



# Knowledge Management and Organisational Performance in the Nigerian National Petroleum Corporation Exploration and Production Limited

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## Abstract

This study examined the impact of knowledge management on organisational performance in Nigeria, with emphasis on the Nigerian National Petroleum Corporation Exploration and Production Limited (NNPC E & P Ltd) in Benin-City, Edo State. Specifically, the study investigated the effects of knowledge creation, knowledge accumulation and knowledge sharing on organisational performance. Data were collected using questionnaires. The total study population consisted of 1812 staff members, with a sample size of 328 staff from NNPC E & P Ltd in Benin City, which were selected using purposive and convenience sampling techniques. Data were analysed using descriptive and inferential statistics, particularly correlation and multiple regression analysis. The results showed that knowledge creation and accumulation have significant influence on organisational performance. However, knowledge sharing has positive but non-significant effect on organisational performance. Based on these outcomes, the study recommended that NNPC E & P Ltd should invest in initiatives that foster the development and systematic collection of valuable knowledge. This could include implementing robust research and development programmes to enhance employee training, and maintaining comprehensive knowledge repositories to improve performance outcomes.

**Keywords:** Knowledge accumulation, Knowledge creation, Knowledge sharing, Knowledge, Organisational performance

## 1. Introduction

Petroleum production and export play a dominant role in Nigeria's economy and account for about 90% of her gross earnings. This dominant role has pushed agriculture, the traditional mainstay of the economy, from the early fifties and sixties to the background (Odularu, 2008; Ogbuigwe, 2018). The Nigerian economy provides 95% of foreign exchange earnings, and about 65% of government budgetary revenues (Akinyetun, 2016). Foreign direct investment (FDI) is commonly defined as tangible investment engagements between the global economy and a specific domestic market. Whether these interactions encourage or discourage economic growth depends on the area of strength of the economy concerned and purpose of the

investment (Madugba, Ekwe, & Okezie, 2016). Hence, the emphasis on the optimal performance of the NNPC E & P Ltd, NNPC and consequently the Nigerian petroleum industry. The subject of performance remains a major concern for business organisations. Continuous performance is the objective of any organisation because only through performance, are organisations able to grow and improve (Gavrea, Ilies & Stegorean, 2011). A stable environment encourages greater innovation, which in turn results in the organisation gaining competitive advantage in the marketplace. Competitive advantage can lead to greater performance (Matayong & Mahmood, 2013).

However, studies have brought attention to some difficult knowledge management problems in the oil and gas sector in the context of developing economies or countries such as: non-technical issues like cultural and religious (Badpaet *et al.*, 2018), a workforce with inadequate industry knowledge, insufficient technology use and knowledge sharing (Omar *et al.*, 2016), insufficient problem-solving skills; ineffective strategic leadership and human resource management practices (Obasi, 2019), ineffectiveness in resolving customers' complaints (Desai and Rai 2016), and unwillingness, low involvement of employees, lack of formal training, lack of knowledge among leadership, lack of trust, tendency to work individually, and time and cost constraints (Matayong & Mahmood, 2013). These issues justify the need for empirical study in the oil and gas industry in developing countries like Nigeria. By understanding the factors that contribute to effective knowledge management, organisations can develop strategies to enhance their knowledge management (Omar *et al.*, 2016). Hence, the investigation of the relationship between knowledge management and organisational performance in the Nigerian oil and gas industry.

In respect of knowledge management and organisational performance in the oil and gas industry in Nigeria, not much work has been done. Among the research done, the only closely related study from Nigeria was Ovbagbedia (2016) which focused on a framework for knowledge management implementation in oil and gas projects in the cases of Nigeria and the United Kingdom. Omotayo (2015) also examined knowledge management as an important tool in organisational management in Nigeria. Badpaet *et al.*, (2018) examined the impact of knowledge management systems (KMS) usage on organisational performance in the oil and gas industry. Gadzama and Ayuba, (2016) examined information resource management in the ministry of petroleum resources, Abuja, Nigeria. These studies from Nigeria did not directly examine knowledge management and organisational performance in oil and gas industry using dimensions such as knowledge creation, accumulation, sharing, utilisation and internalisation.

To the best of the researchers' knowledge, no existing studies have looked at these three dimensions of knowledge management namely knowledge creation, accumulation, and sharing in relation to organisational performance in the oil and gas sector. This is the gap in knowledge that this study desires to fill. This study contributes to knowledge by providing evidence-based understanding of the relationship between knowledge creation, accumulation, and sharing, and organisational performance to offer valuable insights for academia and practitioners seeking to enhance knowledge, organisational effectiveness and competitiveness.

## **1.1 Objectives of the Study**

The broad objective of this study is to examine the effect of knowledge management on organisational performance in NNPC E & P Ltd. However, the specific objectives of the study are to:

- i. examine the effect of knowledge creation on organisational performance in NNPC E & P Ltd.
- ii. ascertain the influence of knowledge accumulation on organisational performance in NNPC E & P Ltd.
- iii. determine the effect of knowledge sharing on organisational performance in NNPC E & P Ltd.

