



# Knowledge Management and Organisational Performance in selected Foam Manufacturing Firms in Lagos State, Nigeria

Idris Adegboyega Onikoyi<sup>1\*</sup>, Omoshalewa Maryam Fetuga<sup>2</sup>, Callistus Destiny Odeh<sup>3</sup> and Opeyemi Samuel Onaolapo<sup>4</sup>


<sup>1</sup> Osun State University, Oke Bale Road , Osogbo, Osun State, Nigeria

 <https://orcid.org/0009-0000-8469-8757>  
e-mail: idris.onikoyi@uniosun.edu.ng


<sup>2</sup> Redeemer's University, Ede, Osun State, Nigeria

 <https://orcid.org/0009-0007-2565-4069>  
e-mail: mailshalewa@yahoo.com

<sup>3</sup> Osun State University, Oke Bale Road , Osogbo, Osun State, Nigeria

 <https://orcid.org/0009-0004-5441-9023>  
e-mail: Callistus.odehi@uniosun.edu.ng

<sup>4</sup> Osun State University, Oke Bale Road , Osogbo, Osun State, Nigeria

 <https://orcid.org/0009-0006-2828-5126>  
e-mail: opeyemionaolapo1789@gmail.com

## Original research paper

### Citation:

Onikoyi, I.A., Fetuga, O.M., Odeh, C.D., & Onaolapo, O.S. (2024). Knowledge Management and Organisational Performance in selected Foam Manufacturing Firms in Lagos State, Nigeria. *Economic Insights – Trends and Challenges*, 13(2), 73-88.  
<https://doi.org/10.51865/EITC.2024.02.06>



Copyright: © 2024 by the authors

**JEL Classification:**  
M10; M13; M19.

**Abstract:** *The study examined the impact of knowledge management and organisation performance in selected foam manufacturing firms in Lagos state, Nigeria. The study made use of survey research design to obtain information from the staff of Vita-foam Nigeria Plc. and Mouka Limited. The population of the study was the 792 staff of Vitafoam Nigeria Plc. Ikeja, and Mouka Limited, Ikeja, Lagos State, Nigeria. The study made use of simple random sampling technique. Result of the first hypothesis showed the R<sup>2</sup> value of 0.608 which means that knowledge management technology variables have positive influence on workforce effectiveness. Also, findings of the second hypothesis showed an R<sup>2</sup> value of 0.660 which means that knowledge management strategy variables have positive influence on workforce effectiveness. In addition, findings of hypothesis three showed that R<sup>2</sup> value = (0.791) which means that knowledge management training variables have positive influence on workforce effectiveness. Finally, hypothesis four resulted in an R<sup>2</sup> value of 0.734, indicating a favorable impact of knowledge application factors on workforce efficiency. The research ultimately establishes that variables such as knowledge application, training in knowledge management, the strategic approach to knowledge management, and the utilisation of knowledge management technology all exhibit statistically significant relationships with workforce effectiveness. The research suggests that it would be beneficial for business organisations to adopt different knowledge management approaches. These approaches are valuable as they provide guidance on effectively overseeing and consolidating a company's information, data, and expertise, leading to enhanced productivity and efficiency.*

**Keywords:** *Knowledge Management; Knowledge Management Training; Knowledge Management Strategy; Knowledge Management Technology; Organisational Performance.*

---

\* Corresponding author

## Introduction

In this highly competitive and constantly changing world where information technology (IT) has an impact on the corporate environment, it is necessary to gain a competitive advantage. For effective knowledge management, formalising and utilising intellectual assets is regarded to be very important (Piwowar, 2021). Incorporating human elements and fostering the right organisational culture are essential for the success and effectiveness of knowledge management, as highlighted by Ayatollahi and Zeraatkar in 2020. Organisations have a well-known propensity to view knowledge management as a valued idea and a critical resource where their competitive advantage, which they all strive to obtain, lies. (Fattahiyan et al, 2012). High degrees of complexity in today's businesses indicate a bigger accumulation of knowledge, which unquestionably increases the difficulty of managing and controlling it in terms of storage, organisation, and retrieval, among other things. The majority of scholars concur that there is a clear trend in the workplace toward demanding workers to participate in higher-level cognitive processes and to consider information before taking action (Jacobs, 2017). Therefore, knowledge exchange and re-use are both short- and long-term processes that depend greatly on effective knowledge management (Nguyen, 2019). Knowledge is becoming increasingly significant and practical for firms as it is acknowledged as a source for them to develop and compete. Knowledge is significant because it enhances the value of an organisation's assets and has the potential to boost productivity and efficiency.

The development of knowledge management can help managers improve their routine tasks, decision-making processes, come up with fresh responses, and improve a range of competitive responses (Monavvarian, et al, 2013). Because knowledge is regarded as the most crucial resource for businesses, societies, and people as a whole, it promotes the development of knowledge-based skills and experiences, speeds up the development of unique innovative and creative activities that add value and meet customer demands, and also takes a company to the next level of excellence. Knowledge serves as a source of energy that propels development and provides a competitive edge now and in the future. When knowledge is efficiently employed and capitalised upon, it has the potential to drive organisations towards greater innovation, competitiveness, and long-term viability. Knowledge management, as defined by Bhatti et al. (2011), encompasses the methods and protocols implemented within a company aimed at optimising its intellectual potential by enhancing the effective and efficient management of its knowledge assets. The complete process of knowledge generation and discovery, as well as its dissemination and application, are all covered by knowledge management. Inherently, all firms store, access, and distribute knowledge in certain ways. To have a significant competitive advantage, knowledge is necessary. Both public and commercial firms perform better when information is managed effectively, according to Awan & Jabbar (2015) and Ahmed & Mohamed (2017). Additionally, they noted how maintaining staff members and giving them the necessary training helps them develop their confidence in addition to their talents. The main objective of knowledge management practices in organisations is to guarantee performance through the preservation of crucial knowledge at all levels, application of current knowledge in all pertinent situations, combining knowledge in a synergistic way, ongoing acquisition of relevant knowledge, and finally the creation of new knowledge that results from internal experiences and external environments (Monavvarian et al, 2013).

