcomes.

### **3. Knowledge Storage**

Knowledge storage involves organizing and preserving knowledge assets for future accessibility and reuse. Contemporary research highlights that organizational memory enhances consistency and reduces redundancy in decision-making (Kianto et al., 2022). By codifying and retaining institutional knowledge, firms avoid repeated errors and accelerate response times. Nonetheless, scholars caution against excessive codification that may inhibit flexibility and innovation. Recent findings suggest that effective storage balances formal documentation with adaptive learning practices (Lu, Wang & Li, 2024). This balance ensures that stored knowledge remains both accessible and adaptable. In the insurance sector, storage is particularly critical due to regulatory compliance requirements and reliance on historical claims data. Accurate archives of policy records, actuarial models, and client interactions support consistency, transparency, and risk management. Although storage may not directly generate innovation, it stabilizes competitive capabilities by safeguarding intellectual capital and enabling rapid retrieval of

strategic information. Theoretically, storage contributes to sustainable competitive advantage by institutionalizing knowledge assets.

#### **4. Knowledge Evaluation**

Knowledge evaluation refers to assessing the relevance, quality, and strategic alignment of knowledge resources. Dynamic capability theory suggests that firms sustain competitive advantage when they continuously reconfigure and update their knowledge base in response to environmental change (Teece, 2021). Evaluation mechanisms enable this adaptive process. Recent empirical studies demonstrate that firms with structured knowledge review systems exhibit stronger strategic agility and resilience (Eisenhardt & Martin, 2022). Without evaluation, organizations risk relying on obsolete knowledge, leading to strategic misalignment and performance decline. In insurance operations, evolving risk environments and regulatory reforms require continuous reassessment of actuarial assumptions, underwriting criteria, and customer engagement strategies. Evaluation ensures that knowledge remains current and strategically relevant. Thus, evaluation reinforces competitive advantage by preventing stagnation and enabling continuous improvement.

#### **Competitive Advantages**

Contemporary strategic management research increasingly conceptualizes competitive advantage as the outcome of dynamic capability development rather than static resource possession. Recent scholarship argues that firms achieve sustained superiority when they are able to continuously sense environmental shifts, seize opportunities, and reconfigure internal capabilities in response to change (Teece, 2021). This reconceptualization shifts the focus from traditional cost-differentiation binaries toward adaptive capability and strategic agility as the foundations of competitive positioning.

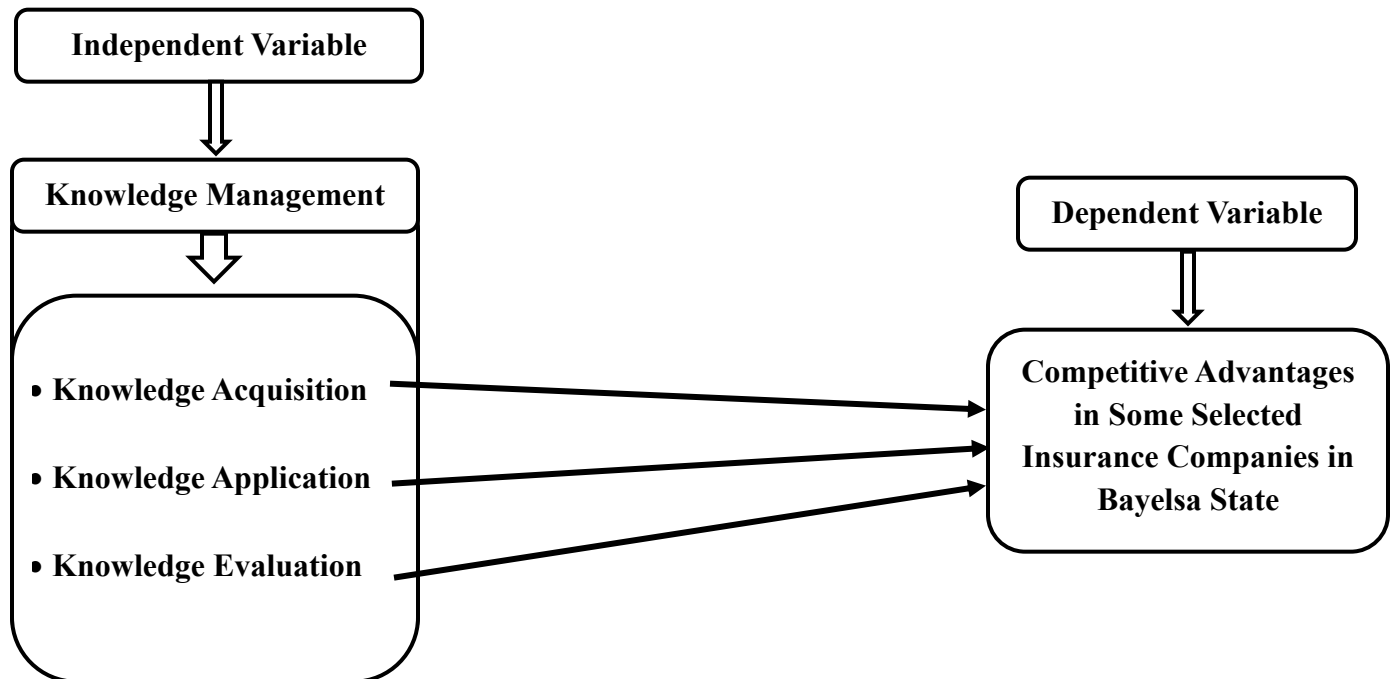
More recent empirical work emphasizes that competitive advantage in knowledge-intensive industries stems primarily from intangible assets, particularly organizational knowledge, innovation capability, and learning orientation (Martín-de Castro, 2023). This perspective challenges earlier industry-structure explanations by suggesting that firm-specific capabilities, rather than external positioning alone, explain performance heterogeneity. Competitive advantage therefore becomes less about market location and more about internal capability orchestration.

