

**MODERATING ROLE OF ORGANIZATIONAL
INNOVATION AND OPENNESS ON THE
RELATIONSHIP BETWEEN KNOWLEDGE
MANAGEMENT, ORGANIZATIONAL
LEARNING AND ORGANIZATIONAL
PERFORMANCE IN OIL AND GAS SECTOR IN
UAE**

**AHMED ALI MOHAMED KHAMEIS
ALYAMMAHI**

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by

**AHMED ALI MOHAMED KHAMEIS
ALYAMMAHI**

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**PERANAN INOVASI DAN KETERBUKAAN ORGANISASI SEBAGAI
PEMODERAT TERHADAP HUBUNGAN ANTARA PENGURUSAN
PENGETAHUAN, PEMBELAJARAN ORGANISASI DAN PRESTASI
ORGANISASI SEKTOR MINYAK DAN GAS DI UAE**

ABSTRAK

Dalam sektor minyak dan gas UAE, di mana kecekapan dan inovasi adalah penting, organisasi bergantung pada pengurusan pengetahuan dan pembelajaran organisasi untuk meningkatkan prestasi. Objektif kajian ini adalah untuk mengkaji bagaimana penjana, perkongsian, dan penggunaan pengetahuan, bersama dengan pembelajaran organisasi, memberi kesan kepada prestasi organisasi. Selain itu, kajian ini turut meneliti kesan langsung inovasi dan keterbukaan organisasi terhadap prestasi, serta peranan moderasi kedua-duanya dalam memperkukuhkan hubungan antara pengurusan pengetahuan, pembelajaran organisasi, dan prestasi. Bagi mencapai matlamat ini, data telah dikumpulkan melalui soal selidik yang disasarkan kepada pengurusan atasan dalam industri minyak dan gas. Sebanyak 171 respons yang sah telah dianalisis menggunakan SPSS dan Smart PLS melalui statistik deskriptif, penilaian model pengukuran, dan penilaian model struktur. Hasil kajian menunjukkan bahawa penjana, perkongsian, dan penggunaan pengetahuan, bersama dengan pembelajaran organisasi, memberi kesan positif terhadap prestasi organisasi. Selain itu, inovasi organisasi secara signifikan memperkukuhkan hubungan antara penjana pengetahuan, pembelajaran organisasi, dan prestasi organisasi. Begitu juga, keterbukaan organisasi mempengaruhi hubungan antara penjana pengetahuan, penggunaan pengetahuan, pembelajaran organisasi, dan prestasi organisasi. Penemuan ini menekankan kepentingan memupuk inovasi dan keterbukaan untuk

memaksimalkan manfaat pengurusan pengetahuan. Hasil kajian ini juga memberikan wawasan berharga kepada pembuat dasar dalam sektor minyak dan gas UAE untuk meningkatkan ketelusan dalam perkongsian data dan pemindahan pengetahuan di dalam dan antara organisasi. Oleh itu, dengan menggunakan dasar berasaskan inovasi, organisasi dapat meningkatkan penyimpanan pengetahuan, mekanisme prosedur, dan inisiatif pembelajaran bagi meningkatkan prestasi. Tambahan pula, pengintegrasian latihan teknikal dan inovasi dapat memperkukuhkan kecekapan dan kelestarian organisasi.

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ABSTRACT

In the oil and gas sector of UAE where efficiency and innovation are crucial, organizations rely on knowledge management and organizational learning to enhance performance. The objective of this study is to examine how knowledge generation, sharing, and utilization, along with organizational learning, impact organizational performance. Additionally, it explores the direct impact of organizational innovation and openness on performance and their moderating roles in strengthening the relationship between knowledge management, organizational learning, and performance. To achieve this, data was collected through a survey questionnaire targeting top management professionals in the industry. A total of 171 valid responses were analyzed using SPSS and Smart PLS through descriptive statistics, measurement model evaluation, and structural model assessment. The findings confirm that knowledge generation, sharing, and utilization, along with organizational learning, positively impact organizational performance. Moreover, organizational innovation significantly strengthens the relationship between knowledge generation, organizational learning, and organizational performance. Similarly, organizational openness moderates the relationship between knowledge generation, knowledge utilization, organizational learning, and organizational performance. These insights highlight the importance of fostering innovation and openness to maximize the benefits of knowledge management. The findings of this study provide valuable

insights for policymakers in the UAE oil and gas sector for the purpose of enhancing the transparency in data sharing and knowledge transfer within and across organizations. Therefore, by leveraging innovation-driven policies, organizations can improve knowledge storage, procedural mechanisms, and learning initiatives to boost performance. Additionally, integrating technical and innovation-focused training can further enhance organizational efficiency and sustainability.