Knowledge sharing between the various divisions and units of the organisation in a way that makes it function as a single team is another performance in the same manner as specialized management, which is knowledge management that supports obtaining and enhancing organisational performance operates. Organisations today have the chance to set themselves apart from rivals thanks to knowledge and its management. According to Razzaq et al. (2019) and Najmi & Kadir (2018), the proper implementation of knowledge management can improve organisational performance. Likewise, Joshi et al. (2013) along with Kianto et al. (2013),

discovered that enhancements in human resource management, the ability to learn through observable means, and the effective stewardship of intellectual capital all positively impact organisational performance. Because of the swift changes in the business environment, an organisation can only remain sustainable if the knowledge management trademark is applied. This fact has caused the basis of industrialized economies to change from natural resources to intangible assets. Executives are being forced to look at the knowledge that supports their company and how it is used. Unaware of this are many organisations. Organisations that do not get involved in influencing how people store and share their knowledge and understanding, as well as those that do not offer learning and continuous growth possibilities for improving knowledge training to their staff to boost their capabilities and potential, are the ones most frequently seen ignoring knowledge management. Usually, some businesses in the private sector discredit efforts to train and develop their employees. Additionally, they are unable to recognize the knowledge management driving forces that affect how knowledge is used in these organisations through the application of technology in knowledge management. When it comes to encouraging people to share their knowledge and boost productivity, competitiveness, and effectiveness, those organisations fall short. However, this has a negative effect on these organisations, and they end up doing poorly. Despite the growing body of research that has examined this issue, there is still a lack of understanding regarding the relationship between knowledge management and organisational success, such as those by McIver and Lepisto (2017) and Rezaee and Jafari (2015). Insufficient research has also been done to examine the connection between knowledge management and non-financial success (Cho & Korte, 2014).

The broad objective of this study was to examine the impact of knowledge management on organisational performance in *selected foam manufacturing firms in Lagos state*. However, the specific objectives of the study were to;

- examine the influence of knowledge management technology on workforce.
- investigate the *effect of knowledge management strategy on workforce*.
- evaluate the influence of knowledge management training on workforce effectiveness.
- *assess the effect of knowledge application on workforce effectiveness*.

In line with the objectives of this study, the following null hypotheses were tested in this study:

H<sub>01</sub>: Knowledge management technology has no significant influence on workforce effectiveness.

H<sub>02</sub>: There is no significant effect of knowledge management strategy on workforce effectiveness.

H<sub>03</sub>: Knowledge management training has no significant influence on workforce effectiveness.

H<sub>04</sub>: There is no significant effect of knowledge application on workforce effectiveness.

## **Literature Review**

### **Conceptual Review**

#### **Knowledge management**

Organisations that utilize knowledge effectively use it as a competitive advantage. Knowledge is an intangible and unique asset (Shahzad et al, 2019). A process called knowledge management makes sure that individuals within an organisation get the appropriate information at the appropriate time and in the appropriate format (Bolisani & Bratianu, 2018). Grimm and Stephen (2014) defined knowledge as the familiarity or awareness of someone or something that contributes to one's understanding, such as facts (descriptive knowledge), abilities (procedural knowledge), or objects (acquaintance knowledge).

The entire body of cognition and ability that people utilize to solve issues is referred to as knowledge. It contains ideas, methods, common laws, and directives for action. We all have knowledge, which includes insight, comprehension, and practical know-how. It is the essential resource that enables our ability to think clearly (Odiri, 2014). Data and information form the foundation of knowledge, which is always founded on people. It is made by people and reflects their theories about a causal relationship (Aygul & Bahtisen, 2017). Many people credit to Plato the definition of knowledge as "justified true belief" because of his claim in the "Theaetetus" that there is a difference between knowledge and true belief (Steup et al, 2020). Considering that knowledge is both complicated and multifaceted, Ou-Yang (2014) defined knowledge as a process involving human action. For the organisation's operation and growth, both internal and external sources of knowledge are crucial. The organisation's knowledge base is created by internal knowledge sources, which also influence the organisation's capacity for receiving and assimilating knowledge from the outside world. In turn, the process of looking for fresh perspectives and the information necessary for the creation of innovation heavily relies on outside sources of knowledge (Doloreux, 2015).

Sharing information with external partners and being aware of the goods, services, tactics, and best practices of competitors can help organisations stay competitive (Attia & Salama, 2018). It includes all facets of knowledge generation as well as its collection, storage, sharing, and reuse in new and related settings. Knowledge management is the broad range of practices and actions used to manage the knowledge stocks and flows inside an organisation (Li, et al, 2012). Knowledge management involves the methods of creating, utilizing, exchanging, and managing the information and knowledge within an organisation (Girard et al, 2015). Knowledge management is frequently cited in the literature as an effective way to tap into the collective knowledge and abilities of people and organisations in order to boost performance and encourage productivity (Brahma & Mishra, 2015).

*Knowledge Management Technology:* According to Brahma and Mishra (2015), Since it improves and supplements human efficacy, technology is essential to the application of knowledge management in businesses. In particular, Brahma and Mishra (2015) claim that technology improves people's knowledge work by enhancing the organisation's labor, economic, and job-related components. According to Brahma and Mishra (2015), the ultimate goal of all information and communication technologies is to make the organisation's knowledge asset simple to access and locate so that those who need it may effectively use it.

*Knowledge Management Strategy:* A knowledge management strategy is a high-level plan that includes the organisational elements, tools, and technology infrastructure required to manage the organisation's knowledge gaps or redundancies (Nouri et al, 2013). When internal communication between departments is mostly conducted via social media, internal social networks, or direct human connections, the organisation will implement a personalisation strategy (Ammirato et al, 2019). An organisation can manage information, data, and knowledge for the benefit of the company and its stakeholders by using a knowledge management (KM) strategy, which is a comprehensive plan. As Venkitachalam and Willmott (2017) suggest, a knowledge management strategy involves the active management of knowledge through a proactive approach (referred to as a "push strategy"). In this context, individuals make an effort to explicitly store their information in a shared knowledge repository, similar to a database, and also seek to access the knowledge contributed by others (termed as codification). Individuals may also opt to seek the advice of professionals affiliated with a specific field as an alternative approach (known as a "pull strategy"). In such cases, a specialist or experts provide their insights to the inquirer, a process referred to as personalisation. In the context of strategic knowledge management, the distinction between codification and personalisation hinges on their specific applications.

