

Knowledge Storage and Performance of Shipping Companies in Kenya

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ABSTRACT

Knowledge storage denotes the organizational memory formation process, in which knowledge is officially stored in physical memory systems and informally reserved as values, rules and beliefs that are associated to culture and organizational structure. The study examined the influence of knowledge storage on performance of shipping companies in Kenya. The study was grounded on knowledge based theory and adopted descriptive research design to collect data, summarize, present and interpret information across the various sections for easy interpretation. The first level target population of the study was seventy six (76) shipping companies licensed and supervised by Kenya Maritime Authority, and operational as the end of 2025, and those formed the unit of analysis. The accessible population were management and supervisory staff in the shipping companies and their compliment was nine hundred and twelve (912), and formed the unit of observation. A sample of one hundred and sixty one (161) respondents was derived using Nasiuma model for participation in the final study. Proportionate stratified random sampling technique was used to select respondents; and questionnaires were based on five-point Likert scale and were distributed through drop and pick-up method. The study carried out a standard bivariate regression analysis and derived descriptive and inferential statistics. The study found that knowledge storage positively and significantly influenced performance of shipping companies in Kenya ($\beta = .721$, $p\text{-value} = .000$). The study recommended that shipping companies should continue using handbooks for updating relevant information in appropriate areas of operations so that they maintain a repository of valuable information.

Keywords: Performance of Shipping Companies, Knowledge Storage, Knowledge Management

INTRODUCTION

Stored knowledge can effectively safeguard the organization from the disrupting effects of turnover and can furthermore support in framing and solving problems. Given that knowledge is a critical resource, organizations recognize the worth of knowledge storage for present and future use. The preservation of knowledge which is popularly referred to as organizational memory, seems to be a major building block in implementing knowledge management in order to re-use and create knowledge (Wang & Meng, 2019).

The dynamic nature of the global business landscape necessitates that companies optimize their resource allocation, nevertheless, in many businesses, resources like knowledge and experience are frequently overlooked, underutilized, or unexplored, and organizations and individuals routinely waste their most valuable intangible assets (Yuan & Pan, 2023). Land, labour, and capital cease to be relevant traditional factors of production in the volatile, uncertain, complex, and ambiguous business environment, but their definitions, forms, and relative importance change drastically.

To support ongoing organizational learning and improved organizational performance, knowledge is created, disseminated, applied, and promoted, and best practices and important lessons learned are ingrained into corporate memory by ensuring their availability in the right place and at the right time to enable informed decision making, which allows for a comprehensive understanding of the situation, including potential risks and opportunities.

Statement of the Problem

Shipping is considered as the lifeblood of the global economy whereby more than eighty per cent of world goods are carried by ships, with global economic activities changing and the shipping industry is facing increased structural changes, with jobs becoming more fluid and broadly defined in response to the competitive business environment (Liu & Anwar, 2024). Throughout each financial year, the shipping industry apportions about 6% of its annual budget to bolster staff development of which the largest percentage goes to embedding specialist knowledge management (Busch, 2023).

The enormous investments notwithstanding, there is still subpar harnessing of the vast knowledge resources, hence the need for opening up access to knowledge platforms across the industry ecosystem for improved organizational performance. Adoption of appropriate stratagems such as knowledge management to face the strong competition in the market has sought to improve the performance of shipping companies since over 70% of businesses believe that they can boost productivity by at least 20% by implementing effective knowledge management (Wamwara et al., 2023). However, the shipping industry has had exceptional dynamics that impact on its potential sustainability and operates with inadequate resources and tend to focus on routine operational needs. Dispersed availability of expertise occasioned by high staff turnover rate estimated at 20% in the year 2023 has seen employees with expert tacit knowledge leave the industry thus necessitating continuous recruitment of staff to plug the gaps.

Bayari et al., (2022) carried out a study on impact of knowledge management on organizational performance. Sun et al., (2022) reviewed sustainable organizational performance through blockchain technology adoption and knowledge management. Andrej et al., (2023) reviewed managing knowledge to improve performance focusing on the impact of leadership style and knowledge management on organizational performance with moderation effects. Kaplong (2023) reviewed the effect of knowledge management practices on the performance of telecommunication companies. Okongo and Kiruja (2023) reviewed the influence of knowledge management practices and performance of tax collection in Nairobi County, Kenya. These occasioned conceptual, contextual and methodological gaps that this study seeks to address by reviewing knowledge storage and its influence on performance of shipping companies in Kenya.