## **2. Literature Review**

### **2.1 Organisational Performance**

Organisational performance is the result of activities; it includes the actual outcomes of the strategic management process (Olalekan, Samuel, & John, 2012). All actions connected to the goals of the organisation, contingent on each member's degree of involvement, are collectively referred to as organisational performance (Borman & Motowidlo, 1993). Nonetheless, organisational performance serves as a mirror for the organisation's capacity to achieve high productivity, as long as it is coupled with customer satisfaction, a healthy market share that can yield a suitable financial return, and the ability to fulfill social and ethical obligations to the organisation's workplace and society at large (Tubigi & Alshawi, 2015).

Firm performance has traditionally been assessed using accounting-based metrics. However, a critical consideration is the difficulty in accessing actual accounting data from organisations, particularly due to confidentiality constraints. This challenge is more pronounced for privately held firms, as publicly listed companies are generally required to disclose financial information. As a result, previous research studies looking into performance related issues, used self-reported financial and non-financial performance measures (Alrubaiee, 2012). However, Tseng and Lee, (2014) pointed out that some scholars have continually discussed the organisational performance measurement index. For example, Tippins and Sohi (2003) suggested profitability, rate of return on investment, customer retention, and sales growth rate as the organisational performance measurement indexes.

Richard, Devinney, Yip and Johnson (2009) noted that organisational performance includes three main aspects: financial performance (profits, return on assets, return on investment, etc.), product market performance (sales, market share, etc.), and shareholder return (total shareholder return, economic value added, etc.). Enhancing organisational performance is the focus of every manager in every enterprise. To succeed at enhancing organisational performance, it is crucial for an organisation to establish a comprehensive measurement index that provides managers and staff with clear directions and goals set by the enterprise (Tseng & Lee, 2014). Organisational performance is an indicator which measures how well an organisation accomplishes its objectives (Ho, 2008). For all organisations, the quest of the management of the organisation depends on the ability to measure performance and then evaluate and report upon that performance (Crowther & Aras, 2008). How well an organisation deploys its resources, human and material, determines how well-set goals are accomplished (Richard *et al.*, 2009). These measures are set according to the company itself and there is no standard set of financial measures (Al Sawalqa, Holloway, & Alam, 2011). It is important to state that employees contribute immensely to the good fortune of organisations because these contributions have led to significant successes that organisations have recorded over the years (Obioma & Ogelle, 2016).

## **2.2 Knowledge Management and its Dimensions**

Knowledge management is an ongoing and dynamic process that involves the capability to innovate novel ideas, insights and solutions and incorporate them within the organization (Jayasingam, Ramahi, Jantan& Ansari, 2012). Previous studies have examined knowledge management in different dimensions. Lee and Yang (2000) as cited by Al-Ghazi, (2014) divided knowledge management into dimension of knowledge acquisition, knowledge innovation, knowledge protection, knowledge integration and knowledge dissemination. Boumarafi and Jabnoun (2008) considered dimensions for knowledge management as organisational culture, organisational infrastructure, technical infrastructure, management support, reward, and vision clarity.

Alavi and Leidner (2001) as cited by Al-Ghazi, (2014) examined knowledge management dimensions by combining knowledge acquisition, knowledge innovation and knowledge integration into knowledge 'creation' process and added knowledge 'application'. Another dimension for knowledge management is by Cormican and O'Sullivan (2003); the study recognized five generic knowledge management activities: knowledge generation, knowledge representation, knowledge storage, knowledge access and knowledge distribution (Li, Tarafdar&Rao, 2012). Knowledge management can also be divided by responsiveness to knowledge, knowledge acquisition, knowledge dissemination and knowledge utilisation (Chen & Mohamed, 2008).

Although knowledge management have been said to have several dimensions, this study shall adopt the dimensions indicated by Lee, Lee, and Kang, (2005). The dimensions include knowledge creation, knowledge accumulation, knowledge sharing, knowledge utilisation and knowledge internalisation. The choice of these dimensions was based on the premise that combination of these dimensions especially knowledge utilisation and knowledge internalisation with others have important implications as indicated by Boumarafi and Jabnoun (2008), with regards to organisational performance proxied by efficiency, customer satisfaction, decision-making and quality of work. However, this study is based on three of the dimensions (knowledge creation, knowledge accumulation and knowledge sharing). These knowledge management dimensions are discussed below.

### **2.2.1 Knowledge Creation**

This is usually the first step in the knowledge management process in an organisation. It is the addition to, or the replacement of, already existing explicit and tacit knowledge in an organisation (Caruso, 2017). Knowledge creation happens as a result of communication and interaction between individuals in an organisation or because of cognitive process within an individual (Reidhead, 2020). The knowledge creation process ensures that organisations have continuous flow of significant knowledge. Knowledge creation is made possible by promoting sustainable work environment (Cascio&Aguinis, 2018).