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter mainly covers the background of the study by focusing on the variables and targeted industry. It explains the problem statement, followed by justification and rationale, research objectives and research questions. Moreover, the study scope, significance, and key terms are also explained in this chapter. Overall, the chapter also highlights the structure of the entire thesis.

1.2 Background

The UAE, or the United Arab Emirates, encapsulates seven states: Abu Dhabi, Dubai, Sharjah, Ajman, Umm al Quwain, Ras Al Khaimah, and Fujairah (Govt. of UAE, 2022). UAE is a premier member of the Organization of Petroleum Exporting Countries (OPEC) and holds a significant position in the Gas Exporting Countries Forum (GECF) (Almazrouei et al., 2019). This country has long been a vital member and constituent of the international oil and gas market. It is considered the seventh largest oil reserve holder in the world. It holds a large reserve of oil, amounting to 97.8 billion barrels (Al-Ali et al., 2018). A total of 96 percent of these reserves are situated in the State of Abu Dhabi, while two percent of the proven reserves amounting to two billion barrels are located in the state of Dubai. The remaining two percent are split and spread across the states of Ajman, Sharjah, Fujairah, Ras Al-Khaimah, and Umm Al-Quwain (Shqairat & Sundarakani, 2018).

Although the oil and gas industry in UAE has been playing a substantial role in the economic and financial progress of the region, it is facing some fluctuation in

terms of performance outlook. For example, one of the leading market role players in the UAE region has been named ADNOC. However, over recent years, there has been a substantial decline in the stock price of the ADNOC. For example, during May 2021, the stock price of the ADNOC was found to be 5.01\$, which is now 3.57\$ in March 2024. This decline in the stock price over the past three years reflects that the company needs help to boost its performance outlook in UAE's oil and gas industry (Market Watch, 2024).

Similarly, the stock price for the Emirates National Oil Company (ENOC) was found at the highest level of 23.70% in 2014, which is now standing at 7.65 as of April 2024. The China National Petroleum Corporation has also faced a decline of 7.52% in stock prices from 2023-2024 (Financial Times, 2024). Moreover, the stock price for the Occidental Petroleum Corporation was found to be at \$66.63 in 2024, which was at 98.95\$ in 2011. These findings indicate that most of the critical role players in the UAE's oil and gas industry have faced a substantial decline in their performance outlook in the last decade, reflecting a poor performance outlook.

The UAE's oil and gas sector, despite being a global leader, is facing growing challenges that affect its overall performance. Companies like ADNOC and ENOC have seen a drop in stock prices and operational efficiency, signaling the need for strategic improvements. A key issue is the lack of a structured knowledge management (KM) system, which plays a crucial role in generating, sharing, storing, and utilizing knowledge to improve organizational learning and innovation. While many studies discuss KM in general industries, there is little research on how it impacts highly technical sectors like oil and gas, leaving a theoretical gap. On the practical side, there are no clear policies or frameworks guiding effective knowledge-sharing, innovation-led decision-making, and technological advancement in this industry. This study aims

to fill these gaps by examining how KM, organizational learning, and innovation can enhance performance in the UAE's oil and gas sector. It also provides policy recommendations to improve data transparency, knowledge sharing, and innovation strategies, helping the industry stay competitive and efficient in a rapidly evolving market.

The concept of knowledge management (KM) is the procedure of generating, storing, sharing, and utilizing information (Di Vaio, et al., 2021). The procedures and processes involved in KM, which are used to enhance organizational performance and create a significant competitive edge (Gunjal, 2019). The effects of KM and organizational learning on the performance of organizations are manifold (Sumbal et al., 2018). The interest in KM as a discipline has been prominent since the early 1900s when the quickening pace of market advancement in response to technological change was becoming a common feature of business organizations. Innovation was seen as a requirement for sustenance and survival (Adam & Alarifi, 2021) . In contrast, organizational learning became increasingly crucial for business success, and one way to attain this was by exploiting the resources available for knowledge (Sumbal et al., 2017).

The relative impacts of knowledge management and organizational learning on the constructions of organizational performance are manifold. Ideally, the presence of a KM in an organization is viewed as an informational technology resource that further informs, evaluates, and predicts performance outcomes (Aral & Weill, 2007). Technical and experienced incumbents of an organization are responsible for generating the required knowledge resources within an organization (Shqairat & Sundarakani, 2018). Experienced and professional individuals document their learning activities so that the new employees can facilitate and utilize these resources to

understand the organization's performance concerns. When a knowledge resource is created in an organization, it is available to be stored in the organizational databases and other internal networks so that it can be shared and utilized by people who need guidance (Fartash et al., 2018). This KM environment encapsulates people, technologies, and processes in the overall process. The positive environment creates a space that allows employees to attain advancement and develop relevant competencies, and thus, a learning environment is created.