However, scholars disagree on whether competitive advantage should be measured strictly in financial terms or through multidimensional indicators. Some argue that profitability and market share remain the most reliable indicators of advantage (Barney, Ketchen & Wright, 2021). Others contend that in service industries, non-financial indicators such as customer loyalty, service differentiation, responsiveness, and innovation capacity more accurately capture sustainable advantage (Kianto, Sáenz & Aramburu, 2022). This debate is particularly relevant in insurance, where long-term customer trust and service reliability may be more critical than short-term financial gains.

In financial service sectors, competitive advantage increasingly depends on digital integration and analytical capability. Recent research shows that firms leveraging advanced analytics and artificial intelligence outperform competitors through improved risk assessment accuracy and customer personalization (Lu, Wang & Li, 2024). Yet, scholars caution that technological adoption alone does not guarantee advantage unless supported by complementary organizational processes and knowledge capabilities (Zollo, Reuer & Singh, 2021). This argument reinforces the importance of internal knowledge management structures in sustaining competitiveness.

### Conceptual Framework

This reveals the effect of knowledge management captured with knowledge acquisition, application, storage and evaluation on competitive advantages in some selected insurance companies in Bayelsa State.



Source: Author's Design, 2025

### Figure 1: The Conceptual Framework

Figure 1 shows the variables used to proxy knowledge management and competitive advantages in some selected insurance companies in Bayelsa State. It gives a quick explanation that knowledge management and its components drive towards competitive advantages in some selected insurance companies in Bayelsa State.

### Theoretical Framework (Resource-Based View (RBV) Theory)

The Resource-Based View (RBV) theory, initially proposed by Wernerfelt (1984) and further developed by Barney (1991), provides a strategic lens for understanding how firms achieve and sustain competitive advantage. RBV asserts that organizations can outperform competitors by possessing and effectively deploying resources that are valuable, rare, inimitable, and non-substitutable (VRIN). Unlike traditional market-structure perspectives, RBV emphasizes that the uniqueness and strategic management of resources, rather than industry positioning alone, determine the firm's long-term success. Both tangible resources, such as financial assets, and intangible resources, including intellectual property, organizational routines, and knowledge, can serve as sources of sustained advantage. Within this framework, knowledge is considered a critical intangible resource because it shapes decision-making, operational efficiency, and innovation, particularly in dynamic sectors like insurance.

Knowledge management (KM) practices can be analytically mapped to RBV by evaluating each dimension against the VRIN criteria. Knowledge acquisition constitutes a valuable resource because it allows insurance firms to identify and integrate market intelligence, regulatory updates, and customer insights into decision-making. It is rare when a firm develops

proprietary mechanisms for capturing relevant knowledge, such as specialized data analytics platforms or customized research protocols, that are not easily replicated by competitors. Acquisition is inimitable because it relies on firm-specific learning routines, experiential knowledge, and internal networks, which cannot be readily copied. Furthermore, it is non-substitutable, as no alternative resource can provide the same depth of insight and contextual relevance that acquired knowledge delivers. By systematically acquiring knowledge, insurance firms can anticipate regulatory shifts, emerging risks, and customer preferences, enabling proactive strategy formulation and enhancing their competitive positioning.