The creation of knowledge within an organisation can be categorised into three distinct forms: explicit, implicit, and tacit knowledge (Chai & Kim, 2010). Explicit knowledge represents the most fundamental type, as it is codified, documented, and readily transferable between individuals. It is generated when data is systematically processed, organised, and interpreted, allowing for its recording and dissemination. Implicit knowledge, on the other hand, refers to the practical application of explicit knowledge (Musa, 2022). In other words, knowledge remains explicit when it is documented and communicated, but it transitions into implicit knowledge when utilised to achieve specific objectives, thereby fostering knowledge creation within the organisation (Shonubi et al., 2020). Lastly, tacit knowledge is primarily acquired through experience and is often intuitively understood rather than explicitly

articulated. Examples of tacit knowledge can include language, facial recognition, or leadership skills (Broudy, 2017).

*H<sub>01</sub>: Knowledge creation has no significant relationship with organisational performance in NNPC E & P Ltd*

### **2.2.2 Knowledge Accumulation**

Knowledge accumulation represents the second dimension of knowledge management. It is essential for all employees within an organisation to have access to the database to retrieve relevant knowledge that supports their tasks and decision-making processes. The accumulation of knowledge within organisations plays a crucial role in addressing challenges, enhancing efficiency, and improving overall management performance (Mohsen, 2015). However, if knowledge generated through managerial activities over time is not systematically accumulated, it may not effectively support future decision-making needs. Schnellbacher and Heidenreich (2020) emphasised that knowledge accumulation pertains to a management process aimed at mitigating the risks associated with organisational forgetting and knowledge loss. It serves as the organisation's mechanism for preserving valuable knowledge. This process involves managing both explicit knowledge, which is typically documented in physical records and electronic storage systems, and tacit knowledge, which is acquired through employees' experiences. Similar to how individuals store and retrieve knowledge from their memory, organisations can achieve the same through knowledge storage and retrieval processes. Consequently, organisational knowledge storage and retrieval are often referred to as collective or organisational memory.

*H<sub>02</sub>: Knowledge accumulation has no significant relationship with organisational performance in NNPC E & P Ltd*

### **2.2.3 Knowledge Sharing**

Knowledge sharing helps in combining various levels of expertise to create new organisational knowledge and acquire deeper levels of understanding leading to better business performance (Bollinger & Smith, 2001). Knowledge sharing is defined by Caruso (2017) as an exchange of knowledge and skills amongst employees, which ultimately creates intangible assets that hold much value to an organisation. Knowledge sharing extends beyond the mere dissemination of information to others; it constitutes a dynamic, bidirectional process through which individuals actively seek, acquire, and assimilate knowledge. As a critical organisational resource, knowledge sharing enhances overall organisational performance. Knowledge itself is conceptualised as an integration of data, information, facts, descriptions, and skills acquired through experience and practice.

In this study, knowledge encompasses both tacit and explicit dimensions, which employees develop by synthesising practical insights, workplace routines, and experiential learning. The process of knowledge sharing facilitates the diffusion of knowledge, fostering a more efficient and knowledge-intensive work environment. Consequently, employees perceive themselves as knowledge workers (Garcia-Morales, Martín-Rojas, & Lardón-López, 2018). When organisational knowledge repositories are effectively managed and accessible, employees can leverage these knowledge sources to execute their tasks successfully. Achieving enhanced performance necessitates the integration of knowledge from diverse sources to optimise decision-making and problem-solving processes.

*H<sub>03</sub>: Knowledge sharing has no significant relationship with organisational performance in NNPC E & P Ltd*

### **2.3 Theoretical Review**

This study is grounded in the resource-based theory, which can be traced to the works of Penrose (1959), Teece (1982), Barney (1991), and Wernerfelt (1984). The theory posits that a firm's ability to leverage valuable and inelastic resources serves as a key differentiator from its competitors. Physical resources such as infrastructure, location, and human capital, alongside non-physical resources such as skills, knowledge bases, organisational culture, and teamwork, contribute to this differentiation. At its core, the resource-based theory emphasises the significance of internal resources over external factors in driving organisational success. Traditionally, the theory has been extended to incorporate intangible assets, including knowledge assets (such as employees' tacit knowledge), processes, and technology. Furthermore, the resource-based view provides a theoretical framework for understanding the relationship between knowledge management effectiveness and firm performance, asserting that organisational success is contingent on resource availability and capability (Barney, 1991).

Knowledge management is recognised as a strategic capability that influences firm performance. Consequently, firms with superior strategic outsourcing capabilities are more likely to achieve success by leveraging partners' competencies, enhancing operational efficiency, and improving overall performance. The essence of the resource-based theory lies in the organisation's ability to capitalise on its internal resources rather than relying on external factors. Barney, Ketchen Jr., and Wright (2011) emphasised that organisational performance is fundamentally dependent on the resources and capabilities a company possesses and effectively manages through knowledge management. Similarly, Martin and Eisenhardt (2010) highlighted that firms with advanced strategic capabilities in knowledge management are more likely to achieve rapid success, operational efficiency, and enhanced organisational performance..