Organizations are transforming into knowledge-intensive facilities through adaptive, hierarchical, and generative learning directions (Herremans & Isaac, 2005). Sharing essential information across the organization accounts for the company's and industry's development and success. Variables like OL also utilize knowledge resources and management systems and teach them in a way that ensures organizational performance (Camisón et al., 2017). Ideally, theoretical and empirical testing would confirm a direct relation between associated learning outcomes and KM exercises with the overall performance of industries driven by technological and infrastructural dynamism (Alfaki & Ahmed, 2017). Other vital constituents and effects of this relationship include OL practices, orientation, and acceptance of external information sources. Affective KM and learning exercises positively impact the generation of innovative activities and work procedures that lead to positive performance outcomes (Alshehhi & Jasimuddin, 2016). Acceptability of foreign and external sources of information increases the knowledge pool of organizations, which helps build positive performance activities. In a technologically dynamic industry like oil and gas and in the UAE, which is a dominant market leader, these relationships can be studied positively, and their associations can be tested (Al Hammadi & Bernard, 2016).

In increasing studies, KM systems are viewed as only technological information processing resources and fail to teach the human component in the final process. Knowledge generation, no doubt, creates resources for other organizational and industrial members, which cultivates the processes of sharing, storage, and utilization of the resources (Holsapple & Joshi, 2001). Knowledge sharing helps prepare against technological and organizational change that is imminent in an industry as dynamic as oil and gas. Thus, the negative tendencies or unavailability of vital information hampers the performance aspects of organizations and industries.

Organizational learning (OL) is the formalized process of knowledge creation, retention, and transference between an organization's individuals, teams, and executives (Baporikar, 2020). From the learning behavior undertaken by an organization, the tendency to commit errors and mistakes diminishes over time, and impactful knowledge resources are created. These reserves encompass the varied domains of the organization and facilitate employees of every level in learning new competencies and attaining low levels of errors (Darwish et al., 2018). OL is a hierarchical process and emulates a potential knowledge resource over time. Some studies have coined it as passing instructions or information from experienced organizational members to new ones. A developed sector like oil and gas has a significant monopoly on local players (ADNOC, Dubai Petroleum, SNOC, etc.). Thus, a considerable proportion of trained and experienced individuals can guide the incoming employees in the correct direction. If these leaders interact positively with the new employees, they can motivate and inspire them to become seasoned professionals (Al-Ameri et al., 2019). As the dimension of OL is quite helpful in improving organizational performance, specifically over the long run, its consideration is quite important.

Meanwhile, OL helps enhance employees' skills and learning capabilities and generate positive and constructive ideas. Such practices at the workplace would help generate constructive KM practices, which in return are positively linked with a higher performance outlook. For this reason, the current study has also considered OL as a second determinant of ORP, specifically in the UAE's oil and gas industry.

The dynamic nature of the economy and competition prevailing in a market like the UAE calls for introducing innovative incremental approaches to business and managing the workforce to achieve a competitive advantage (Busaibe et al., 2017). The oil and gas sectors are the most profitable and most significant revenue generator for the Emirates. The innovation contest evolves radically with the global growth and transference of technology and management approaches. This presents an environment in which high training is endorsed; in the current scenario, gender differences are neglected, and female engineers and managers are also being recognized for their innovative competencies. The oil and gas industry presents a suitable environment for developing organizational innovation (Busaibe et al., 2017). More specifically, Figure 1.1 provides the performance outlook for one of the most prominent oil and gas role players in the UAE region, ADNOC. The trends in performance outlook reflect that during the financial durations of the past two years, revenue was 16,132,060, which was lower than 20,921,115 during 2020. This means that revenue performance for the oil and gas industry was higher in 2020 than in 2021. Additionally, the operating income was found to be slightly more significant in 2021 than it was in 2020. The stated findings infer that the performance (in terms of total revenue) in the ADNOC will be lower in 2021, which needs some immediate attention from management and other key representatives in the oil and gas industry.