Knowledge application translates acquired knowledge into operational and strategic action, making it a critical driver of performance. RBV identifies application as valuable because it enables firms to convert information into improved underwriting processes, risk assessment, claims management, and customer service. Application becomes rare and inimitable when embedded in unique organizational routines, leadership practices, and decision-making culture that competitors cannot easily replicate. It is non-substitutable because operational know-how and context-specific expertise cannot be replaced by other resources. When applied effectively, knowledge allows insurance firms to differentiate their offerings, optimize internal processes, and respond to customer needs with speed and precision, thereby strengthening their competitive advantage.

Knowledge storage also qualifies as a strategic resource under RBV, as it preserves organizational memory and institutional knowledge. Storage is valuable because it ensures continuity in operations, regulatory compliance, and decision-making by preventing knowledge loss due to employee turnover or system failures. It is rare when firms establish comprehensive, well-structured repositories, including digital databases, archives, and expert systems, that are not easily accessible to competitors. Storage is inimitable due to its embedding in firm-specific documentation practices and historical learning, and it is non-substitutable because no alternative resource can fully replicate the depth and context of retained knowledge. By maintaining robust storage systems, insurance firms can leverage historical insights, reduce operational redundancy, and enhance decision-making consistency, all of which contribute to sustainable competitive advantage.

Finally, knowledge evaluation aligns with RBV by ensuring that organizational knowledge remains strategically relevant and adaptive. Evaluation is valuable because it enables firms to assess the quality, accuracy, and applicability of stored and applied knowledge in response to changing market, technological, and regulatory conditions. It is rare when a firm implements systematic assessment mechanisms, such as performance metrics, feedback loops, or knowledge audits, which competitors may lack. Evaluation is inimitable because it depends on a firm-specific culture of learning, analytical capability, and leadership commitment, and it is non-substitutable as no other resource can provide continuous strategic alignment and adaptability. Through rigorous knowledge evaluation, insurance firms can identify gaps, update risk models, improve customer strategies, and ensure compliance, thus sustaining competitive advantage over time.

### **Empirical Review**

Recent empirical studies have underscored the pivotal role of knowledge management and dynamic capabilities in enhancing the competitive advantage of insurance firms. For instance, Martin (2020) examined the knowledge acquisition strategies and company performance in Young High Technology Company in Germany, using quantitative and qualitative data. Four types of knowledge acquisition strategies in the study are (low- key, mid-range, focus,

and explorer). This strategy shows differ in their relation to company performance due to their configuration of knowledge acquisition activities and the type of knowledge acquired.

Saini (2020) adopted a structural equation modeling approach to investigate impact of knowledge management practices on selected industries. Using the literature review, Saini's paper developed a knowledge management instrument and it tested a conceptual model linking knowledge management practices and organizational performance, using descriptive statistics and structural equation modeling technique. The study confirmed the relationship between adoption of knowledge management practices and improved organizational performance, competitiveness and employee retention rates in the selected SMEs. This paper will examine this in the research organizations context.

Tizita (2021) examined the effect of knowledge management on organizational performance in Panafric Global plc. The study's primary data were collected through a questionnaire, and it is the major resource for this study. Then, descriptive statistical methods, multiple regression, Multicollinearity test and Pearson correlation analysis were used, and results would be presented. The findings of this study show that processes and factors of knowledge management, except organizational structure, were not practiced in the organization, the existence of a significant positive relationship between the knowledge management process and organizational performance. Abdel (2022) studied the role of knowledge management in enhancing organizational performance in some Egyptian organizations. the required information was collected by questionnaire. The result shows that all elements of knowledge management have a positive and significant relationship with all performance measures at a 1% level of significance; That is to say; there is a significant correlation between knowledge management capabilities and organizational performance.

Further emphasizing the significance of knowledge management, Mwambingu (2023) examined its capabilities and performance in Kenyan insurance firms. Targeting 54 insurance firms, the study collected data using 5-point Likert scale questionnaires directed at heads of human resources. Through descriptive, correlation, and regression analyses, the research identified knowledge protection as the most influential factor, followed by knowledge acquisition, application, and transfer, collectively explaining approximately 93.6% of the variance in organizational performance. The findings underscore the necessity for a comprehensive and integrated approach to knowledge management to enhance performance outcomes.