### **3. Methodology**

Cross-sectional survey research design was used for the study. The justification for this is that the data needed on the variables (knowledge creation, accumulation, sharing and organizational performance) was acquired from the sampled respondents using a questionnaire at a given point in time. As posited by Cummings (2018), "cross-sectional studies are relatively cheap and prone to minimal bias. The population of the study comprised all permanent and casual staff members who have spent more than 6 months in NNPC E&P Limited. A total of one thousand, eight hundred and twelve (1812) staff of NNPC E & P Limited as at December 2023 constituted the population of this study. The sample size of this study was three hundred and twenty-eight (328). The sample of this study covered staff of the NNPC E & P Limited, an oil and gas company that operates in Edo State of Nigeria. The selection of the sample size was limited to the NNPC E and P Limited (NEPL), which is a subsidiary of the Nigerian National Petroleum Corporation (NNPC now NNPC).

The sampling method adopted for this study is a combination of simple random sampling and stratified sampling. This involves dividing the population into homogeneous subgroups and then randomly selecting samples from each stratum. Using both stratified and simple random sampling techniques jointly provides increased precision, enhanced representation, efficient resource allocation, flexibility in analysis, and increased generalisability. In this case, the strata were the different cadres of employees in the company. The use of stratified sampling helped us in obtaining a sample that accurately reflects the characteristics and the diversity of the population, thus enhancing the generalizability of the finding of the study.

The study utilised structured survey questionnaire. The questionnaire items were drawn from existing studies. The questionnaire was designed in three sections. Section A collected data on demographic variables, such as gender, age, marital status, department, staff level, education level, and years of experience. Section B was used to collect data concerning the different dimensions of knowledge management, namely knowledge creation, knowledge accumulation, and knowledge sharing. Section C provided information on the dependent variables, namely organizational performance. A structured questionnaire developed by Lee, Lee and Kang (2005), and Miah (2018) was used to collect information on the research variables. The items were designed on a 5-point Likert scale, ranging from Strongly Agree (SA) to Strongly Disagree (SD), (a higher value represents greater use of a conflict style). A structured questionnaire developed by the researcher and validated by the thesis supervisors and other experts in the Department of Business Administration, was used to collect data relating to the research variables.

Descriptive statistics was first performed for all the variables of interest. The descriptive analysis was used to ascertain the perceptions of in NNPC E&P Limited staff members on the variables of interest while the correlation analysis was used to detect if there is auto-correlation among the variables. Multiple regression analysis was used to establish the relationship among the research variables. All tests were performed at a 5% level of significance using SPSS software.

#### 4. Results and Discussions

Three hundred and twenty-eight (328) copies of the questionnaire were administered. However, three hundred and twenty-one (321) were retrieved and found usable for analyses which represents 97.9% response rate.

The demographic and professional data of respondents from NNPC E&P Limited, Benin City showed that of the 321 respondents, 75.4% were male, and 24.6% were female. The largest age group was 31–40 years (36.8%), followed by 41–50 years (33%), while 51–59 years and 20–30 years accounted for 16.2% and 14%, respectively. Most respondents (75.1%) were married. Regarding job levels, 48.3% were in SS1–SS3, 46.1% in SS4–SS7, and 5.6% in M4–M6. Educationally, 38% held a Bachelor's degree, 56.4% had Master's or Doctorate degrees, and 2.8% had a Diploma. Work experience varied, with 26.2% having 1–5 years, 22.4% with 6–10 years, 23.7% with 11–15 years, and 27.7% with over 15 years.

Table 1. Construct-based descriptive statistics

Variables	N	Mean	Std. Deviation	Skewness		Kurtosis	
				Statistic	SE	Statistic	SE
Knowledge Creation (KCRE)	321	4.25	0.611	-0.935	0.136	1.261	0.271
Knowledge Accumulation (KACC)	321	4.06	0.675	-0.495	0.136	-0.024	0.271
Knowledge Sharing (KSHR)	321	4.29	0.543	-0.536	0.136	-0.037	0.271
Organisational Performance (ORGP)	321	3.56	0.604	-0.361	0.136	-0.292	0.271

Source: Researchers' Computation (2024)

Table 1 shows the descriptive statistics such as mean, standard deviation, skewness, and kurtosis of all the research variables. The analysis reveals that the mean and standard deviation scores for organisational performance are 3.56 and 0.604, respectively. The mean scores of the knowledge management dimensions are 4.25, 4.06, and 4.29 for knowledge creation, knowledge accumulation, and knowledge sharing respectively. A normality

assessment was conducted utilising skewness and kurtosis measures on the dataset. At the construct level, absolute skewness and kurtosis values ranged from 0.361 to 0.935, and 0.024 to 1.261, respectively. These figures fall below the thresholds of 3.0 for skewness and 8.0 for kurtosis as outlined in Kline’s (2011) benchmark.