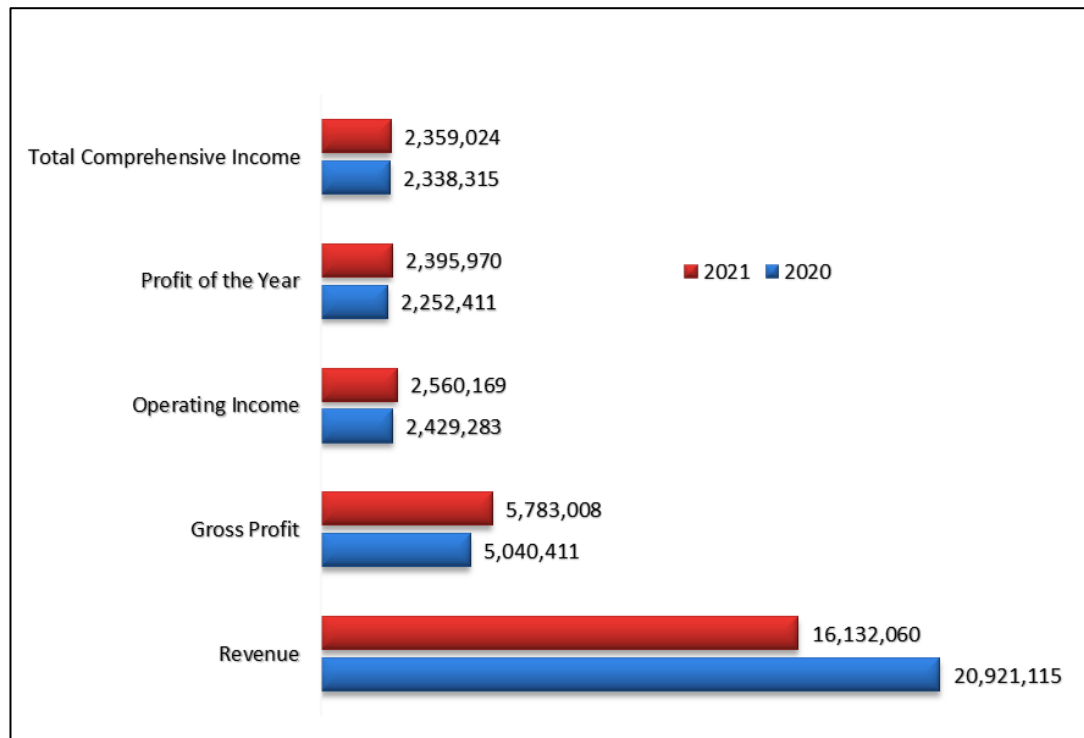


Figure 1.1 Performance Outlook for ADNOC
Source: ADNOC (2021)

1.3 Problem Statement

Organizational performance is a strategic concept with multiple dimensions, with the significant purpose of reflecting operational outcomes regarding efficiency and effectiveness (Combs et al., 2005). It determines how organizations use their financial and non-financial assets to achieve strategic objectives. Among several, the trends in the net income, revenue, and operating income or asset changes over time have widely been recognized as key indicators to determine the trends in organizational performance (Gitman et al., 2015). Considering the stated debate, the organizational performance of the UAE's oil and gas sector has been observed to have had some substantial variation over recent years. ADNOC, a global leader in the oil and gas sector, has been active across various industry segments. However, its financial performance has seen a decline in recent years. In 2020, the company

reported a net revenue of AED 20.92 billion, which dropped to AED 16.13 billion in 2022, resulting in a loss of AED 4.79 billion. Additionally, a review of ADNOC's balance sheet shows that its total equity decreased from AED 3.43 billion in 2020 to AED 3.20 billion in 2022, marking a decline of AED 232.94 million. This downward trend indicates financial challenges that may require strategic interventions to improve performance.

Petrofac International, another major player in the UAE oil and gas industry, has also experienced a notable decline in performance. In 2023, the company's revenue dropped by 3.21% compared to 2022, while its net profit margin saw a massive decline of 523.08% (Google Finance, 2024b). Similarly, Halliburton, another key player in the industry, has faced a significant drop in stock value, with share prices falling from \$70.93 in 2014 to \$40.70 in 2024, marking a 42.68% decline (Google Finance, 2024a). Other companies, including LUKOIL International, Rotary Engineering Pte. Ltd., and Control Contracting & Trading Company, have also seen fluctuations in their stock prices, reflecting an overall decline in industry performance. These trends highlight the instability within the UAE's oil and gas sector, emphasizing the urgent need for strategic measures to tackle these challenges and drive long-term growth.