Research Objective

The overall objective of this study was to assess the influence of knowledge storage on performance of shipping companies in Kenya.

Scope of the Study

This study focused on analysis of knowledge storage and performance of shipping companies in Kenya. The study involved seventy six (76) shipping companies operating in Kenya and duly registered by Kenya Maritime Authority as maritime service providers and categorized as shipping agents, shipping lines and cargo consolidators constituting the unit of analysis. An accessible population of nine hundred and twelve staff in management and supervisory cadres constituted the unit of observation.

LITERATURE REVIEW

Theoretical Review – Knowledge Based Theory

Propounded by Grant (1996), knowledge-based theory of the firm considers knowledge as the most tactically significant resource of an organization. Sotarauta (2018) posited that because knowledge-based resources are usually hard to imitate and are socially multifaceted, heterogeneous knowledge bases and capabilities among firms are the major determinants of sustained competitive advantage and superior organizational performance. This knowledge is embedded and carried through multiple entities including corporate culture and identity, policies, practices, documents, systems and employees (Gope et al, 2018).

The economic change of material-based production to information-based production created a reassessment of organizational workers. Increasingly there are knowledge workers at the core of organizational functions: concept and technology designers, as well as finance and management people (Shujahat et al., 2019).

Thus, the competitive success of organizations is governed by their capabilities to develop new knowledge assets to create core competences (Muzam, 2023). Though there are many approaches to knowledge-based view, the most viable is the accumulation of distinctive capabilities and core competences by organizations through the accrual of experience, articulation of knowledge and lastly codification (Ritala et al., 2023). This approach can be done through the knowledge management processes of creating, acquiring, storing, sharing and deploying knowledge. This theory therefore explains knowledge storage as an independent variable in this study.

CONCEPTUAL FRAMEWORK

The conceptual framework shows the relationship and linkage between the independent variable being knowledge storage and the dependent variable which was performance of shipping companies in Kenya. This study's conceptual framework is shown in Figure 1;

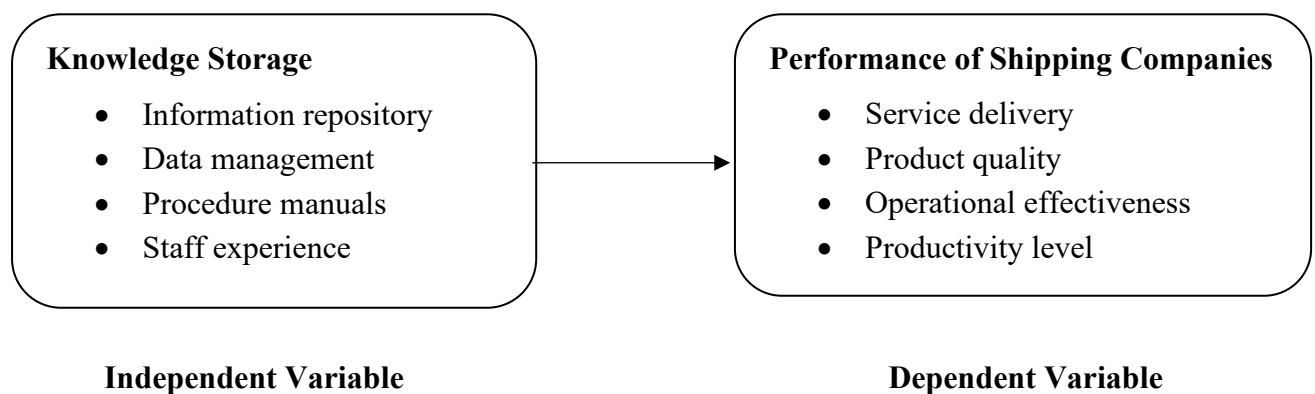


Figure 1: Conceptual Framework

Discussion of Study Variables – Knowledge Storage

Knowledge storage denotes the organizational memory formation process, in which knowledge is officially stored in physical memory systems and informally reserved as values, rules and beliefs that are associated to culture and organizational structure (Zahra et al., 2020). Storing knowledge in appropriately indexed and inter-linked knowledge repositories can increase knowledge exploitation by making knowledge easily accessible. Moreover, combining and integrating knowledge can reduce redundancy, improve representational consistency, and enhance efficiency by eradicating excess volumes.