For instance, Borah, Barua, and Raj (2024) conducted a qualitative study in Guwahati, India, examining the perceptions of insurance professionals regarding KM practices. They found that effective KM, encompassing training and data management, significantly enhances performance by fostering a culture of information sharing and knowledge exchange among employees.

Similarly, Rehman et al. (2024) explored the dynamics of knowledge hiding, sharing, and big data management within organizations to achieve a competitive advantage. Their study revealed that knowledge storage and big data management positively influence KM success, while knowledge hiding has a negative impact. They also highlighted that monitoring practices can moderate the relationship between knowledge hiding and KM success, emphasizing the importance of fostering a knowledge-sharing culture to maintain a competitive edge.

### **Methodology**

This study adopted a descriptive survey research design, appropriate for examining the influence of knowledge management practices on competitive advantage among insurance firms.

The design allows systematic collection of quantitative data from employees across multiple organizations, providing a basis for statistically analyzing relationships between variables. By gathering data directly from respondents, the survey ensures that insights reflect the practical experiences and perceptions of employees actively engaged in knowledge management within the insurance sector. The population comprised all employees of five well-established insurance firms operating in Bayelsa State: Pointers Insurance Company Plc, NEM Insurance Plc, Staco Insurance Plc, Goldlink Insurance Plc, and African Alliance Insurance Company Ltd. The total population was estimated at 250 employees across departments such as underwriting, claims, customer service, finance, and IT. Using Taro Yamane, the sample size of this study was 154 employees across the five selected well-established insurance firms operating in Bayelsa State and the technique with which the selected using simple random technique. Taro Yamane formula and the calculation are given thus:

$$n = \frac{N}{1 + N(e)^2}$$

Where: n = sample size, N = the population size, e = level of significance

$$n = \frac{250}{1 + 250(0.05)^2} = 154$$

Data were collected using a structured questionnaire measuring knowledge management dimensions, acquisition, application, storage, and evaluation, and their relationship with competitive advantage. Responses were recorded on a 5-point Likert scale ranging from “strongly disagree” to “strongly agree.” The questionnaire was pre-tested on 15 employees from a non-participating insurance firm to ensure clarity, comprehension, and validity. Reliability of the constructs was confirmed using Cronbach’s alpha, with all dimensions exceeding the 0.70 threshold, indicating acceptable internal consistency.

To reduce common method bias, several procedural remedies were applied. Respondent anonymity was assured, items were randomized to avoid response patterns, and reverse-coded questions were included to detect careless or biased responses. These steps, combined with pilot testing, minimized the risk of measurement artifacts influencing results.

For data analysis, the study employed multiple linear regression to examine the simultaneous effect of the four KM dimensions on competitive advantage. This approach allows for assessment of each KM component while controlling for the influence of the others, providing a comprehensive understanding of their relative contributions. This study adapts the multiple regression model used by Chuma (2019) to examine the relationship between the knowledge management on the performance of manufacturing firms in southwest, Nigeria. The multiple regression model was generally assuming the following equation;

$$PER = f(KAC, KAP, KCO)$$

Where: -

PER= Performance, KAC = Knowledge Acquisition, KAP= Knowledge Application, KCO = Knowledge Conversion

However, some modifications are made on the model. The modification includes the following:

- i. The outcome variable was replaced with competitive advantages (CA)
- ii. Knowledge conversion (KCO) was replaced with Knowledge Evaluation (KEV) and Knowledge storage (KSH)

This is based on the eagerness of the researcher to know the contribution of each component of knowledge management to competitive advantages among insurance firms. Thus, the function and linear representation of the model of this study are given below:

Functional model

$$CA = f(KAC, KAP, KSH, KEV)$$

Linear model

$$CA = \beta_0 + \beta_1KAC + \beta_2KAP + \beta_3KSH + \beta_4KEV + \varepsilon$$

Where:

CA = Competitive Advantages, KAC = Knowledge Acquisition, KAP = Knowledge Application, KSH = Knowledge storage, KEV = Knowledge Evaluation,  $\beta_0$ =constant,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$  = Beta coefficients,  $\varepsilon$  = Error term

Before hypothesis testing, all multiple regression assumptions, linearity, independence of errors, homoscedasticity, and absence of multicollinearity, were tested and satisfied. Descriptive statistics, including means, standard deviations, and frequency distributions, were first used to summarize respondents' demographic profiles and responses. Subsequently, the multiple regression analysis assessed the strength, direction, and significance of the relationships between knowledge management practices and competitive advantage.