While concerns about organizational performance in the oil and gas industry continue to grow in the recent years, the available research studies show that leveraging organizational resources like knowledge management and learning capabilities can significantly improve performance and create a competitive edge (Alkhalaf & Badewi, 2024; Andrej et al., 2023; Makhoulfi et al., 2023). Effective KM practices ensure that valuable expertise, operational knowledge, and innovative solutions are not only retained within the organization but also shared and applied

efficiently. Key KM activities, such as knowledge generation, sharing, storage, and utilization, contribute to better decision-making, improved risk management, and greater operational efficiency (Nonaka & Takeuchi, 1995). In an industry where technical expertise, safety standards, and evolving technologies are quite critical to be considered, the idea of KM can help reduce errors, optimize processes, and accelerate the adoption of innovations (Sumbal et al., 2018). Additionally, those companies that document and apply lessons learned from past operations can prevent costly mistakes, streamline drilling and refining processes, and enhance productivity (Gunjal, 2019).

Similarly, organizational learning plays a crucial role in helping companies adapt and evolve in response to technological advancements, shifting market conditions, and regulatory changes (Argote & Miron-Spektor, 2011). Companies that invest in employee training, structured learning programs, and a knowledge-sharing culture tend to be more resilient in uncertain market conditions and more agile in responding to industry challenges (Garavan et al., 2020). Research shows that organizations with a strong learning culture consistently outperform competitors by driving innovation, encouraging collaboration, and enhancing problem-solving skills (Cohen & Levinthal, 1990).

In a highly competitive and volatile industry like oil and gas, KM and learning initiatives also help organizations improve knowledge transfer across departments and projects, strengthening coordination between research, production, and management teams. This integration enhances efficiency, reduces operational risks, and supports long-term business sustainability and growth (Martins et al., 2019). Therefore, investing in KM and fostering a culture of continuous learning can help UAE oil and

gas companies navigate industry challenges, make better decisions, and gain a long-term competitive advantage in an ever-changing business environment.

While the concept of KM, organizational learning, and organizational performance have been widely explored in both theoretical and empirical research, there is limited attention given to these factors within the UAE's oil and gas industry. Existing studies have examined KM practices such as knowledge generation, sharing, and utilization, but their impact on organizational performance in this specific industry remains underexplored. Additionally, while organizational performance trends have been discussed in the literature, most studies rely on secondary data, and empirical investigations using primary data, such as surveys, are scarce. Another significant gap lies in the moderating role of organizational innovation and organizational openness in the relationship between KM, organizational learning, and performance in the oil and gas sector. Although research suggests that these factors contribute to improving performance, their specific influence in this industry remains unclear. Furthermore, many studies have primarily focused on theoretical or empirical contributions without offering practical policy recommendations on how KM, learning, innovation, and openness can be effectively utilized to enhance performance. To address these gaps, this study aims to provide empirical insights and policy implications that contribute to both academic research and industry practices in the UAE's oil and gas sector.

Considering the given variables of interest, the Resource-Based View or RBV and Organizational Learning Theory has provided a significant theoretical foundation. Moreover, the RBV aims to emphasize that organizations gain a competitive advantage by effectively managing and utilizing different number of resources like knowledge, innovation, and learning capabilities. Moreover specifically, from the context of oil

and gas industry, where expertise and technical knowledge are crucial, KM practices like knowledge generation, sharing, and utilization serve as valuable organizational-related resources that enhance organizational performance. Meanwhile, organizational learning theory highlights the fact that continuous learning, adaptation, and knowledge exchange allow firms to stay competitive in a dynamic environment. The ability to absorb and apply knowledge efficiently not only improves decision-making and innovation but also helps organizations respond effectively to industry challenges. By integrating these theories, this study explains how KM, organizational learning, innovation, and openness contribute to enhancing performance in the oil and gas sector of UAE.

1.4 Justification and Rationale

A common phenomenon is that organizations must collate internally with the other organizations of their industry to create significant value (Malik et al., 2018; Ochieng et al., 2018). When organizations practice the culmination process and consider their internal and external sources of information, they achieve high-performance goals and set new standards. The authors Hislop et al. (2018) pointed out that knowledge creation and sharing among various stakeholders can only generate a competitive advantage. Thus, such knowledge must be handled effectively to gain a sustainable and significant competitive advantage in the marketplace. Managing knowledge resources has become exceedingly important in today's dynamic and change-oriented environment of business organizations and markets (Ceptureanu et al., 2018; Chiabrishvili & Zaim, 2018).

Moreover, a vast body of literature confirms the development of knowledge resources as precursors of learning behaviors, innovative work behaviors, and processes to external sources of information. The relevance of these activities to

organizational performance is essential to consider. KM activities are primarily technological and are governed by technological change in a number of industries, especially one as boisterous and conforming to evolution as the oil and gas sector of UAE.