Furthermore, Bray and David (2007) outlined additional knowledge management strategies and tools for businesses, such as expert systems, the transfer of best practices, knowledge fairs, competency-based management (which involves the systematic assessment and planning of knowledge-related competencies among individual organisation members), expert directories (facilitating connections between knowledge seekers and experts), and competency-based management.

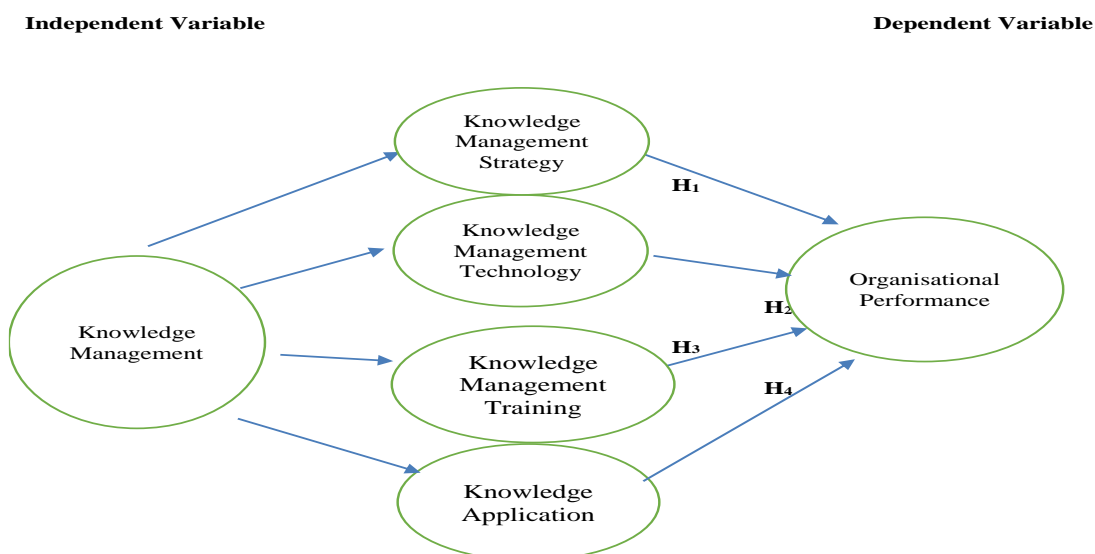
### **Knowledge Management Training**

According to Nassazzi (2013), training consists of methodical, planned acts intended to increase one's level of skill, knowledge, and competency. Closing performance gaps between current and targeted levels is the purpose of training in human resource management (Elnaga & Imran, 2013). Elnaga and Imran (2013) state that as training improves people, groups, and organisations' effectiveness, it is intended to advance the skills necessary to achieve organisational goals (Jehanzeb & Bashir, 2013). Because people are able to cut back on waste, knowledge management training lowers production costs. It also generates a sense of security, which reduces attrition and absenteeism.

### **Organisational Performance**

#### **Workforce Effectiveness**

Success is measured by effectiveness, productivity, efficiency, quality, and attendance at work, according to Arinanye (2015). Workforce effectiveness is the total measurement of production, unit cost, productivity, performance, and any other statistic used to determine an employee's effectiveness. It is a set of wise business choices that aids in organisation focus and workforce improvement. Companies put these techniques into practice by keeping an eye on employee behaviour before selecting what tasks and responsibilities to give each employee. High employee productivity is ensured by workforce effectiveness, which increases the likelihood that an organisation will succeed in reaching its objectives. High employee productivity is ensured by workforce effectiveness, which increases the likelihood that an organisation will succeed in reaching its objectives. Employee effectiveness is related to their capacity to meet objectives, which need to be directly inversely correlated with those of an organisation. An organisation's goals are to boost productivity, create a pleasant work environment, and boost sales and profits. Figure 1 buttress the above conceptual review.



**Fig. 1.** Conceptual Framework

Source: Authors' Conceptualizations (2023).

## **Empirical Review**

The relationship between knowledge management strategies and growth outcomes in the construction industry was explored by Abubakar et al. (2016) in their study. Company turnover and employee growth are used to gauge growth performance. The findings demonstrate a considerable association between knowledge production, storage, transmission, and application and growth performance. The impact of knowledge transfer on growth performance is greatest among the four processes.

According to Shahzad et al. (2019), organisational performance, as measured by metrics like success, market share, growth, profitability, and innovativeness, is influenced by the knowledge production process. Their study aimed to determine if organisational creativity is a result of the combination of knowledge strategy and knowledge management practices. Similarly, Tseng (2016) explored the impact of information management capabilities and gaps in customer knowledge on organisational performance.

The term "knowledge management competence" refers to an organisation's ability to both utilize existing knowledge and generate new knowledge. This competence encompasses various aspects, including knowledge management processes and elements of the knowledge infrastructure. Research findings indicate that proficiency in knowledge management positively affects business performance. Several studies, including those by Obeidat et al. (2016), Valdez et al. (2016), Rahim et al. (2017), and Nawaz et al. (2014), have examined the relationship between knowledge management and organisational performance.

In a study by Tan and Wong (2015), the impact of knowledge management on manufacturing production and operational performance, which includes dimensions like quality, time, cost, flexibility, and customer satisfaction, was investigated. The results demonstrated significant and immediate effects of knowledge management processes and variables on manufacturing performance.

Kim (2014) conducted assessments to determine the effects of knowledge management on organisational success, using project performance data and the Knowledge Implementation Index to measure achievement in terms of cost, quality, safety, and schedule. The results affirmed the positive influence of knowledge management on organisational success, indicating generally favourable relationships.