#### 4.1 Correlation Analyses

The Pearson’s correlation coefficients between each pair of variables are shown in Table 2. Bryman and Cramer (1997) posit that the Pearson’s correlation coefficient (r) should not exceed 0.80; otherwise, the independent variables that show a relationship more than 0.80 may be suspected of having multi-collinearity. A critical look at Table 2 shows that there is none of the correlation coefficients that is up to 0.80. This rules out the presence of serial correlation in the dataset. The results further show that organisational performance is positively and significantly related to knowledge creation ( $r = 0.516, p < 0.05$ ), knowledge accumulation ( $r = 0.624, p < 0.05$ ) and knowledge sharing ( $r = 0.360, p < 0.05$ ).

Table 2. Pearson correlation coefficients among research variables

Variables	ORGP	KCRE	KACC	KSHR
Organisational Performance (ORGP)	1.000			
Knowledge Creation (KCRE)	0.516**	1.000		
Knowledge Accumulation (KACC)	0.624**	0.563**	1.000	
Knowledge Sharing (KSHR)	0.360**	0.417**	0.441**	1.000

Source: Researchers’ Computation (2024)

Table 3. Estimated model of organisational performance and knowledge management

Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		Std. Error	Beta			Tolerance	VIF
(Constant)	0.092	0.289	-	0.318	0.751	-	-
KCRE	0.283	0.065	0.228	4.333	0.000	0.648	1.543
KACC	0.529	0.060	0.470	8.819	0.000	0.632	1.583
KSHR	0.080	0.068	0.058	1.187	0.236	0.764	1.309

R<sup>2</sup> = 0.431; Adj R<sup>2</sup> = 0.426; F-Statistic = 80.164; F-Statistic (Prob) = 0.000;  
 Durbin-Watson = 1.785; Number of Observation = 321  
 Dependent Variable: ORGP

Source: Researchers’ Computation (2024)

The results reveal that organisational performance is positively and significantly related to all the knowledge management dimensions except knowledge sharing that is not statistically significant at 5% level of significance. The details of the relationship between the dependent variable and independent variables are shown as follows: organisational performance and knowledge creation ( $\beta = 0.283; p < 0.05$ ); organisational performance and knowledge accumulation ( $\beta = 0.529; p < 0.05$ ); organisational performance and knowledge sharing ( $\beta = 0.080; p > 0.05$ ). According to Hair, Black, Babin and Anderson (2010), to conclude that multi-collinearity is absent in any data set, the tolerance value must be considerably beyond 0.10 while the variance inflation factor (VIF) ought to be below 5. The results in Table 3 show that the tolerance values ranged from 0.632 to 0.764, an evidence of substantial scores above the minimum threshold. Additionally, the variance inflation factors (VIFs) ranging between 1.309 to 1.583 were within the acceptable limit of below 5.

## **5. Discussion of Findings**

Firstly, this study revealed a positive and statistically significant relationship between knowledge creation and organisational performance in NNPC E & P Ltd. This corroborates findings from previous studies by Asiaei, Rezaee, Bontis, Barani, Sapiei, (2021) and Iqbal et al. (2019) that posited that knowledge assets serve as invaluable resources for organisations to promote innovation, enhance decision-making processes, and drive competitive advantage. One of the key mechanisms through which knowledge creation enhances organisational performance is its facilitation of innovation. The finding suggests that NNPC E & P Ltd provides a conducive environment for knowledge creation through mechanisms such as internal collaboration, knowledge sharing forums, and learning initiatives to cultivate a culture of innovation. This enables the organisation to adapt to dynamic market conditions, develop solutions to operational challenges, and capitalize on emerging opportunities to bolster its competitive standing in the industry. It can also be deduced from the finding that knowledge creation plays an instrumental role in augmenting operational efficiency in NNPC E & P Ltd. The organisation streamlines processes, minimises redundancies, and optimizes resource allocation by leveraging internally generated knowledge and best practices. This enhances productivity, mitigates operational risks, and improves overall organisational resilience.

Secondly, the study found out that knowledge accumulation has a significant relationship with organisational performance in NNPC E & P Ltd. This correlation signifies that as NNPC E & P Ltd intensifies its efforts in accumulating and harnessing knowledge assets, there is a simultaneous improvement in its operational efficiency, productivity, and overall performance. This result corroborates the widely acknowledged notion that knowledge is a critical resource that can significantly augment organisational capabilities and competitiveness (Bamel&Bamel, 2018; Jordao, Novas& Gupta, 2020). This research outcome underscored the importance of knowledge management systems and practices in facilitating knowledge accumulation in NNPC E & P Ltd. Robust knowledge management frameworks such as databases, collaboration platforms, and training programmes are instrumental in capturing, codifying, and disseminating tacit and explicit knowledge across organisation (Aviv, Hadar& Levy, 2021; Rafi, JianMing& Ahmad, 2020). These systems facilitate seamless knowledge transfer and contribute to creating a learning organisation where employees are empowered to contribute their expertise and insights in promoting innovation and driving performance improvements. NNPC E & P Ltd can capitalise on its intellectual capital to drive performance improvements, enhance competitiveness, and achieve long-term sustainability by investing in robust knowledge management systems and foster a culture of continuous critical learning.

