THE ROLE OF LOCAL CAPACITY DEVELOPMENT IN MITIGATING THE CHALLENGES FACED IN OFFSHORE DRILLING

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CHAPTER 1: INTRODUCTION

1.1 Introduction

This study is focused on highlighting the role capacity development can play in enhancing offshore drilling projects for companies and in overcoming challenges that organisations are facing. In order to do so, this research outlines the significance of offshore drilling projects from a theoretical perspective. The study highlights the multiple issues that need to be addressed for efficient and sustainable functioning of offshore drilling companies. Further, the study aims to provide the relevance of capacity development in mitigating the issues that the organisations are facing. To achieve this purpose, this chapter of the study lays out the theoretical aspects of the research by describing the context and significance of the study being conducted. Furthermore, the chapter outlines the aim and objectives of the research and the research questions that need to be addressed. Lastly, the chapter ends with a breakdown of the structure of the study being conducted.

1.2 Contextual background

One of the most important assets that any country possesses, are its natural resources. The oil and gas sector has both a direct and an indirect effect on the domestic economy, with oil and gas prices having a direct effect on the economic stability of the country. The offshore oil and gas sector is by far the most important sector in contemporary Blue Economy by value, technology and geopolitical status. The offshore oil and gas sector accounts for 37% and 28% respectively in the total oil and gas global production (Legorburu, Johnson and Kerr, 2018A large number of offshore oil and gas projects in the UK North Sea have reached or approaching the limit of their expected economic existence. Operators and contractors face a range of challenges which obstruct the cost-effective and secure completion of

decommissioning projects (Ahiaga-Dagbui et al., 2017). Questions about health and safety further increase the importance of comprehending the antecedents and consequences of offshore drilling. This drives the need for improved safety-rated interlocks and further control of offshore oil and gas wellheads, multipliers and other devices. Yet as technologies and techniques of research have progressed, so have other problems. For example, larger and more complex fields on sea floor need much more measurements, controllers and actuators (Pedersen, Durdevic and Yang, 2017). Without supportive plans, legislation, laws and regulations, well-functioning institutions and trained and educated individuals, developing countries lack the framework required to prepare, execute and reform their national and local development plans. Capacity development helps to boost and maintain this stronghold (Hope Sr, 2011). The relationships between energy, environment and development are broad and dynamic. The International Energy Agency observed that energy is profoundly involved in every economic, social and environmental aspects of human development (Matheson and Giroux, 2011). However energy generation and usage can have substantial environmental consequences that need to be handled if governments are to achieve their sustainable development targets in the long run. Capacity development plays a pivotal role here. In order to resolve the growing number of issues pertaining oil drilling it is vital to take note of the different factors that contribute to the problems. One of the main factors is lack of trained workers with adequate knowledge of the technological changes. Due to these reasons it is important to note the role of local capacity development in mitigating the challenges faced in offshore drilling in order to maximise the efficiency of oil and gas drilling organisations.

1.3 Research problem

There are multiple issues that are encountered by organisations during offshore drilling. Offshore oil and gas exploration is a risky activity that needs workers to maintain a

high degree of knowledge of the job situation (Sneddon, Mearns and Flin, 2013). Offshore employment entails weaker psychological well-being or health; in other words, offshore employees continue to suffer higher rates of stress, burnout, anxiety, depression, low job satisfaction. Offshore oil and gas drilling also entail many environmental hazards including the risk of oil spills and harming marine life (Li et al., 2016). People who are involved in oil spill clean-up operations undergo chronic haematological, hepatic, respiratory and cardiac changes or deterioration (D'Andrea and Reddy, 2018).

However, due to the benefits that are associated with the extraction of oil and gas reserves to the economy organisations are inclined towards using offshore drilling projects. Capacity development has the potential to play a significant role in mitigating the issues that are related to offshore oil and gas exploration, but there is a significant literature gap present in this area of studies that takes a closer look at the correlation of capacity development and offshore drilling (Bloomfield et al., 2018). This study focuses on identifying the correlation of capacity development in depth and identify the advantages and disadvantages that are associated with it in order to provide recommendations for organisations to consult with, for future projects by carrying out a comparative analysis of the issues identified.

1.4 Research aim and objectives

The main aim of this research is to identify the role of local capacity development in mitigating the challenges faced in offshore drilling. Moreover, the following objectives are formulated for the study:

- To comprehend the Importance of local capacity development in offshore drilling.
- To identify and assess the major challenges faced in offshore drilling.

- To shed light on the benefits of local capacity development in mitigating challenges faced in offshore drilling.
- To provide recommendations to the oil and gas sector on how they can better cope with the challenges faced in offshore drilling.

1.5 Research questions

The research questions that the study seeks to address through this research are as followed:

- How is the local capacity development in offshore drilling important?
- How can the major challenges associated with offshore drilling be identified?
- What are the benefits of local capacity development in mitigating challenges faced in offshore drilling?
- What are the relevant recommendations to the oil and gas sector on how they can better cope with the challenges faced in offshore drilling?