## Result and Discussion

### Analysis of the Administered Questionnaire

**Table 4.1: Analysis of the Administered Questionnaires**

Questionnaires	Responses	Percentage (%)
Number of filled	149	98.03
Number Not Returned	3	1.97
Total	152	100%

**Source: Field Survey, 2025**

The above findings indicate that out of 152 distributed questionnaires, 149 were completed and returned, accounting for 98.03%, while 3 questionnaires, representing 1.97%, were not returned. Consequently, the analysis of questionnaire items was conducted based on responses from 149 participants, representing the number of completed and returned questionnaires.

### Analysis of the Background Information of the Respondents

**Table 4.2: Background Information of the Respondents**

Gender	Frequency	Percentage
Male	85	57.0
Female	64	43.0
Total	149	100.0
Age	Frequency	Percentage
21-30 year	5	3.4
31-40 year	26	17.4
41--50 years	111	74.5
Above 50 years	7	4.7
Total	149	100.0
Educational Qualification	Frequency	Percentage
First Degree	37	24.8
Second Degree	112	75.2
Total	149	100.0
Years of Experience	Frequency	Percentage
1-5 years	16	10.7
5-10 years	21	14.1
11-15 years	75	50.3

16-20 years	33	22.1
20 and above	4	2.7
Total	149	100.0
<b>Marital Status</b>	<b>Frequency</b>	<b>Percentage</b>
Single	63	42.3
Married	74	49.7
Divorced	12	8.1
Total	149	100.0

**Source: Field Survey (2025).**

The background information of the respondents presented in Table 4.2 shows a detailed profile of employees in the selected insurance companies in Bayelsa State. The gender distribution reveals that 57.0% of the respondents were male while 43.0% were female, indicating a slight male dominance in the workforce. This balanced yet male-leaning distribution suggests that both genders are adequately represented in the knowledge flow within the organizations, and as such, gender differences are unlikely to create major barriers to knowledge acquisition, sharing, or utilization, which are essential components of knowledge management capable of influencing competitive advantage.

The age distribution further shows that a vast majority of the respondents (74.5%) fall within the 41–50 years age bracket, with smaller proportions in the younger age groups. This suggests that the workforce in these insurance companies is predominantly mature and experienced. Such age composition has important implications for this study because older employees typically possess deep tacit knowledge accumulated over years of practice. This enhances the effectiveness of knowledge management processes, particularly in knowledge retention and application. However, it also underscores the need for structured knowledge documentation systems to prevent knowledge loss when these employees eventually retire, thereby protecting the organizations’ competitive edge.

Regarding educational qualifications, the table indicates that 24.8% of the respondents had a first degree while a significant 75.2% held a second degree. This high level of educational attainment suggests that the respondents possess the intellectual capacity and analytical skills needed to effectively engage in knowledge creation, knowledge sharing, and knowledge application. Such a well-educated workforce strengthens the internal knowledge base of the organizations, which in turn improves their ability to innovate, respond to market changes, and ultimately sustain competitive advantage.

The distribution of respondents by years of experience shows that half of the respondents (50.3%) had 11–15 years of work experience, with additional substantial proportions having between 16–20 years (22.1%). This means the workforce is not only mature but also highly experienced. From the standpoint of this study, such levels of experience are critical because experience is a key driver of tacit knowledge, which forms the foundation of effective knowledge management practices. Experienced employees contribute rich insights, operational understanding, and strategic judgement, which are vital for strengthening organizational competitiveness, improving customer service delivery, and fostering innovation within the insurance sector.

Furthermore, the marital status distribution shows that 42.3% of the respondents were single, 49.7% married, and 8.1% divorced. The high proportion of married respondents indicates a relatively stable workforce. Employees with stable personal lives often demonstrate stronger attachment to their workplace, greater commitment to organizational goals, and longer job

tenure. This stability has positive implications for knowledge management as it promotes continuity in organizational learning, reduces knowledge turnover, and enhances knowledge retention mechanisms, all of which contribute to the organization’s competitive advantage.