Thirdly, the study found out that knowledge sharing has a positive but non-significant relationship with organisational performance in NNPC E & P Ltd. The absence of statistically significant relationship between knowledge sharing and organisational performance may initially appear counterintuitive, given the widely acknowledged benefits of knowledge sharing in enhancing operational efficiency, innovation, and problem-solving within organizations (Crhova&Matošková, 2019; Li, Song, Wang & Li, 2019). However, several factors unique to NNPC E & P Ltd could be responsible for the outcome. First, the organisational culture and structural dynamics within NNPC E & P Ltd may influence the effectiveness of knowledge sharing practices. The hierarchical nature of the company's structure or the presence of 'isolated' departments could hinder the free flow of knowledge across different units which could impact on the overall organisational performance. Additionally, cultural factors such as a reluctance to share knowledge due to perceived power differentials or competitive dynamics might impede the realisation of the full potential of

knowledge sharing initiatives. Another likely explanation for the non-significant relationship found between knowledge sharing and organisational performance in NNPC E & P Ltd could be the mediating role of intervening variables that influence the translation of knowledge sharing into tangible organisational outcomes. Factors such as leadership support, employee motivation, or the presence of conducive work environments may serve as catalysts or barriers to the effective sharing of knowledge for performance improvement.

## 5.1 Conclusion and Recommendations

The study highlights the critical role of knowledge management in enhancing organisational performance and competitive advantage in Nigeria's petroleum sector, specifically NNPC E&P Limited. Findings show significant positive relationships between knowledge dimensions (creation, accumulation, utilisation, internalisation) and performance, except for knowledge sharing. Sustained success demands leadership, investment, and innovation-focused culture.

Based on the findings, the following recommendations are made:

- i. NNPC E & P Ltd should invest in initiatives that foster the development and systematic collection of valuable knowledge. This could include implementing robust research and development programmes to enhance employee training, and maintaining comprehensive knowledge repositories to improve performance outcomes.
- ii. NNPC E & P Ltd should establish structured systems and incentives to encourage knowledge dissemination, such as knowledge-sharing platforms, collaborative tools, and rewards for team contributions, to maximise its latent value.
- iii. NNPC E & P Ltd should focus on creating a culture that encourages open communication and collaboration. This can be achieved by developing and adopting user-friendly digital tools to facilitate seamless knowledge exchange among employees and departments.

## References

- Akinyetun, T.S. (2016). Nigeria and oil production: Lessons for future. *International Journal of Multidisciplinary Research and Development*, 3(5), 19-24.
- Al Sawalqa, F., Holloway, D. & Alam, M. (2011). Balanced Scorecard Implementation in Jordan: An Initial Analysis. *International Journal of Electronic Business Management*, 9(3), 196-210.
- Alavi, M., & Leidner, D. E. (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly*, 25(1), 107-136. <https://doi.org/10.2307/3250961>
- Al-Ghazi, L.I. (2014). The Effect of Knowledge Management on Organizational Performance Using the Balanced Scorecard Perspectives (Jordanian Private Hospitals in the City of Amman: A Case Study). Thesis is submitted in partial fulfillment of the requirements for the Master degree in Business Administration Department of Business Administration Middle East University
- Alrubaiee, L. (2012). Exploring the relationship between ethical sales behaviour, relationship quality, and customer loyalty. *International Journal of Marketing Studies*, 4(1), 7. <https://doi.org/10.5539/ijms.v4n1p7>