Organizational knowledge that can be stored for future reference may include process descriptions, best practices, mistakes made, lessons learnt, results, work-related knowledge, standard operating procedures and manuals. In small and medium enterprises, knowledge resides with very few main persons and if they walk away, crucial and critical knowledge is lost (Werner, 2021). Managers also need to identify the available organizational knowledge that is beneficial to the organization and codify it using an appropriate medium.

Organizations store knowledge in a variety of repositories, also known as retention bins and there are five types of repositories that can hold knowledge: people, culture, transformations, structures, and ecology. One external bin supports both acquisition and retention of new information (Nwanzu & Babalola, 2019). People are arguably the best resource for preserving an organization's experience because they create knowledge that is primarily intrinsic while performing their jobs, which is known as implicit knowledge.

Performance of Shipping Companies

Strategic management requires the critical function of evaluating organizational performance in order to determine what strategic adjustments, if any, to make and executives need to be aware of how well their companies are doing. Organizational performance covers the actual output or results of an organization as measured against its intended outputs or goals and objectives; organizational performance also refers to the success or fulfilment of organizations at end of program or projects as it is intended.

The performance metrics incorporate quantitative otherwise called objective as well as qualitative, also called subjective measures. Quantitative measures lay emphasis on end results such as sales turnover and return on investment while qualitative measures focus on the processes by which end results are achieved such as product or service quality, product quality, employee satisfaction and commitment. Organizational performance is an organization's ability to increase market share, operate efficiently, improve service delivery, products, sales, innovative practices, and overall profitability (Wobodo & Oparanma, 2019).

Organizational performance is measured for different levels of hierarchy and can be evaluated for individuals, groups, and the entire organization. Teshome et al., (2025) pointed out that the measures for organizational performance depend on who is asking the questions and why there is need for measuring performance. Some of the reasons proffered for professionals measuring and reporting organizational performance include rationalizing the valid use of investors' money, chaperoning managerial decision-making by pointing out the distress areas, comparing performances of different functions

EMPIRICAL REVIEW

Choong and Leung (2021) noted that in the knowledge economy era of the 21st century, the competitive advantage of organizations has shifted from visible equipment, capital and labour to invisible knowledge. Knowledge can be distinguished into tacit knowledge and explicit knowledge. Therefore, tacit knowledge largely incorporates empirical knowledge that is difficult to be documented and generally hidden inside the personal mental models. The inability to change tacit knowledge to organizational knowledge would occasion it to fade after knowledge workers leave their posts, ultimately losing significant intellectual assets for organizations, hence the need to convert tacit knowledge into explicit organizational knowledge.

Mburia and Bett (2020) assessed the relationship between knowledge storage, retrieval and employee performance, and the moderating role of employee engagement in Technical and Vocational Education and Training institutions in Rift Valley, Kenya. The study used explanatory research design, targeting a population of 3,147 employees in public technical institutions in Rift Valley, out of which a sample size of 343 employees were selected using the Cochran's formula for continuous and categorical variables. The findings showed a positive relationship between knowledge storage, retrieval and employee performance.

Ouma (2023) conducted a functional analysis on knowledge management jobs in Kenya, on why most organizations in Kenya face challenges integrating the knowledge management function in their structures due to the lack of a clear understanding of what knowledge managers should do. Consequently, there currently exists varied, unpredictable and often shallow job descriptions associated with knowledge managers. The study conducted a functional analysis of knowledge management jobs in Kenya in an effort to establish the general job titles used to refer to knowledge management specialists and explore their job responsibilities.

Critique of Literature Review

Significant literature and studies done on knowledge storage and organizational performance have been conducted in developed countries and as such very few studies on the subject have been carried out locally and especially those focusing on shipping companies in Kenya. Also, in the preceding literature, various studies on the role of knowledge storage are well documented but their bearing on the overall organizational performance of shipping companies is principally circumstantial and not expressed explicitly (Choong et al., 2021).

Most of the studies have been carried out in diverse sectors including manufacturing, healthcare, educational institutions but very few were conducted most especially concerning knowledge storage and organizational performance of shipping companies. In as much as the studies share the same foundational essentials on knowledge storage, they may not automatically be generalizable so as to be applicable to the local shipping industry, which must comply with specific national maritime laws and port authorities.