The organisational structure, information acquisition, knowledge application, and knowledge protection are all important, according to studies by Fattahiyani et al. (2013), all have an effect on an organisation's effectiveness. Knowledge management activities are favourably associated to strategy, according to Bourini et al. (2013). The exploratory research design used for this work, however, precludes the development and testing of research hypotheses. In their investigations, Kharabsheh et al. (2012) assessed how all knowledge management techniques affected organisational performance characteristics. They also found that pharmaceutical businesses adopted knowledge management strategies to a high degree but not to a sufficient level. In addition to studying the direct effects of technology and knowledge transformation on organisational performance, Emadzade et al. (2012) also looked at the indirect effects of knowledge application on performance. Other elements like organisational culture, knowledge acquisition, and knowledge protection had no impact on how well an organisation performed. Knowledge acquisition and performance indicators have a strong correlation, according to studies and research (Emadzade et al., 2012).

According to research by Kotecki (2011), and Emadzade et al. (2012), the axes of knowledge acquisition are external sourcing, strategic partnerships, mutual agreements, and scientific conferences. In their study, Kharabsheh et al. (2012) examined the impacts of knowledge management techniques on organisations. The study made the case that knowledge management

practices, including communication, the capacity for knowledge creation, acquisition, knowledge management policies and strategies, and training, are anticipated to have a favourable impact on all facets of organisational performance, including financial performance, the success of new products, customer satisfaction, and market share. According to Janepuengporn and Ussahawanitchakit's (2018) research, the knowledge management strategy greatly impacted the last factors in Thailand's apparel manufacturing, which has a favorable impact on organisational performance. The performance of knowledge management has been proven to be positively impacted by technology, according to Chen. (2011). Therefore, it makes sense to think that performance may be influenced by a good information technology infrastructure for knowledge management.

## **Methodology**

### **Research Design**

This research employed a survey research design, which involves the integration of both quantitative and qualitative data to obtain precise and timely information. The survey design actively involves the individuals' central to the research objectives. In this particular study, which sought to gauge respondents' perspectives regarding the influence of knowledge management on the performance of chosen foam manufacturing firms in Lagos state, Vitafoam Nigeria Plc, Ikeja, and Mouka Limited, Ikeja, were selected as case studies. A carefully structured questionnaire was employed to gather data. Consequently, the use of a survey research design was deemed suitable for this investigation, as it aids in predicting behaviour.

### **Population of the study**

The population for the study comprised of the staff of Vitafoam Nigeria Plc., Ikeja and Mouka Limited, Ikeja, Lagos state. The choice of Lagos State was borne out of the fact that it represents the commercial hub of Nigeria as well as the head office of most Nigerian companies. The population of the study was the 459 staff of Vitafoam Nigeria Plc., Ikeja according to 2021 Vitafoam Nigeria Plc., Ikeja Annual reports and Accounts and 333 employees of Mouka Limited as stated on craft.co/mouka as at May, 2022 which gave a total of 792 employees.

### **Sample size and sampling technique**

Since the population of the study was the 792 staff of Vitafoam Nigeria Plc., Ikeja, and Mouka Limited, Ikeja, Lagos State. The use of Taro Yamane formula was employed to ascertain the sample size for the study.

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

Where:

n=sample size;

N=total population size;

1 is constant;

e = the assume error margin or tolerable error which is taken as 5% (0.05).

Where:

N= 792

e = (0.05)<sup>2</sup> = 0.0025

$$n = \frac{792}{1+792(0.05)^2} \Rightarrow n = \frac{792}{1.9825} \Rightarrow n = 399.49 \text{ Respondents}(n = 400 \text{ Respondents})$$

Therefore, the study made use of 400 copies of the questionnaire. The 400 copies of the questionnaire were distributed to the staff of the selected manufacturing firms in Ikeja, Lagos State. However, the study made use of 266 questionnaires which were adequately filled and

considered valid for the data analysis and the respondents were staff of Vitafoam Nigeria Plc., Ikeja and Mouka Limited, Ikeja, Lagos State. The study used a straightforward random sampling technique. The fundamental sampling method is simple random sampling, in which a sample of subjects is chosen for study from a larger group (a population). In simple random sampling, each person is chosen at random from the population, and each person has the same chance of being selected for the sample.

### Model Specification

This research investigated how knowledge management influences the performance of specific foam manufacturing companies located in Ikeja, Lagos State. To explore the connection between knowledge management and organisational performance, this study employed a framework inspired by Godfrey (2015). Godfrey's model assessed the impact of knowledge management on organisational performance by considering factors like knowledge conversion, knowledge transfer, knowledge application, the repository of human capital, and organisational culture in relation to performance.

However, in this particular study, we focused on a modified set of factors, which included knowledge management technology, knowledge management strategy, knowledge application, and knowledge training. These factors were assessed in relation to the variable of organisational performance, specifically workforce effectiveness.

Therefore, the model for this study were expressed in its function as:

$$WE = \beta_0 + \beta_1 KA + u \quad (2)$$

$$WE = f(KMT, KMS, KT, KA) \quad (3)$$

$$WE = \beta_0 + \beta_1 KMT + u \quad (4)$$

$$WE = \beta_0 + \beta_1 KMS + u \quad (5)$$

$$WE = \beta_0 + \beta_1 KT + u \quad (6)$$

$$WE = \beta_0 + \beta_1 KA + u \quad (7)$$

Where:

WE = Workforce Effectiveness;

KM = Knowledge Management;

KMT= Knowledge Management Technology;

KMS = Knowledge Management Strategy;

KT = Knowledge Training;

KA = Knowledge Application;

$f$  = Function;

$\beta_0$  = Constant;

$\beta_1$  = Regression Coefficient;

$u$  = Error Term.

## Results

### Test of Hypotheses

**Hypothesis One:** Knowledge management technology has no significant influence on workforce effectiveness in selected foam manufacturing firms in Lagos state.

Table 1 displays an  $R^2$  value of 0.608, indicating a positive impact of knowledge management technology variables on workforce effectiveness. Consequently, when all factors are combined in the models, they contribute to a 60.8% prediction of workforce effectiveness variance. This implies that 60% of the variability in workforce effectiveness in the selected foam manufacturing firms in Lagos state can be explained by the knowledge management technology within the study area.