Moreover, the need for more innovation at the organizational management level has been noticed due to the scarcity of literature sources; a need for the development of organizational innovation has been highlighted and discussed in this study. More specifically, as stated earlier, this study will focus on the UAE oil and gas industry, for which the critical justification is that this industry is based on KM practices and the promotion of organizational learning. Therefore, KM and organizational learning are considered good contributors to ORP in the oil and gas industry. However, the justification for selecting the stated industry is based on the notion that existing literature is widely missing from the context of the relationship between exogenous constructs like KM and organizational learning. Moreover, the mythological justification and rationale in this research specify that a two-step approach has been applied, which is innovative in nature with some solid reasoning in determining the data-related trends, model correctness, constructs' validation, internal consistency of the items, and testing the relationship between the stated variables. Moreover, the justification in terms of policy formulation and implication also clearly shows that current research provides good insight for improving the organizational performance based on the KM and learning practices with innovative capabilities as moderating variable.

1.5 Research Objectives

1. To examine the impact of knowledge generation on organizational performance in the UAE's oil and gas industry from a resource-based perspective.
2. To analyze the role of knowledge sharing in enhancing organizational performance in the UAE's oil and gas sector from a resource-based perspective.
3. To assess the effect of knowledge utilization on organizational performance in the UAE's oil and gas industry resource-based perspective.
4. To investigate the contribution of organizational learning to organizational performance in the UAE's oil and gas sector.
5. To evaluate the direct impact of organizational innovation on organizational performance in the UAE's oil and gas industry.
6. To evaluate the direct impact of organizational openness on organizational performance in the UAE's oil and gas industry.
7. To determine the moderating role of organizational innovation in the relationship between knowledge generation and organizational performance in the UAE's oil and gas industry.
8. To determine the moderating role of organizational innovation in the relationship between knowledge sharing and organizational performance in the UAE's oil and gas industry.
9. To determine the moderating role of organizational innovation in the relationship between knowledge utilization and organizational performance in the UAE's oil and gas industry.

10. To determine the moderating role of organizational innovation in the relationship between organizational learning and organizational performance in the UAE's oil and gas industry.
11. To determine the moderating role of organizational openness in the relationship between knowledge generation and organizational performance in the UAE's oil and gas industry.
12. To determine the moderating role of organizational openness in the relationship between knowledge sharing and organizational performance in the UAE's oil and gas industry.
13. To determine the moderating role of organizational openness in the relationship between knowledge utilization and organizational performance in the UAE's oil and gas industry.
14. To determine the moderating role of organizational openness in the relationship between organizational learning and organizational performance in the UAE's oil and gas industry.

1.6 Research Questions

1. How does knowledge generation impact organizational performance in the UAE's oil and gas industry from a resource-based perspective?
2. How does knowledge sharing contribute to enhancing organizational performance in the UAE's oil and gas sector from a resource-based perspective?
3. What is the effect of knowledge utilization on organizational performance in the UAE's oil and gas industry from a resource-based perspective?

4. How does organizational learning contribute to enhancing organizational performance in the UAE's oil and gas sector?
5. What is the direct impact of organizational innovation on organizational performance in the UAE's oil and gas industry?
6. What is the direct impact of organizational openness on organizational performance in the UAE's oil and gas industry?
7. How does organizational innovation moderate the relationship between knowledge generation and organizational performance in the UAE's oil and gas industry?
8. How does organizational innovation moderate the relationship between knowledge sharing and organizational performance in the UAE's oil and gas industry?
9. How does organizational innovation moderate the relationship between knowledge utilization and organizational performance in the UAE's oil and gas industry?
10. How does organizational innovation moderate the relationship between organizational learning and organizational performance in the UAE's oil and gas industry?
11. How does organizational openness moderate the relationship between knowledge generation and organizational performance in the UAE's oil and gas industry?
12. How does organizational openness moderate the relationship between knowledge sharing and organizational performance in the UAE's oil and gas industry?

13. How does organizational openness moderate the relationship between knowledge utilization and organizational performance in the UAE's oil and gas industry?
14. How does organizational openness moderate the relationship between organizational learning and organizational performance in the UAE's oil and gas industry?

1.7 Scope of the Study

The scope of the study tends to determine the boundaries under which research has been conducted. Considering the UAE's oil and gas industry, the study's first scope determines its focus on the companies operating within the regional boundaries of the UAE. This means that firms outside the UAE's geographical location have not been considered for the purpose of data collection and subsequent analysis. Meanwhile, the study scope in terms of significant outcome variables determines that this research has considered the organizational performance of UAE's oil and gas industry. Additionally, the study scope in terms of critical explanatory determines that it has considered the role of knowledge management and organizational learning.