Literature often treats knowledge storage as a static repository of databases and intranet archives, rather than a dynamic organizational memory. In shipping, high rotation of crew and shore-based staff creates severe knowledge leakage. Most studies fail to critically analyze how tacit operational knowledge of seamanship and emergency handling gets converted into explicit, retrievable stored knowledge before crew disembarkation.

Research Gaps

Despite there being plenty of literature and research on knowledge storage and organizational performance, few studies have reviewed the moderating factors that would influence organizational performance in a case where knowledge storage elements are applied. Thus, the association between knowledge storage and organizational performance may be moderated by corporate culture. It is imperative that corporate culture within organizations contributes to making changes in the way organizations achieve and maintain effective organizational performance.

Although the myriad studies focused on the effect of knowledge management on organizational performance with organizational culture, absorptive capacity or dynamic capabilities moderating the process, very few studies addressed knowledge storage as a subset, with the moderating effect of corporate culture on organizational performance in the shipping industry in Kenya. Mairim (2022) undertook a study on the relationship between dynamic capabilities and performance in shipping industry in Kenya.

RESEARCH METHODOLOGY

This study adopted a positivist research paradigm, which is a scientific method that is based on reasonableness and pragmatism with a view to enhancing objectivity, and formulated objectives and hypotheses being tested (Gannon et al., 2022). Research design is a plan and procedure for research that span the decisions from broad assumptions to detailed methods of data collection and analysis (Cash et al., 2022). This study adopted a descriptive research design to enable generalization of the findings to a bigger population, acquire information on the current status of the phenomena and to describe the present dynamics on subject variables. The design was appropriate for the study since it enables a thorough analysis of facts and a comprehensive understanding of the research problem.

A target population is a group of events, people or items of interest with a common observable attribute, and consists of all members of a real or hypothetical set of people, events or objects from which a researcher wishes to generalize the results of their research (Gadwal, 2022). According to the Kenya Maritime Authority Annual Report of 2025, there were seventy-six (76) shipping companies in Kenya duly licensed as shipping lines, shipping agents and cargo consolidators and these constituted the unit of analysis. The same report indicated that there were nine hundred and twelve (912) staff in management and supervisory cadres working in these companies as at close of business on 31st December 2025, and those made up the unit of observation.

According to Kumar et al., (2022), a sample refers to a section of the population designated for research to represent the population as a whole, hence samples allow researchers to conduct studies more efficiently and cost-effectively than testing every single individual in a population. How the researcher selects the study participants determines whether the findings can actually be applied to the real world. The sample in this study was chosen such that the existing subgroups in the whole population were more or less reproduced in the sample. The sample size was determined using Nasiruma (2000) formula;

$$n = (Ncv^2) / (cv^2 + (N-1) e^2)$$



where;

n = Sample size

N = Population

cv = Coefficient of variation (take 0.7)

e = Tolerance at desired level of confidence (take 0.05 at 95% confidence level).

The substituted values in determining the sample size from the target population are;

$$n = 912 * 0.7^2 / (0.7^2 + (912 - 1) 0.05^2)$$

$$n = 447 / 2.77$$

$$n = 161$$

This study used questionnaires to collect data for analysis to support or refute hypotheses and to confirm the evidence that was obtained from both qualitative and quantitative data analysis. A questionnaire is defined as a document that consists of a number of questions printed in a definite order on a form or a set of forms. The questionnaire was divided into two sections. Part A contained the identification section where the respondents gave their identification details including their position in the workplace, nature of business, number of years worked in the shipping industry and the respondents' level of education. Part B contained questions that required respondents to furnish information regarding the main areas of this study.

Authorization to carry out the study was obtained from the relevant department of Jomo Kenyatta University of Agriculture & Technology by issuing an approval letter for the research and requesting shipping companies to allow participants to take part in the process of filling in of questionnaires. A research permit was sought and obtained from National Commission for Science, Technology and Innovation (NACOSTI) and the researcher also wrote a request letter to participating companies.

Filled questionnaires were collected, cleaned and evaluated for completeness, comprehensiveness and consistency. Data was analyzed using Statistical Package for Social Sciences (SPSS) version 26 through descriptive statistics including frequencies and central tendencies and these were presented in the form of tables and pie charts. The study undertook inferential statistics where the relationship between the independent variable and the dependent variable, as well as the variation in the dependent variable as a result of the predictor variable were determined.