**Table 1. Model Summary**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.779 <sup>a</sup>	.608	.606	1.84873
a. Predictors: (Constant), Knowledge management technology			
b. Dependent Variable: Workforce effectiveness			

Source: Researchers' computation using SPSS 22 (2023).

Table 2 shows that knowledge management technology variables significantly predicted the level of workforce effectiveness.  $F(1, 265) = 408.698, p < 0.05$  F – statistical indicates that the overall regression model is highly statistically significant in terms of its goodness of fit since the value of  $F_{tab} > F_{cal}$ . Therefore, null hypothesis is rejected. The study concludes that knowledge management technology has significant influence on workforce effectiveness in selected foam manufacturing firms in Lagos state.

**Table 2. ANOVA<sup>a</sup>**

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1396.845	1	1396.845	408.698	.000 <sup>b</sup>
Residual	902.297	264	3.418		
Total	2299.143	265			
a. Dependent Variable: Workforce effectiveness					
b. Predictors: (Constant), Knowledge management technology					

Source: Researchers' computation using SPSS 22 (2023).

Table 3 provides an overview of the indicators' contributions. Specifically, in the case of knowledge management technology, it is noteworthy that it contributes significantly with a Beta value of 0.779 ( $p < 0.05, sig = 0.000$ ) and a t-value of 28.945, demonstrating its statistically significant impact on workforce effectiveness. The findings affirm that knowledge management technology indeed exerts influence on workforce effectiveness. Consequently, the null hypothesis was dismissed, leading to the conclusion that knowledge management technology holds a significant influence on workforce effectiveness within the chosen foam manufacturing firms in Lagos state.

**Table 3. Coefficients<sup>a</sup>**

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	4.157	.527		7.882	.000
Knowledge management technology	.738	.037	.779	20.216	.000
a. Dependent Variable: Workforce effectiveness					

Source: Researchers' computation using SPSS 22 (2023).

**Hypothesis Two:** There is no significant effect of knowledge management strategy on workforce effectiveness in selected foam manufacturing firms in Lagos state.

Table 4 presents an  $R^2$  value of 0.660, indicating a favourable impact of knowledge management strategy variables on workforce effectiveness. This means that when all factors are considered together in the models, they contribute to a 66.0% prediction of workforce effectiveness variance. In other words, 66% of the variability in workforce effectiveness among the selected foam manufacturing firms in Lagos state can be accounted for by their knowledge management strategy.

**Table 4.** Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.812 <sup>a</sup>	.660	.658	1.72133
a. Predictors: (Constant), knowledge management strategy			
b. Dependent Variable: Workforce effectiveness			

Source: Researchers' computation using SPSS 22 (2023).

Table 5 shows that knowledge management technology variables significantly predicted the level of workforce effectiveness.  $F(1, 265) = 511.955$ ,  $p < 0.05$ .  $F$  – statistical indicates that the overall regression model is highly statistically significant in terms of its goodness of fit since the value of  $F_{tab} > F_{cal}$ . Therefore, null hypothesis is rejected. The study concludes that there is significant effect of knowledge management strategy on workforce effectiveness in selected foam manufacturing firms in Lagos state.

**Table 5.** ANOVA<sup>a</sup>

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1516.915	1	1516.915	511.955	.000 <sup>b</sup>
Residual	782.227	264	2.963		
Total	2299.143	265			
a. Dependent Variable: Workforce effectiveness					
b. Predictors: (Constant), knowledge management strategy					

Source: Researchers' computation using SPSS 22 (2023).

Table 6 illustrates the significance of various indicators. In the specific instance of knowledge management strategy, it notably contributes with a Beta value of 0.812 ( $p < 0.05$ , sig = 0.000) and a t-value of 22.626, indicating its statistically significant impact on workforce effectiveness. These findings affirm that knowledge management strategy indeed influences workforce effectiveness. Consequently, the null hypothesis was dismissed, leading to the conclusion that there is indeed a significant impact of knowledge management strategy on workforce effectiveness within the chosen foam manufacturing firms in Lagos state.

**Table 6.** Coefficients<sup>a</sup>

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	4.160	.472		8.811	.000
Knowledge management strategy	.745	.033	.812	22.626	.000
a. Dependent Variable: workforce effectiveness					

Source: Researchers' computation using SPSS 22 (2023).

**Hypothesis Three:** Knowledge management training has no significant influence on workforce effectiveness in selected foam manufacturing firms in Lagos state.

Table 7 gives  $R^2$  value = (0. 791). This shows that knowledge management training variables have positive influence on workforce effectiveness. Thus, the models predicting 79.1% workforce effectiveness of the variance in knowledge management training pooling all factors together enhance workforce effectiveness; meaning that 79% workforce effectiveness of the variance can be predicted from the knowledge management training of the study area.

**Table 7. Model Summary**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.889 <sup>a</sup>	.791	.790	1.34876
a. Predictors: (Constant), Knowledge management training			
b. Dependent Variable: Workforce effectiveness			

Source: Researchers' computation using SPSS 22 (2023).

Table 8 highlights that the variables related to knowledge management training played a significant role in predicting workforce effectiveness. With an F-value of 999.848 and  $\rho < 0.05$ , the statistical analysis demonstrates that the overall regression model is highly statistically significant in terms of its appropriateness for explaining the data. Given that the value of  $F_{tab}$  exceeds  $F_{cal}$ , the null hypothesis is rejected. Consequently, the study concludes that knowledge management training has a significant impact on workforce effectiveness within the chosen foam manufacturing firms in Lagos state.

**Table 8. ANOVA<sup>a</sup>**

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1818.884	1	1818.884	999.848	.000 <sup>b</sup>
Residual	480.258	264	1.819		
Total	2299.143	265			
a. Dependent Variable: Workforce effectiveness					
b. Predictors: (Constant), Knowledge management training					

Source: Researchers' computation using SPSS 22 (2023).