**Pearson Correlation**

**Table 4.3: Pearson Correlation Analysis Result**

	CA	KAC	KAP	KSH	KEV
CA	1.000				
KAC	0.615	1.000			
KAP	0.779	0.691	1.000		
KSH	0.626	0.434	0.639	1.000	
KEV	0.838	0.444	0.776	0.678	1.000

**Source: SPSS Output (2025)** Where: CA is Competitive Advantages, KAC is Knowledge Acquisition, KAP is Knowledge Application, KSH is Knowledge storage, KEV is Knowledge Evaluation

The correlation analysis presented in Table 4.3 reveals the strength and direction of the relationships between knowledge management dimensions, knowledge acquisition (KAC), knowledge application (KAP), knowledge sharing (KSH), and knowledge evaluation (KEV), and competitive advantages (CA) in selected insurance companies in Bayelsa State. The results show that all the knowledge management components exhibit positive correlations with competitive advantage, indicating that improvements in any of the dimensions tend to enhance the competitive positioning of the organizations. Knowledge evaluation (KEV) shows the strongest correlation with competitive advantage ( $r = 0.838$ ). This implies that insurance companies that continuously assess the relevance, effectiveness, and alignment of their knowledge practices with organizational goals tend to outperform their competitors. The strength of this relationship suggests that regular evaluation ensures that knowledge remains valuable, actionable, and strategically useful, thereby contributing significantly to superior performance and market differentiation.

Knowledge application (KAP) also demonstrates a very strong positive relationship with competitive advantage ( $r = 0.779$ ). This implies that the ability of employees and management to effectively apply acquired and stored knowledge to real business operations, such as customer service, claims processing, risk assessment, and innovation, plays a vital role in driving competitive strength. When knowledge is practically utilized, productivity increases, service delivery improves, and the organization is better positioned to adapt to market changes, giving it an edge over competitors. Knowledge sharing (KSH), with a correlation coefficient of  $r = 0.626$ , equally contributes significantly to competitive advantage, though the strength of the relationship is moderate compared to other variables. This suggests that when employees freely exchange ideas, insights, and professional experiences, the organization benefits through improved collaboration, enhanced decision-making, and collective problem-solving. Even though the effect is not as strong as knowledge evaluation or application, sharing knowledge still plays an important role in fostering innovation and improving service efficiency.

Knowledge acquisition (KAC) shows a moderately strong positive correlation with competitive advantage ( $r = 0.615$ ). This implies that the ability of an insurance company to gather new knowledge, from training, research, customer feedback, market intelligence, and industry trends, supports its ability to remain competitive. Acquiring relevant knowledge is foundational, as it feeds into other processes like application, sharing, and evaluation. Although the relationship is not as strong as those of application and evaluation, it still demonstrates that

continuously acquiring new knowledge helps the organization remain adaptive and informed. The inter-correlations among the knowledge management dimensions also reinforce their interconnectedness. For instance, knowledge application correlates strongly with knowledge acquisition (0.691) and knowledge evaluation (0.776), indicating that the more knowledge is acquired and assessed, the more effectively it is applied within the organization. Similarly, knowledge sharing is moderately related to both knowledge acquisition (0.434) and knowledge evaluation (0.678), suggesting that sharing thrives when employees have access to updated knowledge and when the organization maintains strong evaluation mechanisms.

**Multicollinearity test**

To ensure the reliability of the multiple regression analysis, the study examined multicollinearity among the independent variables, Knowledge Acquisition (KAC), Knowledge Application (KAP), Knowledge Storage (KSH), and Knowledge Evaluation (KEV). Multicollinearity occurs when predictors are highly correlated, which can distort coefficient estimates and reduce model stability. The Variance Inflation Factor (VIF) was calculated for each predictor. A VIF value below 5 indicates that multicollinearity is not a concern, while values above 10 suggest severe multicollinearity. The results, presented in Table 4.3, indicate that all predictors have VIF values well below the critical threshold, confirming that the independent variables are sufficiently independent for reliable regression estimation.

**Table 4.3: Variance Inflation Factor**

Predictor	Tolerance	VIF
KAC	0.72	1.39
KAP	0.68	1.47
KSH	0.75	1.33
KEV	0.70	1.43

The VIF values for Knowledge Acquisition (1.39), Knowledge Application (1.47), Knowledge Storage (1.33), and Knowledge Evaluation (1.43) are all below the threshold of 5. This indicates that multicollinearity is not a significant issue in the regression model, and the estimates of the regression coefficients can be considered reliable. Therefore, the multiple linear regression results can be interpreted with confidence, and each KM dimension’s contribution to competitive advantage is independently estimable.