RESEARCH FINDINGS AND DISCUSSION

Response Rate

A total of one hundred and sixty-one (161) questionnaires were circulated by the researcher, out of which one hundred and forty nine (149) were completed and collected, accounting for 92.5% of the total number of questionnaires distributed. A response rate of 50% is regarded as average, a score between 60% and 70% is deemed adequate, and a score above 70% is deemed excellent (Stedman et al., 2019), hence the attained response was excellent for carrying out the study.

General Information

The descriptive statistics of the study showed that 66 respondents were heads of human resources and administration, 49 were heads of operations and 34 were supervisory staff. The inference is that most respondents were from human resources and administration section which deals mainly with aspects of managing organizational data and information hence knowledge management.

This study adopted internal consistency which assesses the correlation between multiple items in a test that are intended to measure the same construct vide Cronbach's alpha coefficient, and the instrument is regarded as reliable if the alpha value is 0.70 or higher. Knowledge creation with seven items returned .877 inferring reliability. The study undertook face and content validity where experts in strategic management gave the instrument a clean bill of health. Construct validity was also undertaken, but incorporated all the questionnaire items with KMO and Bartlett's test values indicating correlation in the questionnaire items.

Performance of Shipping Companies in Kenya

Respondents expressed their level of agreement or disagreement on the various statements about performance of shipping companies in Kenya and the findings were as shown;

Table 1: Performance of Shipping Companies in Kenya

Statement	n	Mean	Std. Deviation
Our company always strives to attain remarkable service.	149	3.85	.751
Continuous innovativeness by staff members is encouraged in our company.	149	3.54	.990
In our company, product quality is continuously emphasized and staff are held to account.	149	3.56	1.068
Our company regularly evaluates its internal operational processes to improve competitiveness.	149	3.56	.765
Our company continuously inculcates efficiency in staffs' operational undertakings.	149	3.81	.732
In our company, increased productivity is always encouraged by management.	149	3.64	.690
Our company focuses on enhanced service delivery for its business.	149	3.76	.723
Valid N (listwise)	149		

n = 149 (SD = Strongly Disagree; D = Disagree; N = Neither Agree nor Disagree; A = Agree; SA = Strongly Agree) *Mean = (Strongly Disagree = 0 – 1.8; Disagree = 1.9 – 2.6; Neither Agree nor Disagree = 2.7– 3.4; Agree = 3.5 - 4.2; Strongly Agree = 4.3 – 5.0).

Standard deviation values for all items in Table 4.9 were less than two (< 2) signifying that there was a general convergence of opinion and the item on companies always striving to attain remarkable service returned the highest mean score (M = 3.85, SD = .751). The results concurred with Njuguna et al., (2025) who reviewed cross-border logistics and shipping company performance in East Africa with empirical evidence from Mombasa Port, and regression models indicated that core logistics factors accounted for majority of the variance in shipping company performance, as well as fast problem solving with long-serving workers knowing how systems worked and fixed issues quickly, however, relying entirely on the knowledge of senior staff introduces specific operational vulnerabilities, and therefore balancing this immediate problem-solving speed with structured safeguards protects long-term continuity.

Knowledge Storage and Performance of Shipping Companies

Respondents provided their observations on statements relating to knowledge storage and the obtained findings were as presented in Table 2;

Table 2: Descriptive Statistics for Knowledge Storage

Statement	n	Mean	Std. Deviation
In our company, we use exit interviews to capture critical feedback from leaving employees.	149	3.76	.750
Our company encourages the use of handbooks for updating relevant information.	149	4.07	.736
There is a dedicated and authorized team to update, control and release relevant documents in our company.	149	4.05	.760
Our company consistently keeps up-to-date handbooks on processes for day-to-day operations.	149	3.95	.778
Our company regularly carries out evaluations to analyze failures and successes in operations.	149	3.95	.715
Our company often creates working manuals and standard operating procedures.	149	3.78	.861
Our company always keeps processed knowledge in databases and repositories.	149	3.78	.738
Valid N (listwise)	149		

n = 149 (SD = Strongly Disagree; D = Disagree; N = Neither Agree nor Disagree; A = Agree; SA = Strongly Agree) *Mean = (Strongly Disagree = 0 – 1.8; Disagree = 1.9 – 2.6; Neither Agree nor Disagree = 2.7– 3.4; Agree = 3.5 - 4.2; Strongly Agree = 4.3 – 5.0).