Table 9 provides insight into the significance of various indicators, particularly highlighting the role of knowledge management training. In this specific case, knowledge management training stands out with a Beta value of 0.889 ( $\rho < 0.05$ , sig = 0.000) and a t-value of 31.620, signifying its statistically significant impact on workforce effectiveness. These findings confirm that knowledge management training indeed exerts influence on workforce effectiveness. Consequently, the null hypothesis was dismissed, leading to the conclusion that there is indeed a significant influence of knowledge management training on workforce effectiveness within the selected foam manufacturing firms in Lagos state.

**Table 9. Coefficients<sup>a</sup>**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.256	.398		5.666	.000
Knowledge management training	.872	.028	.889	31.620	.000
a. Dependent Variable: workforce effectiveness					

Source: Researchers' computation using SPSS 22 (2023).

**Hypothesis Four:** There is no significant effect of knowledge application on workforce effectiveness in selected foam manufacturing firms in Lagos state.

Table 10 displayed an  $R^2$  value of 0.734, indicating a favourable impact of knowledge application variables on workforce effectiveness. This suggests that when all factors are considered together in the models, they contribute to a 73.4% prediction of workforce effectiveness variance. In simpler terms, it means that 73% of the variability in workforce effectiveness within the study area can be explained by the application of knowledge.

**Table 10.** Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.857 <sub>a</sub>	.734	.733	1.52098
a. Predictors: (Constant), Knowledge Application			
b. Dependent Variable: Workforce effectiveness			

Source: Researchers' computation using SPSS 22 (2023).

Table 11 indicates that the knowledge application variables played a substantial role in predicting workforce effectiveness. With an F-value of 729.847 and  $\rho < 0.05$ , the statistical analysis demonstrates that the overall regression model is highly statistically significant in terms of its suitability for explaining the data. Since the  $F_{tab}$  value exceeds  $F_{cal}$ , the null hypothesis is rejected. As a result, the study concludes that knowledge application indeed has a significant impact on workforce effectiveness within the chosen foam manufacturing firms in Lagos state.

**Table 11.** ANOVA<sup>a</sup>

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1688.411	1	1688.411	729.847	.000 <sup>b</sup>
Residual	610.732	264	2.313		
Total	2299.143	265			
a. Dependent Variable: Workforce effectiveness.					
b. Predictors: (Constant), Knowledge application					

Source: Researchers' computation using SPSS 22 (2023).

Table 12 provides insight into the significance of various indicators, with a particular focus on the role of knowledge application. In this specific instance, knowledge application stands out with a Beta value of 0.857 ( $\rho < 0.05$ , sig = 0.000) and a t-value of 31.620, indicating its statistically significant impact on workforce effectiveness. These findings confirm that knowledge application indeed influences workforce effectiveness. Consequently, the null hypothesis was dismissed, leading to the conclusion that there is indeed a significant impact of knowledge application on workforce effectiveness within the selected foam manufacturing firms in Lagos state.

**Table 12.** Coefficients<sup>a</sup>

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.897	.442		6.552	.000
Knowledge application	.827	.031	.857	27.016	.000
a. Dependent Variable: workforce effectiveness					

Source: Researchers' computation using SPSS 22 (2023).

## Conclusions

The results of this study reaffirm that knowledge management technology has a positive impact on workforce effectiveness. This conclusion is drawn from the observed positive relationship between knowledge management technology and workforce effectiveness, with the strength of this relationship being statistically significant.

Meanwhile, knowledge management strategy has positive influence on workforce effectiveness in selected foam manufacturing firms in Lagos state as knowledge management strategy

contributes with Beta value = .812  $\rho < .05$  (sig = .000) and t-value = 22.626. The contribution is statistically significant to the level of workforce effectiveness.

In addition, knowledge management training contributes with Beta value = .889  $\rho < .05$  (sig = .000) and t-value = 31.620, which shows that knowledge management training is statistically significant to the level of workforce effectiveness in selected foam manufacturing firms in Lagos state. However, knowledge application is statistically significant to the level of workforce effectiveness. From the findings knowledge application does have effect on workforce effectiveness in selected foam manufacturing firms in Lagos state.

## **Recommendations**

On the basis of the study's findings, the following suggestions were made. In light of these findings, it is suggested that foam manufacturing firms such as Vitafoam Nigeri Plc, Ikeja and Mouka Limited, Ikeja and other business firms should improve better on the use of knowledge management technology software such as Google Analytic as it is a very important factor that improves organisational performance.

Business firms are encouraged to make use of the various knowledge management strategies because it demonstrates how to organise and concentrate corporate knowledge, data, and information to boost output and efficiency.

Managements of Vitafoam Nigeria Plc, Ikeja and Mouka Limited, Ikeja should endeavour that the knowledge management trainings are well orchestrated, since knowledge management training has significant influence on workforce effectiveness. Also, managements of Vitafoam Nigeria Plc, Ikeja and Mouka Limited, Ikeja should endeavour to conduct knowledge management trainings often so as to improve the overall performance of the staff.

Furthermore, knowledge management application should be encouraged because the available knowledge is used to make vital decisions and perform tasks through direction and routines. Also, Knowledge management application is of key importance in the successful development of new products.

## **References**

1. Abu-Bakar, A. H., Yusof, M. N., Tufail, M. A., & Virgiyanti, W. (2016). Effect of knowledge management on growth performance in construction industry. *Management Decision*, 54(3), 735–749.
2. Ahmed, H.M.Z., & Mohamed, M.S. (2017). The effect of knowledge management critical success factors on knowledge management effectiveness and performance: An empirical research in Egyptian banking sector. *The Business and Management Review Journal*, 9(2), 201–211.
3. Al-Ti, A. (2016). The mediating role of knowledge management and the moderating part of organisational culture between human resource practices and organisational performance. *International Business Research*, 9(1), 43-54.
4. Alrowwad, A., Obeidat, B., Tarhini, A., & Aqqad, N. (2017). The impact of transformational leadership on organisational performance via the mediating role of corporate social responsibility: A structural equation modeling approach. *International Business Research*, 10 (1), 199-221.
5. Ammirato, S., Felicetti, A.M., Gala, M.D., Aramo-Immonen, H., Jussila, J., & Kärkkäinen, H. (2019). The use of social media for knowledge acquisition and dissemination in B2B companies: An empirical study of Finnish technology industries. *Knowledge Management Research and Practice*, 17(2), 52–69.
6. Arinanye, R. T. (2015). *Organisational factors affecting employees' performance at the College of Computing and Information Sciences (COCIS)*. Makerere University, Kampala, Uganda. Uganda Technology and Management University, Kampala, Uganda.
7. Attia A., & Salama, I. (2018). Knowledge management capability and supply chain management practices in the Saudi food industry. *Business Process Management Journal*, 24(2), 459-477.