Moreover, this research is quantitative in nature, using a deductive research design to test the hypothesized relationships between the given variables. This means that this research is limited in terms of quantitative design, with no consideration given to qualitative approaches. At the same time, the study scope determines that it has mainly considered the top management working in the UAE oil and gas industry for the purpose of data collection using the survey questionnaire.

Additionally, the scope of the present study reveals that it has applied the two-step approach covering the measurement model and structural model assessment. The measurement model mainly determines the extent to which the latent variables' relative

items reflect the factor loadings, reliability, and validity. On the other side, the hypothetical relationships between the given variables have been tested using the structural model assessment under Smart PLS.

1.8 Significance of the Study

The significance of this study can be viewed from multiple perspectives, particularly in the context of the oil and gas industry in UAE. The stated industry holds the seventh-largest reserves of oil and natural gas in the global market. The performance and competitiveness of this sector are critical to the entire economy of UAE, hence making it essential to explore factors that influence organizational performance. The details are as follows:

Theoretical Contribution

Firstly, this study is significant because it builds upon the Resource-Based View and Organizational Learning Theory to examine the relationships between knowledge management, organizational learning, organizational performance, organizational innovation and organizational openness. While previous studies have explored these variables individually, there is a lack of research that integrates them through the theoretical lens of RBV and Organizational Learning Theory. By filling this gap, this study strengthens the theoretical foundation of KM and learning within the oil and gas sector.

Bridging the Empirical Gap

Secondly, this study addresses a critical gap by examining the three key dimensions of KM which are named as knowledge generation, knowledge sharing, and

knowledge utilization, and their direct impact on organizational performance. The oil and gas industry are highly technical and knowledge-intensive, requiring a structured KM system to enhance operational efficiency, innovation, and decision-making. However, empirical evidence on the role of KM in organizational performance within the UAE's oil and gas sector is still scarce. This study provides valuable insights into how KM practices contribute to business success, efficiency, and sustainability in one of the world's most crucial industries.

Understanding the Role of Innovation and Openness

Thirdly, this research explores the moderating effects of organizational innovation and organizational openness on the nexus between the KM, organizational learning, and performance in the oil and gas industry of UAE. While innovation and openness are known to enhance business competitiveness, their specific role in the UAE's oil and gas sector remains largely unexplored. Given the highly competitive and technology-driven nature of the industry, understanding how innovation and openness shape knowledge-driven performance strategies is crucial. This study will help organizations identify ways to leverage innovation and openness for sustained competitive advantage.

Practical and Policy Implications for the Oil and Gas Sector

Fourthly, this research carries some of the very interesting and important practical and policy implications. The UAE's oil and gas sector are a key driver of the entire economy, contributing significantly to economic progression, employment, and global energy markets. However, market volatility, fluctuating oil prices, and increasing competition demand new strategies to maintain and enhance performance.

Therefore, by identifying how KM, learning, innovation, and openness contribute to the performance outlook, this study offers actionable recommendations.

Economic and Social Impact

Additionally, this study has broad economic and social implications. The oil and gas industry in the UAE is undergoing transformation, with a growing focus on technological advancements, digitalization, and sustainability. Effective knowledge management and learning cultures can drive efficiency, reduce operational risks, and ensure workforce readiness for future industry challenges. This study provides insights that can help organizations invest in employee development, technology-driven learning, and improved knowledge-sharing mechanisms, ultimately contributing to long-term industry sustainability and national economic stability.

Future Research Implications

Finally, this study lays the foundation work for future research by offering a comprehensive understanding of KM, learning, innovation, and openness in the oil and gas sector. The findings can serve as a foundation for further exploration of industry-specific KM strategies, comparative studies across different regions, and sector-wide policy development to enhance organizational performance.

1.9 Key Terms

a) Organizational Performance

Organizational performance refers to how well an organization has achieved its financial and operational goals, including sales and profit growth, process

efficiency, employee productivity, and success in innovation (Venkatraman & Ramanujam, 1986; Richard et al., 2009).

b) Knowledge Management

The knowledge management process determines knowledge creation/generation, sharing, and utilization (Handzic et al., 2009; Ouakouak & Ouedraogo, 2019).

c) Knowledge Generation

The ability to combine information with what one already has accumulated (Ottosson, 2019).

d) Knowledge Sharing

Knowledge sharing means exchanging employees' knowledge, skills, and experiences (Nazim & Mukherjee, 2016).

e) Knowledge Utilization

A way of effectively using and commercializing various kinds of knowledge resources (Diehr & Gueldenberg, 2017).

f) Organizational Learning

Organizational learning is the process of improving actions through better knowledge and understanding. It occurs in all organizations and indicates how individuals, teams, and organizations learn and transform (Yang, 2009).

g) Organizational Innovation

Innovation is a change in products, processes, marketing methods, or organizational methods (Nakandala & Turpin, 2019).

h) Organizational Openness

Organizational openness is a philosophy that applies to all organizations and emphasizes transparency in all areas and free, unrestricted access to knowledge and information (Oxford Review, 2022).