Results in Table 2 indicate that standard deviation values for all items were less than two (<2) suggesting that the views by respondents significantly converged. The strongest convergence in opinion was on the statement about companies encouraging the use of handbooks for updating relevant information (M = 4.07, SD = .736). The results concur with Thumbi et al., (2025) who reviewed influence of knowledge storage on human resource planning in the Public Service Commission of Kenya.

Regression Analysis

Regression analysis is a set of statistical techniques that are used to estimate the relationships between a dependent variable and one or more independent variables, and can be used to forecast future relationships. It allows enables understanding how the typical value of the **dependent variable** changes when any one of the **independent variables** are varied, while the other independent variables are held fixed. It was used to establish the relationship between the dependent and independent variable and the bivariate regression model adopted was;

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where;

Y = Performance of Shipping Companies

β_0 = Constant term

β_1 = Beta Coefficient

X_1 = Knowledge Storage

ε = Error term

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.694 ^a	.481	.474	.39865
a. Predictor: (Constant), Knowledge Storage				
b. Dependent Variable: Performance of Shipping Companies				

According to Table 3, the correlation coefficient, represented as R was .694, indicated a strong and positive relationship between knowledge storage and performance of shipping companies in Kenya. The model explained 48.1% variation in performance of shipping companies in Kenya. This was supported by R square value of .481, which measured the proportion of variance in performance of shipping companies that was explained by knowledge storage in the regression model. The score showed a fair fit, indicating how well the model predicted the outcome. The standard error of .39865 denoted the deviation from the line of best fit.

Table 4: ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.475	1	11.475	136.607	.000 ^b
	Residual	12.382	147	.084		
	Total	203857	148			
a. Dependent Variable: Performance of Shipping Companies						
b. Predictor: (Constant), Knowledge Storage						

ANOVA Table 4 shows that the p-value = .000 < 0.05 thus indicating that the model was statistically significant in establishing the influence of knowledge storage on performance of shipping companies in Kenya. The regression model of the independent variable and the dependent variable was significant ($F(1, 147) = 136.607$, p-value = .000), indicating that the value of F-calculated was 136.607 and therefore greater than the F-critical ($F(1, 148) = 3.905$), which also confirmed that the independent variable was suitable to be used to predict performance of shipping companies in Kenya.

Table 5: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	3.001	.381	7.871	.000
	Knowledge Storage	.721	.177	4.073	.000

a. Dependent Variable: Performance of Shipping Companies

The regression equation was represented as;

$$Y = 3.001 + .721X_1$$

Where;

Y - Performance of Shipping Companies

X₁ - Knowledge Storage

Results in Table 5 present the beta coefficients of the independent variable operationalized by knowledge storage and its influence on the dependent variable which was performance of shipping companies in Kenya.

DISCUSSION OF FINDINGS

Results in Table 3 show that there was a significant relationship between knowledge storage and performance of shipping companies as confirmed by the correlation coefficient denoted as r value of .694. The variable registered an r square value of .481 indicating that 48.1% of the variation in the target variable which was explained by the regression model. Adjusted R² was .474 meaning that 47.4% variation in performance was explained by knowledge storage and the rest could be attributed to other factors not captured in the model.

The ANOVA results presented in Table 4 indicate that the model was statistically significant in determining the influence of knowledge storage on performance of shipping companies in Kenya, with a p-value of .000 which was less than the selected significance level of 0.05. It was therefore concluded that the proposed model was significant in predicting the relationship between the independent variable and the dependent variable given that the value of F-calculated was 136.607 which was greater than the F-critical (F 1, 148 = 3.905), also confirming that the independent variable was suitable to be used to predict performance of shipping companies in Kenya.

Table 5 presents findings on the regression coefficients which formed the model equation, and had performance of shipping companies in Kenya returning a constant value of 3.001 if knowledge storage were to be held to a constant of zero. The beta coefficient (β) of knowledge storage was X₁ = .721, p-value .000; indicating the individual variable's influence on the dependent variable was significant.

The results concur with Gachanja (2026) who studied knowledge management capability and competitiveness of chartered public Universities in Kenya. The results also concur with Gathigia (2025) who reviewed knowledge management strategies and organizational performance in middle-level medical training colleges in Nairobi county, Kenya.