8. Aygul, K., & Bahtisen, K. (2017). The determination of knowledge, application and health beliefs of third and fourth grade nursing students regarding breast self-exam. *Journal of Breast Health*, 5(13), 10 – 15
9. Awan, A.G., & Jabbar, A. (2015). The determinants of capital inflow in developing countries with reference to Pakistan. *Developing Countries Studies*, 4(12), 20 – 34.
10. Ayatollahi, H., & Zeraatkar, K. (2020). Factors influencing the success of knowledge management process in health care organisations. *Health Information & Libraries Journal* 37(3), 17-25.
11. Bahatti, W, Zaheer, A., & Rehman, K. (2011). The effect of knowledge management practices on organisational performance: A conceptual study. *African Journal of Business Management*, 5(7), 2847- 2853, 2011.
12. Bolisani, E., & Bratianu, C., (2018). The elusive definition of knowledge. Emergent knowledge strategies: Strategic thinking in knowledge management. *Springer International Publishing*, Cham, 1–22.
13. Bourini F., Ghaith M., & Azzam A, (2013). Organisational culture and total quality management (TQM). *International Journal of Business and Management* 8(24), 32-34.
14. Brahma, S. & Mishra, S, (2015). Understanding researchable issues in knowledge management: A literature review. *The IUP Journal of Knowledge Management*, 13(4), 43-68.
15. Bray, D.A. (2007). Knowledge Ecosystems. A Theoretical Lens For Organisations Confronting Hyperturbulent Environments. In T. McMaster, D. Wastell, E. Ferneley, and J. DeGross, eds., *Organizational Dynamics of Technology-Based Innovation: Diversifying the Research Agenda*, Springer, June 2007, Available at SSRN: <https://ssrn.com/abstract=984600>
16. Cania, L. (2014). The impact of strategic human resource management on organisational performance. *Economia: Seria Management*, 17(2), 373-383
17. Cascio, W. F, (2014). Leveraging employer branding, performance management and human resource development to enhance employee retention. *Human Resources Development*, 17(2), 54-58.
18. Chen, E. (2011): Knowledge management and innovativeness: The role of organisational climate and structure. *International Journal of Manpower*, 31, 848-870
19. Cheng, H., Niu, M.-S., & Niu, K.-H. (2014). Industrial cluster involvement, organisational learning, and organisational adaptation: An exploratory study in high technology industrial districts. *Journal of Knowledge Management*, 18, 971-990.
20. Cho, T., & Korte, R. (2014). Managing knowledge performance: Testing the components of a knowledge management system on organisational performance. *Asia Pacific Education Review*, 1-15.
21. Doloreux, D. (2015). Use of internal and external sources of knowledge and innovation in the Canadian wine industry. *Canadian Journal of Administrative Sciences*, 32 (2), 102–112.
22. Elnaga, A., & Imran, A. (2013). The effect of training on employee performance. *European Journal of Business and Management*. 5(4), 137-147.
23. Emadzade, M., Mashayekhi, B., & Abdar, E. (2012). Knowledge management capabilities and organisational performance. *International Journal of Contemporary Research in Business*, 3(11), 781-790.
24. Fattahiyan, S, Hoveida, R, Siadat, S, & Tallebi, H. (2012). Study of relationship between knowledge management enablers and processes with organisational performance, *Interdisciplinary Journal of Contemporary Research in Business*, 4 (4), 36-44.
25. Fattahiyan, S, Hoveida, R, Siadat, S, & Tallebi, H. (2013). Study of relationship between knowledge management enablers and processes with organisational performance, *Interdisciplinary Journal of Contemporary Research in Business*, 4 (4), 36-44, 2012.
26. Girard J, John P & JoAnn L. (2015). Defining knowledge management: Toward an applied compendium. *Online Journal of Applied Knowledge Management*, 3(1), 14-22.
27. Godfrey M, (2015). *Nur1 dephosphorylation confers positive feedback to mitotic exit phosphatase activation in budding yeast*. PLoS Genet 11(1):e1004907
28. Grimm, S. R. (2014). Understanding as knowledge of causes. In *Virtue epistemology naturalised: Bridges between virtue epistemology and philosophy of science*, Synthese library, Cham: Springer International Publishing, 366, 329–345.
29. Jacobs, R. L. (2017). Knowledge work and human resource development. *Human Resource Development Review*, 16(2), 176-202.
30. Janepuengporn K, & Ussahawanitchakit, P. (2018). The impacts of knowledge management strategy on organisational performance: An empirical study of clothing manufacturing businesses in Thailand. *International Journal of Advanced Computer Science and Applications*, 4 (9), 208