- Asiaei, K., Rezaee, Z., Bontis, N., Barani, O., & Sapiei, N. S. (2021). Knowledge assets, capabilities and performance measurement systems: a resource orchestration theory approach. *Journal of Knowledge Management*, 25(8), 1947-1976. <https://doi.org/10.1108/JKM-09-2020-0721>
- Aviv, I., Hadar, I., & Levy, M. (2021). Knowledge management infrastructure framework for enhancing knowledge-intensive business processes. *Sustainability*, 13(20), 11387. <https://doi.org/10.3390/su132011387>
- Badpa, A., Salim, J., Yahaya, J., Foroozesh, P. & Arbabi, M.S. (2018). The effect of KMS usage on organisational performance in oil and gas industry: an empirical study in the context of developing economy. *International Journal of Trend in Research and Development*, 5(2), 21-31.
- Bamel, U. K., & Bamel, N. (2018). Organizational resources, KM process capability and strategic flexibility: a dynamic resource-capability perspective. *Journal of Knowledge Management*, 22(7), 1555-1572. <https://doi.org/10.1108/JKM-10-2017-0460>
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*. <https://doi.org/10.1177/014920639101700108>
- Barney, J. B., Ketchen Jr, D. J., & Wright, M. (2011). The future of resource-based theory: revitalization or decline?. *Journal of Management*, 37(5), 1299-1315. <https://doi.org/10.1177/0149206310391805>
- Bollinger, A. S., & Smith, R. D. (2001). Managing organizational knowledge as a strategic asset. *Journal of Knowledge Management*, 5(1), 8-18. <https://doi.org/10.1108/13673270110384365>
- Borman, W.C. & Motowidlo, S.J. (1993). Task performance and contextual performance: The meaning for personnel selection research. *Human Performance*, 10(2), 99-109. [https://doi.org/10.1207/s15327043hup1002\\_3](https://doi.org/10.1207/s15327043hup1002_3)
- Boumarafi, B., & Jabnoun, N. (2008). Knowledge management and performance in UAE business organizations. *Knowledge Management Research & Practice*, 6, 233-238. <https://doi.org/10.1057/kmrp.2008.16>
- Broudy, H.S. (2017). Types of knowledge and purposes of education. In *Schooling and the acquisition of knowledge*. 1-17. Routledge. <https://doi.org/10.4324/9781315271644-1>
- Bryman, A., & Cramer, D. (2012). *Quantitative data analysis with IBM SPSS 17, 18 & 19: A guide for social scientists*. Routledge. <https://doi.org/10.4324/9780203180990>
- Caruso, S. J. (2017). A foundation for understanding knowledge sharing: Organisational culture, informal workplace learning, performance support, and knowledge management. *Contemporary Issues in Education Research*, 10, 45-52. <https://doi.org/10.19030/cier.v10i1.9879>
- Cascio, W. F., & Aguinis, H. (2018). *Applied psychology in talent management* (8<sup>th</sup> ed.). Thousand Oaks, CA: Sage Publications. <https://doi.org/10.4135/9781506375953>
- Chai, S., & Kim, M. (2010). What makes bloggers share knowledge? An investigation on the role of trust. *International Journal of Information Management*, 30, 408-415. <https://doi.org/10.1016/j.ijinfomgt.2010.02.005>

- Chen, L., & Mohamed, S. (2008). Contribution of knowledge management activities to organizational business performance. *Journal of Engineering, Design and Technology*, 6(3), 269-285. <https://doi.org/10.1108/17260530810918289>
- Cormican, K., & O'Sullivan, D. (2003). A scorecard for supporting enterprise knowledge management. *Journal of Information & Knowledge Management*, 2(03), 191-201. <https://doi.org/10.1142/S0219649203000395>
- Crhová, Z., & Matošková, J. (2019). The link between knowledge sharing and organizational performance: empirical evidence from the Czech Republic. *International Journal of Knowledge Management (IJKM)*, 15(3), 1-23. <https://doi.org/10.4018/IJKM.2019070101>
- Crowther, D., & Aras, G. (2008). *Corporate social responsibility*. Ventus Publishing ApS.
- Cummings, C. L. (2018). Cross-sectional design. *The SAGE Encyclopedia of Communication Research Methods*. Thousand Oaks: SAGE Publications Inc. Retrieved.
- Desai, A. & Rai, S. (2016). Knowledge management for downstream supply chain management of Indian public sector oil companies. *Procedia Computer Science*, 79, 1021-1028. <https://doi.org/10.1016/j.procs.2016.03.129>
- Gadzama, N. M., & Ayuba, H. K. (2016). On major environmental problem of desertification in Northern Nigeria with sustainable efforts to managing it. *World Journal of Science, Technology and Sustainable Development*, 13(1), 18-30. <https://doi.org/10.1108/WJSTSD-06-2015-0035>
- García-Holgado, A., García-Peñalvo, F. J., Hernández-García, Á., & Llorens-Largo, F. (2018). Analysis and improvement of knowledge management processes in organisations using the business process model notation. Proceedings from the *Annual Conference of the Global Innovation and Knowledge Academy*, 2015 (pp. 93-101). [https://doi.org/10.1007/978-3-319-22204-2\\_9](https://doi.org/10.1007/978-3-319-22204-2_9)
- Gavrea, C., Ilies, L. & Stegorean, R. (2011). Determinants of organisational performance: The case of Romania. *Management & Marketing*, 6(2).
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. (2010). *Multivariate data analysis*. Uppersaddle River.
- Ho, L.A. (2008). What affects organizational performance? The linking of learning and knowledge management. *Industrial Management & Data Systems*, 108(9), 1234-1254. <https://doi.org/10.1108/02635570810914919>
- Iqbal, A., Latif, F., Marimon, F., Sahibzada, U. F., & Hussain, S. (2019). From knowledge management to organizational performance: Modelling the mediating role of innovation and intellectual capital in higher education. *Journal of Enterprise Information Management*, 32(1), 36-59. <https://doi.org/10.1108/JEIM-04-2018-0083>
- Jayasingam, S., Ramahi, T., Jantan, M., & Ansari, M. (2012). Knowledge management practices and performance: are they truly linked? *Knowledge Management Research & Practices*, 1-10.
- Jordão, R. V. D., Novas, J., & Gupta, V. (2020). The role of knowledge-based networks in the intellectual capital and organizational performance of small and medium-sized enterprises. *Kybernetes*, 49(1), 116-140. <https://doi.org/10.1108/K-04-2019-0301>
- Lee, K. C., Lee, S., & Kang, I. W. (2005). KMPI: measuring knowledge management performance. *Information & Management*, 42(3), 469-482. <https://doi.org/10.1016/j.im.2004.02.003>