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The general objective of the study was to determine the influence of knowledge storage on performance of shipping companies in Kenya. The study found that shipping companies encouraged the use of handbooks for updating relevant information in appropriate areas of operations so that a repository was maintained to hold valuable information. The study also found that there were dedicated and authorized teams to update, control and release relevant documents in shipping companies to ensure systematic dissemination of information across the workspaces, which would ensure all workers were kept on the same pedestal.

The study concluded that knowledge storage had a positive and significant influence on performance of shipping companies in Kenya. Shipping companies encouraged the use of handbooks for updating relevant information in appropriate areas of operation. In most shipping companies, there was a dedicated and authorized team to update, control and release relevant documents in the company, which ensured that there was continued use of relevant knowledge in shipping companies.

Knowledge storage is a major cog in the whole edifice of pushing the aspects of performance of shipping companies in Kenya. Shipping companies should continue using handbooks for updating relevant information in appropriate areas of operations so that they could maintain a repository of valuable information. This study recommends that there should be dedicated and authorized teams to update, control and release relevant documents in shipping companies to ensure systematic dissemination of information across the workspaces, which would ensure that all workers are kept on the same pedestal.

The study recommends that in most shipping companies, knowledge should be organized and integrated in organizational reports, and shipping companies' should embrace operational processes which enhance continuous understanding and translation of knowledge. This study recommends that shipping companies ought to always promote creation of knowledge and experience between staff and relevant stakeholders so that there is streamlined approach to pursuing better performance of companies.

While knowledge creation drives innovation and knowledge application generates current value, knowledge storage is the essential mechanism that stabilizes, protects, and leverages intellectual capital over time. Without effective storage mechanisms, knowledge depreciates, leaks, or departs with individual employees, destroying any temporary competitive advantage. The fundamental theoretical contributions on how knowledge storage sustains a competitive advantage within the knowledge based view framework revolve around knowledge storage converting volatile individual-level knowledge into persistent organizational-level capital.

The study adopted descriptive survey research design, denoting that data was gathered at a specific point in time and therefore conclusions about the causal relationship between the variables as presented by the regression model could not be definitively drawn. Instead, hypothesized relationships between the variables ought to be drawn and interpreted more carefully. The circumstances make it difficult to interpret the model in the way that multiple regression analysis advocates. It is important to remember that when models are tested with longitudinal data, clear-cut causal inferences can be established. The relationship between knowledge management process and performance in shipping companies was evaluated in this study, and it differs depending on the specific dynamics of each company. Future studies on the subject could adopt longitudinal design to collect data over dispersed time periods for better regression inference.

REFERENCES

1. Andrej, N., Breznik, K., & Natek, S. (2023). Managing knowledge to improve performance: The impact of leadership style and knowledge management on organizational performance with moderation effects via PLS-SEM. *Journal of the Knowledge Economy*, 14(2), 1672-1701.
2. Bayari, R., Al Shamsi, A. A., Salloum, S. A., & Shaalan, K. (2022). Impact of knowledge management on organizational performance. In *Proceedings of International Conference on Emerging Technologies and Intelligent Systems: ICETIS 2021 Volume 2* (pp. 1035-1046). Springer International Publishing.