31. Jehanzeb, K., & Bashir, N. A. (2013). Training and development programme and its benefits to employees and organization. A conceptual study, *European Journal of Business and Management*, 5(2), 243-252.
32. Joshi, M., Cahill, D., Sidhu, J., & Kansal, M. (2013). Intellectual capital and financial performance: An evaluation of the Australian financial sector. *Journal of Intellectual Capital*, 14(2), 264–285.
33. Kianto, A., Andreeva, T., & Pavlov, Y. (2013). The impact of intellectual capital management on company competitiveness and financial performance. *Knowledge Management Research and Practice*, 11(2), 112–122.
34. Kharabsheh, R., Magableh, I., & Sawadha, S. (2012). Knowledge management practices and its impact on organisational performance in pharmaceutical firms. *European Journal of Economics, Finance and Administrative Sciences*, 48, 6-15.
35. Kim, S. B. (2014). Impacts of knowledge management on the organisational success. *Journal of Civil Engineering*, 18(6), 1609–1617.
36. Kotecki, P. (2011). *Building organisational capability: A study of knowledge management practices reasons, and results*. PhD. Dissertation, Capella University.
37. Li, Y., Tarafdar, M. & Rao, S. (2012). "Collaborative knowledge management practices". *International Journal of Operations and Production Management*, 32(4), 398-422.
38. McIver, D., & Lepisto, D. A. (2017). Effects of knowledge management on unit performance: Examining the moderating role of tastiness and learnability. *Journal of Knowledge Management*, 21(4), 796-816.
39. Monavvarian, A., Asgari, N., Akhavan, P. & Ashena, M. (2013). Developing social capital for facilitating knowledge management practices. *International Journal of Social Economics*, 40(9), 826-844.
40. Najmi, K., Kadir, A., & Kadir, M. (2018). Mediation effect of dynamic capability in the relationship between Knowledge management and Strategic leadership on organisational performance accountability. *International Journal of Law and Management*, 60(2), 517–529.
41. Nasazzi, N. (2013). *Effects of training on employee performance. Evidence from Uganda*. University of Applied Sciences.
42. Nawaz, M. S., Hassan, M. & Shaukat, S. (2014). Impact of knowledge management practices on firm performance: Testing the mediation role of innovation in the manufacturing sector of Pakistan. *Pakistan Journal of Commerce and Social Sciences*, 8 (1), 99-111
43. Nguyen K. (2019). Factors influencing the success of knowledge management process in health care organisations: *Health Information & Libraries Journal* 37(3). 22-28.
44. Nouri, R., Moshabaki, A., Raissi, S., & Javadinia, Y. (2013). The influence of the personalisation and codification strategies on successful knowledge management case study: National Iranian Oil Company. *Research Journal of Applied Science, Engineering and Technology*, 6(6), 989–996.
45. Obeidat, B, Al-Suradi, M, Masa'deh, A., & Tarhini, A. (2016). The Impact of Knowledge Management on Innovation: An Empirical Study on Jordanian Consultancy Firms. *Management Research Review*, 39, 1214-1238. <http://dx.doi.org/10.1108/mrr-09-2015-0214>.
46. Obeidat, B. (2016). Exploring the relationship between corporate social responsibility, employee engagement, and organizational performance: The case of Jordanian mobile telecommunication companies. *International Journal of Communications, Network and System Sciences*, 9, 361-386.
47. Obeidat, B. Y. (2016). The effect of strategic orientation on organisational performance: the mediating role of innovation. *International Journal of Communications, Network and System Sciences*, 9(11), 478.
48. Odiri, V. I. O. (2014). *Knowledge management and organisational performance in selected oil companies in Nigeria*. Ph.D. Thesis in the department of business administration, Delta State University, Abraka. 4(7), 12-19.
49. Ou-Yang, L. (2014). Cyclic Model for knowledge management capability. A review study *Arab Journal of Business Management Performance*, 4(4), 1-9.
50. Pandey, S. C., & Dutta, A. (2013). Role of knowledge infrastructure capabilities in knowledge management. *Journal of Knowledge Management*, 17(3), 435-453.
51. Piwowar, S. (2021). Human resources development as an element of sustainable human resource management - with the focus on production engineers. *Journal of Cleaner Production*, 8(12), 22-26.
52. Rahim, R. A., Mahmood, N. H. N., & Masrom, M. (2017). Innovation and knowledge management as the catalyst of small medium enterprise's performance: A Conceptual Paper, *Advanced Science Letters*, 23(4), 2727-2730

53. Razzaq, S., Shujahat, M., Hussain, S., Nawaz, F., Wang, M., Ali, M., & Tehseen, S. (2019). Knowledge management, organisational commitment and knowledge-worker performance: The neglected role of knowledge management in the public sector. *Business Process Management Journal*, 25(5), 923–947.
54. Rezaee, F., & Jafari, M. (2015). The effect of marketing knowledge management on sustainable competitive advantage: Evidence from the banking industry. *Accounting*, 1(2), 69-88.
55. Sahibzada U. F, Jianfeng C, Latif K. F, Shafait Z, & Sahibzada H. F (2020). Interpreting the impact of knowledge management processes on organisational performance in Chinese higher education: mediating role of knowledge worker productivity, *Studies in Higher Education*, 1–18.
56. Sangiorgi, D., & Siboni, B. (2017). The disclosure of intellectual capital in Italian universities: What has been done and what should be done. *Journal of Intellectual Capital*, 8(2), 354-372.
57. Shahzad, M., Ying, Q, Rehman, S., Zafar, A., Ding, X., & Abbas, J., (2019). Impact of knowledge absorptive capacity on corporate sustainability with mediating role of corporate social responsibility: Analysis from the asian context. *Journal of Environmental Planning and Management*, 1–27.
58. Steup, M, & Neta, R (2020). *Epistemology in Zalta*, The Stanford Encyclopedia of Philosophy (Fall 2020 ed.), Metaphysics research lab, Stanford University. 47-49.
59. Tan, L. P., & Wong, K. Y. (2015). Linkage between knowledge management and manufacturing performance: A structural equation modelling approach. *Journal of Knowledge Management*, 19(4), 814–835.
60. Tseng, S. M. (2016). The effect of knowledge management capability and customer knowledge gaps on corporate performance. *Journal of Enterprise Information Management*, 29(1), 51–71.
61. Valdez-Juárez, L. E., García-Pérez de Lema, D., & Maldonado-Guzmán, G. (2016). Management of knowledge, innovation and performance in SMEs. *Interdisciplinary Journal of Information, Knowledge, and Management*, 11, 141-176
62. Venkitachalam, S. & Willmott, V, (2017). Strategic knowledge management. Insights and pitfalls. *International Journal of Information Management*, 37(4), 313-316.
63. Zeglat, D., & Zigan, K. (2014). Intellectual capital and its impact on business performance: Evidences from the Jordanian hotel industry. *Tourism and Hospitality Research*, 13(2), 83-100. 39