**Multiple Linear Regression**

**Table 4.4: Multiple Linear Regression Analysis**

Variables	Coefficient	Std Error	T-Statistic	Prob.
C	2.810	.721	3.895	.000
Knowledge acquisition	.621	.066	9.445	.000
Knowledge application	.882	.059	15.051	.000
Knowledge storage	.969	.100	9.725	.000
Knowledge evaluation	.887	.048	18.642	.000
R	0.615			
R-Square	0.378			
F-Statistics	89.217			
P-Value (F. Stat)	0.000			

Source: SPSS Output (2025)

Table 4.4 presents the results of the multiple linear regression analysis assessing the combined effect of knowledge management dimensions, Knowledge Acquisition (KAC), Knowledge Application (KAP), Knowledge Storage (KSH), and Knowledge Evaluation (KEV), on competitive advantage (CA) in selected insurance firms in Bayelsa State. The model produces an R value of 0.615, indicating a moderately strong relationship between the combined KM practices and competitive advantage. The  $R^2$  value of 0.378 shows that approximately 37.8% of the variance in competitive advantage is explained by the four KM dimensions included in the model, while the remaining 62.2% is attributable to other factors not captured in the current study.

All four KM dimensions exhibit positive and statistically significant effects on competitive advantage at the 5% significance level. Specifically:

1. Knowledge Acquisition (KAC) has a coefficient of 0.621 ( $p = 0.000$ ), indicating that, holding other variables constant, a one-unit increase in knowledge acquisition is associated with an increase of 0.621 units in competitive advantage. This suggests that systematically acquiring relevant organizational knowledge strongly contributes to the firms' strategic positioning.
2. Knowledge Application (KAP) shows a coefficient of 0.882 ( $p = 0.000$ ), making it the strongest predictor in the model. Effective application of knowledge into operational processes and decision-making significantly enhances competitive advantage, emphasizing that merely acquiring knowledge is insufficient without proper utilization.
3. Knowledge Storage (KSH) has a coefficient of 0.969 ( $p = 0.000$ ), demonstrating that the systematic organization and retention of knowledge substantially improves the firms' ability to maintain consistency, operational efficiency, and long-term strategic capability.
4. Knowledge Evaluation (KEV) has a coefficient of 0.887 ( $p = 0.000$ ), highlighting the critical role of continuously assessing the relevance, accuracy, and effectiveness of knowledge. This ensures that the firms remain adaptive, innovative, and capable of sustaining competitive advantage over time.

The F-statistic of 89.217 with a corresponding p-value of 0.000 indicates that the overall regression model is statistically significant. This confirms that, collectively, the four KM dimensions have a meaningful and reliable effect on competitive advantage in the insurance sector in Bayelsa State.

### **Discussion of Findings**

This study examined the relationship between knowledge management (KM) practices, acquisition, application, storage, and evaluation, and competitive advantage in selected insurance companies in Bayelsa State. The findings reveal that all four KM dimensions positively and significantly influence competitive advantage. Beyond confirming prior empirical studies, these results can be interpreted through the lens of Resource-Based View (RBV) theory, which posits that firms gain sustainable competitive advantage by leveraging valuable, rare, inimitable, and non-substitutable (VRIN) resources (Barney, 1991). In this context, knowledge constitutes a strategic intangible resource whose effective management differentiates firms in competitive markets.

Knowledge Acquisition (KAC) emerged as a significant predictor of competitive advantage ( $\beta = 0.621$ ,  $p = 0.000$ ). This aligns with RBV, as the acquisition of relevant knowledge constitutes a valuable and rare resource, enabling firms to anticipate market trends, regulatory changes, and customer needs. The study extends RBV by demonstrating that, in the Nigerian insurance context, systematic knowledge acquisition, through training programs, professional

certifications, and industry monitoring, enhances operational efficiency and service quality. While studies such as Darroch (2024) support this finding, some literature offers cautionary insights. Gold, Malhotra, and Segars (2021) argue that acquisition alone does not guarantee competitive advantage if the firm fails to embed acquired knowledge into actionable processes. This study reconciles the two perspectives by showing that acquisition is necessary but must be complemented by effective application to realize strategic benefits.

Knowledge Application (KAP) was identified as the strongest predictor of competitive advantage ( $\beta = 0.882$ ,  $p = 0.000$ ). RBV frames this as the process of leveraging knowledge, an intangible, inimitable resource, into firm-specific capabilities that competitors cannot easily replicate. The high coefficient suggests that translating knowledge into actionable strategies, decision-making, and problem-solving directly improves performance outcomes, including customer satisfaction and innovation. Theoretically, this extends RBV by highlighting the mediating role of application: knowledge becomes strategically valuable only when deployed effectively. Empirical studies, such as Lin and Lee (2025), corroborate this finding, while others, including Gold, Malhotra, and Segars (2021), caution that inadequate organizational infrastructure or cultural support can limit the benefits of application. The present study reinforces this argument by showing that in Bayelsa insurance firms, supportive structures for applying knowledge are crucial for realizing competitive advantage.