3. Busch, L. (2023). *Knowledge for sale: The neoliberal takeover of higher education*. MIT Press.
4. Choong, K. K., & Leung, P. W. (2021). A critical review of the precursors of the knowledge economy and their contemporary research: implications for the computerized new economy. *Journal of the Knowledge Economy*, 1-38.
5. Cash, P., Isaksson, O., Maier, A., & Summers, J. (2022). Sampling in design research: Eight key considerations. *Design studies*, 78, 101077.
6. Gadwal, A. A. (2022). *Qualitative research for social sciences*. Ashok Yakkaldevi.
7. Gannon, M. J., Taheri, B., & Azer, J. (2022). Contemporary research paradigms and philosophies. In *Contemporary research methods in hospitality and tourism* (pp. 5-19). Emerald Publishing Limited.
8. Gope, S., Elia, G., & Passiante, G. (2018). The effect of HRM practices on knowledge management capacity: a comparative study in Indian IT industry. *Journal of Knowledge Management*.
9. Kaplong, P. M. (2023). *The Effect of Knowledge Management Practices on the Performance of Telecommunication Companies in Kenya* (Doctoral dissertation, KCA University).
10. Kumar, S., Sahoo, S., Lim, W. M., Kraus, S., & Bamel, U. (2022). Fuzzy-set qualitative comparative analysis (fsQCA) in business and management research: A contemporary overview. *Technological Forecasting and Social Change*, 178, 121599.
11. Liu, M., & Anwar, S. (2024). Analyzing horizontal integration and market efficiency in platform enterprises: A case study of exchanges. *Economics & Politics*.
12. Mairim, M. S. (2022). *Effect of Dynamic Capabilities On Financial Performance Of Oil Marketing Firms In Kenya* (Doctoral dissertation, KCA University).
13. Mburia, G. S., & Bett, S. (2020). Knowledge Management Practices and Project Performance in Tharaka Nithi County, Kenya. *International Journal of Business Management, Entrepreneurship and Innovation*, 2(4), 1-15.
14. Migdadi, M. M. (2022). Impact of knowledge management processes on organizational performance: the mediating role of absorptive capacity. *Business Process Management Journal*, 28(1), 293-322.
15. Muzam, J. (2023). The challenges of modern economy on the competencies of knowledge workers. *Journal of the Knowledge Economy*, 14(2), 1635-1671.
16. Nasiruma, E. (2000). *A general Guide to Writing Research Proposal and Report*.
17. Nwanzu, C. L., & Babalola, S. S. (2019). Examining psychological capital of optimism, self-efficacy and self-monitoring as predictors of attitude towards organizational change. *International Journal of Engineering Business Management*, 11, 1847979019827149.
18. Okongo, O. K., & Kiruja, E. K. (2023). Influence of Knowledge Management Practices and Performance of Tax Collection at Kenya Revenue Authority in Nairobi County, Kenya. *International Journal of Social Sciences Management and Entrepreneurship (IJSSME)*, 7(1).
19. Ouma, O. W. (2023). *Effect of Knowledge Management Practices on Academic Performance of University Students in Kenya: A Survey of Private Chartered Universities* (Doctoral dissertation, KeMU).
20. Ritala, P., De Kort, C., & Gailly, B. (2023). Orchestrating knowledge networks: alter-oriented brokering. *Journal of Management*, 49(3), 1140-1178.
21. Shujahat, M., Sousa, M. J., Hussain, S., Nawaz, F., Wang, M., & Umer, M. (2019). Translating the impact of knowledge management processes into knowledge-based innovation: The neglected and mediating role of knowledge-worker productivity. *Journal of Business Research*, 94, 442-450.
22. Sotarauta, M. (2018). Smart specialization and place leadership: dreaming about shared visions, falling into policy traps? *Regional Studies, Regional Science*, 5(1), 190-203.
23. Stedman, R. C., Connelly, N. A., Heberlein, T. A., Decker, D. J., & Allred, S. B. (2019). The end of the (research) world as we know it? Understanding and coping with declining response rates to mail surveys. *Society & Natural Resources*, 32(10), 1139-1154.
24. Sun, Y., Shahzad, M., & Razzaq, A. (2022). Sustainable organizational performance through blockchain technology adoption and knowledge management in China. *Journal of Innovation & Knowledge*, 7(4), 100247.
25. Wamwara, W., Spillan, J. E., & Onchoke, C. M. (2023). *Doing Business in Kenya: Opportunities and Challenges*.
26. Wang, H., & Meng, X. (2019). Transformation from IT-based knowledge management into BIM-supported knowledge management: A literature review. *Expert Systems with Applications*, 121, 170-187.



27. Werner, J. M. (2021). Human resource development: talent development. Cengage Learning.
28. Wobodo, C. C., & Oparanma, A. O. (2019). Crisis management and corporate resilience of multinational oil and gas companies in Rivers State: A theoretical perspective. *American Journal of Humanities and Social Sciences Research*, 3(5), 7-14.
29. Yuan, S., & Pan, X. (2023). Inherent mechanism of digital technology application empowered corporate green innovation: Based on resource allocation perspective. *Journal of Environmental Management*, 345, 118841.
30. Zahra, S. A., Neubaum, D. O., & Hayton, J. (2020). What do we know about knowledge integration: Fusing micro-and macro-organizational perspectives. *Academy of Management Annals*, 14(1), 160-194.