1.10 Structure of the Thesis

This thesis will be divided into six chapters. The summary and structure of these chapters are as follows.

Chapter 1: Introduction

This chapter discusses the related variables and their relevance to the industry of interest. It also reviews the research problem, its significance, and a comprehensive problem statement. The chapter also includes a justification and rationale for the study, research questions, research objectives, and the scope and significance of the study.

Chapter 2: Literature Review

This chapter has provided a comprehensive literature review of the concerned variables. Furthermore, the theoretical background of the study based on the variables is also included in chapter two.

Chapter 3: Research Methodology

In this chapter, a brief overview of the research questions is discussed to create a bridge between the methodology and literature review. Then, the selected approach for the research design or method is discussed along with a background and rationale of the selected approach. An evaluation of the method chosen and its limitation area is also stated. This chapter also describes the unit of analysis, time horizon, study setting, population, sample, and sampling technique. A similar chapter also discusses data collection instruments and measuring techniques. Moreover, the methods used to interpret results and the rationale behind the methodology selection are also provided.

Chapter 4: Results and Analysis

This chapter presents the outcomes or results. Graphs and tables provide detailed descriptions of the results, and inferences are drawn from them.

Chapter 5: Discussion and Conclusion

This chapter presents a summary and theoretical overview of the entire research conducted for this thesis. It provides a detailed interpretation of the analysis and discusses the prevalent body of literature on the relevant variables. The final results and outcomes of this research are also summarized and discussed, along with their theoretical and practical implications.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction & Overview

The current chapter provides a comprehensive review of the relevant literature that forms the foundation of this study. It mainly focuses on the contextual meaning of the variables and theoretical frameworks, which include knowledge generation, knowledge sharing, knowledge utilization, organizational learning, organizational openness, organizational innovation, and organizational performance. Each of these variables plays a critical role in understanding how organizations in the oil and gas industry can enhance their overall performance, adapt to changes, and maintain competitiveness in a highly dynamic environment.

The chapter starts with an exploration of organizational performance, its types, key factors of organizational performance, its importance and key measures. Moreover, the next section covers the concept of knowledge management while focusing on knowledge generation, sharing, and utilization contribute to organizational performance. Knowledge generation refers to the creation of new insights and information within an organization, which can be used to drive innovation and improve business operations. Knowledge sharing, on the other hand, involves disseminating these insights across the organization to enhance collaboration and efficiency. Knowledge utilization is the process of effectively applying acquired knowledge in decision-making and operations to increase organizational capabilities and performance.

In addition to knowledge management, the chapter discusses organizational learning, which emphasizes how an organization adapts and evolves by integrating new knowledge and improving its processes. Organizational learning is considered

essential for fostering continuous improvement and for maintaining agility in the face of industry challenges. The concept of organizational openness is also explored, focusing on how an open organizational culture can facilitate knowledge exchange and the adoption of external innovations. This openness contributes to organizational flexibility and the ability to respond to new opportunities or external pressures.

The role of organizational innovation is examined as well, highlighting its significance in fostering competitive advantage through the development and implementation of new technologies, processes, and business models. Organizational performance is the ultimate outcome of these various variables and is central to the study. This section reviews the different dimensions of organizational performance, including market effectiveness, financial performance, and operational efficiency.

Theoretical underpinnings are mainly entitled as resource-based view (RBV), organizational learning theory, aiming to cover the context of the selected variables. These theories provide the framework for understanding how organizations leverage their resources and capabilities to create value and sustain competitive advantage.

Finally, the chapter identifies the literature gaps that exist in the current body of research. While significant work has been done on individual aspects of knowledge management and organizational performance, there is limited research exploring the interplay between these variables within the context of oil and gas industry of UAE. This study aims to bridge these gaps by investigating how knowledge management, organizational learning, innovation, and openness aim to influence the organizational performance in this specific industry of oil and gas.

2.2 Organizational Performance

Organizational performance is a broad term in management and financial areas. In the early 1990s, organizational performance (ORP) was defined as the process of