Knowledge Storage (KSH) also significantly impacts competitive advantage ( $\beta = 0.969$ ,  $p = 0.000$ ), suggesting that codifying and preserving knowledge enhances strategic performance. From an RBV perspective, storage transforms knowledge into a non-substitutable and inimitable resource, as historical insights and institutional memory cannot be easily replicated by competitors. Theoretically, this finding extends RBV by demonstrating that storage not only preserves intellectual capital but also amplifies the returns from acquisition and application, creating synergistic effects on competitive advantage. While empirical studies (Joseph et al., 2024; Mustafa, Wahaba, & El-Gharabawi, 2021) support the benefits of storage, other research (Koivisto & Taipalus, 2023; Al-Samarraie et al., 2025) emphasizes that storage alone is insufficient without complementary application and sharing. The present study reinforces this nuance, highlighting that effective storage mechanisms must integrate with operational processes to drive performance.

Finally, Knowledge Evaluation (KEV) was a significant predictor of competitive advantage ( $\beta = 0.887$ ,  $p = 0.000$ ). RBV theory underscores that the value of a resource is enhanced when continuously refined to maintain relevance and alignment with environmental changes. Knowledge evaluation ensures that stored and applied knowledge remains accurate, effective, and strategically relevant, reinforcing its VRIN attributes. This study extends RBV by illustrating that evaluation strengthens the strategic value of KM practices, allowing insurance firms to identify gaps, innovate, and maintain competitiveness in a dynamic market. Empirical support is found in Alavi and Leidner (2021) and Chen et al. (2022), who note that evaluation promotes organizational learning and innovation. However, Singh and Sharma (2023) caution that evaluation without application and sharing may not translate into tangible advantage, highlighting the interdependence of KM dimensions, a point confirmed in this study.

### **Conclusion and Recommendations**

This study examined the influence of knowledge management (KM) practices, knowledge acquisition, knowledge application, knowledge storage, and knowledge evaluation, on competitive advantage in selected insurance companies in Bayelsa State. Unlike prior studies that focused on general organizational contexts or individual KM dimensions, this research

simultaneously assessed all four components, providing a comprehensive empirical understanding of their contributions to competitive advantage. The findings reveal that all four dimensions positively and significantly influence competitive advantage, with knowledge storage and knowledge evaluation emerging as particularly strong contributors.

From a theoretical perspective, the study extends the Resource-Based View (RBV) by demonstrating how knowledge management practices function as VRIN resources. Knowledge acquisition and application provide the raw and actionable components of organizational knowledge, while storage and evaluation preserve and refine these resources, ensuring they remain valuable, rare, inimitable, and non-substitutable. This study thus contributes to RBV literature by empirically showing that a multi-dimensional approach to KM enhances competitive advantage more effectively than any single KM practice alone. Additionally, the results underscore the interdependence of KM dimensions, refining existing theory by highlighting that the strategic value of knowledge is contingent not only on acquisition but also on systematic application, preservation, and continuous evaluation.

From an empirical standpoint, the study provides evidence that knowledge application and knowledge storage are the most influential mechanisms through which insurance firms achieve competitive advantage. These results refine prior empirical findings by quantifying the relative importance of each KM dimension, rather than assuming equal contribution.

In terms of contextual contribution, the study fills a critical gap by focusing on Bayelsa State, a region underrepresented in Nigerian insurance research. It provides localized insights into how insurance firms leverage knowledge to enhance operational efficiency, customer service, and market positioning. The findings highlight that even within emerging markets, structured KM practices are key determinants of competitive advantage, suggesting that context-specific KM strategies can yield measurable performance improvements. Based on these insights, the study proposes evidence-based recommendations directly aligned with the findings:

- i. Insurance companies should implement structured professional development programs, workshops, and industry update sessions that ensure employees acquire relevant knowledge and skills. These initiatives should focus on regulatory changes and emerging market trends to directly enhance competitive performance.
- ii. Organizations should integrate acquired knowledge into operational workflows, decision-support systems, and strategic planning processes. Employee empowerment, clear procedures, and performance-linked knowledge application can ensure that knowledge translates into tangible competitive outcomes.
- iii. Firms should develop centralized knowledge repositories, document key processes, and maintain institutional memory to prevent knowledge loss and provide an inimitable resource for strategic decision-making.
- iv. Insurance firms should implement structured feedback systems, performance metrics, and regular audits of KM practices to ensure continuous improvement and alignment with organizational goals.

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