- Li, Y., Song, Y., Wang, J., & Li, C. (2019). Intellectual capital, knowledge sharing, and innovation performance: Evidence from the Chinese construction industry. *Sustainability*, 11(9), 2713. <https://doi.org/10.3390/su11092713>
- Madugba, J.U., Ekwe, M.C. & Okezie, S.O. (2016). Evaluation of the contribution of oil revenue on economic development in Nigeria. *International Journal of Economics and Finance*, 8(6), 210-218. <https://doi.org/10.5539/ijef.v8n6p210>
- Matayong, S. & Mahmood, A. (2013). The review of approaches to knowledge management system studies. *Journal of Knowledge Management*, 17(3), 472-490. <https://doi.org/10.1108/JKM-10-2012-0316>
- Miah, M. M. (2018). The impact of employee job satisfaction toward organisational performance: A study of private sector employees in Kuching, East Malaysia. *International Journal of Scientific and Research Publications*, 8(12), 270-278. <https://doi.org/10.29322/IJSRP.8.12.2018.p8437>
- Mohsen, A.S. (2015). Effects of oil and non-oil exports on the economic growth of Syria. *Academic Journal of Economic Studies*, 1(2), 69-78.
- Musa, B. (2022). The Public Sector in Nigeria: An Exploration of the Role of Nigerian National Petroleum Corporation (NNPC). *Eurasian Journal of Management & Social Sciences*, 3(2). <https://doi.org/10.23918/ejmss.V3i2p40>
- Obioma, H. & Ogelle, O. (2016). National Participation in the Nigeria Oil and Gas Industry: Prospects and Challenge. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)*, 7(2), 134-144.
- Odularu, G. O. (2008). Crude oil and the Nigerian economic performance. *Oil and Gas business*, 2008, 1-29.
- Ogbuigwe, A. (2018). Refining in Nigeria: history, challenges, and prospects. *Applied Petrochemical Research*, 8, 181-192. <https://doi.org/10.1007/s13203-018-0211-z>
- Olalekan, S.A., Samuel, O.O. & John, O.D. (2012). Organisational memory and organisational performance: Evidence from Kresta Laurel Company in Lagos State, Nigeria.
- Omotayo, F.O. (2015). Knowledge management as an important tool in organisational management: A Review of Literature. *Library Philosophy and Practice*, 1(2015), 1-23.
- Ovbagbedia, O.O. (2016). *Framework for knowledge management implementation in oil and gas projects: case Nigeria and UK*. Liverpool John Moores University (United Kingdom).
- Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. Oxford: Basil Blackwell. (This seminal book introduced the resource-based view by discussing the firm's internal resources as key determinants of its growth and competitive advantage.)
- Rafi, M., JianMing, Z., & Ahmad, K. (2020). Digital resources integration under the knowledge management model: an analysis based on the structural equation model. *Information Discovery and Delivery*, 48(4), 237-253. <https://doi.org/10.1108/IDD-12-2019-0087>
- Reidhead, C. (2020). Impact of organisational culture on employee satisfaction: A case of Hilton hotel, United Kingdom. *Journal of Economics and Business*, 3(1), 32-41. <https://doi.org/10.31014/aior.1992.03.01.209>
- Schnellbacher, B. & Heidenreich, S. (2020). The role of individual ambidexterity for organisational performance: examining effects of ambidextrous knowledge seeking and

- offering. *The Journal of Technology Transfer*, 45(5), 1535-1561. <https://doi.org/10.1007/s10961-020-09781-x>
- Shonubi, A.O., Odunlami, S.A. & Akintaro, A.A. (2020). Effect of knowledge sharing on organisational performance: A Study of Kresta Laurel Company in Lagos State, Nigeria. *LAPAI International Journal of Management and Social Sciences*, 12(2), 26-41.
- Teece, D. J. (1982). Toward an economic theory of the multiproduct firm. *Journal of Economic Behavior & Organization*, 3(1), 39–63.
- Tippins, M.J. & Sohi, R.S., (2003). IT competency and firm performance: is organisational learning a missing link?. *Strategic Management Journal*, 24(8), 745-761. [https://doi.org/10.1016/0167-2681\(82\)90003-8](https://doi.org/10.1016/0167-2681(82)90003-8)
- Tseng, S.M. & Lee, P.S. (2014). The effect of knowledge management capability and dynamic capability on organisational performance. *Journal of Enterprise Information Management*, 27(2), 158-179. <https://doi.org/10.1108/JEIM-05-2012-0025>
- Tubigi, M. & Alshawi, S. (2015). The impact of knowledge management processes on organisational performance: The case of the airline industry. *Journal of Enterprise Information Management*, 28(2), 167-185. <https://doi.org/10.1108/JEIM-01-2014-0003>
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171-180. <https://doi.org/10.1002/smj.4250050207>