1.6 Rationale of the study

Even though there are previous researches present regarding offshore drilling, there is very little information available regarding the role of local development in mitigating several challenges that are faced by offshore drilling companies. Furthermore, there is scarce literature available currently that provides a comparitve analysis between the significance of local developvents in mitigating the challenges that are being posed by offshore oil drilling. Due to this gap there is a lack of awareness among organisations regarding the issue and its importance. The oil and gas sector have significant contributions in the economy of a country which is why there has to be adequate research regarding issues that are encountered in order to provide solutions (Mayer, Olson-Hazboun and Malin, 2018). Furthermore, oil and gas

drilling have extremely hazardous environmental consequences that need, to be curtailed (Gulas et al., 2017). There is a dire need for modifications in the infrastructure of the equipment used for drilling offshore (Paterson, 2017). This research serves the purpose of outlining the role of local capacity development in mitigating the challenges faced in offshore drilling.

1.7 Significance of the study

This research aims to fill the existing gap in literature by providing a comprehensive analysis of the role of local capacity development in mitigating the challenges faced in offshore drilling. The research provides recent data that can be used by researchers and analysts to further conduct studies in the relevant area of study. Furthermore, organisations can use the data from this research to form guidelines so they can carry out offshore drilling projects more efficiently and be mindful of the benefits associated with the role of local capacity development in mitigating the challenges faced in offshore drilling.

1.8 Structure of the study

The study is divided into three chapters; An introduction, review of the literature, research design and methodology, research findings and analysis and the last chapter is conclusion and recommendation. The first chapter of the study presents an introduction to the research project, the contextual background, the research problem, the rationale of the study and lastly, the significance of the study. The next chapter, literature review, analyses the existing literature on the current topic and gives a summary on prior researches. The third chapter is the methodology, which incorporates the research philosophy, research approach, research method, research strategy, data collection method and ethical considerations.

Outlining all the relevant techniques used by the researchers to reach to a conclusion for the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The industry of offshore drilling of oil and gas is always surrounded by challenges as the operations are highly risky and dangerous (ALNabhani, 2018). The risks and dangers of eloquent injuries, fatal accidents, damage to environment and loss of assets are always present and these risks and dangers are highly associated with offshore drilling of oil and gas which eventually impact the image of this industry, negatively (Xingxun, 2011). However, many efforts have been made by stakeholders in order to prevent the accidents from occurring but the ratio of an accident occurring in a single day and the probability of occupational and operational accidents still highly exist to this date. These accidents are a huge threat to gas and oil industry due to economic, social and environmental consequences that are related with it (Xingxun, 2011). Therefore, for reducing accidents and setting better standards for occupational health and safety, and environmental protection; strengthening safety measures followed by capacity development and safe operational guidelines are highly significant (ALNabhani, 2018).

2.2 The Concept behind Local Capacity Development

According to Vincent and Stephen (2015), the concept and idea of local capacity development vary in different contexts. Whereas, Fukuda-Parr and Lopes (2013) describe capacity as the ability of an individual, organisation or institution to carry out an assigned work efficiently and effectively with less dependence on external resources and on a continuous basis. Therefore, capacity development or capacity building refers to institutional development, human resource development and development of policy environment in the government as public service organisations interact and operate with each other. Moreover,

according to Merino and de los Ríos Carmenado (2012), capacity development assists in determining the effective allocation and utilisation of human resources between competing demands. It consists of activities that strengthen abilities, knowledge, behaviour and skills of people and enhances institutional processes and structures so that the firms can effectively meet their goals, mission, vision and values in a sustainable way. However, Triana (2013) has a different view about capacity development and states that capacity development refers to a number of strategies that increase the effectiveness and efficiency of government performance. Further explained by Vincent and Stephen (2015) and Triana (2013) that capacity is considered as a deviation of strategy which includes inside factors of developing capacity, inter alia, dimensions of institutional reforms, dimensions of organisational strengthening and development of human resources. Therefore, according to Vincent and Stephen (2015), capacity development has several definitions and each definition reflects a specific orientation or bias.

Vallejo and Wehn (2016) state that some researchers define capacity development as a process or approach towards development objectives which includes the building of organisational or individual's ability. Whereas, other researchers define it as a process or approach towards reduction of poverty. However, Analoui and Danquah (2017) state that CIDA (Canadian International Development Agency) defines capacity development as a strategy, methodology and approach which enhances performance at each social level and it has no single approach or one size fits all strategy for development and building. Further, organisations such as USAID strongly emphasises on the significance of capacity building to enhance development results by increasing sustainability, partnership and local ownership with donors, other local organisations, stakeholders and public sectors (Usaidlearninglab, 2017). Whereas, MSH (Management Sciences for Health) emphasises on strengthening of internal organisational systems, structures, management, processes, governance, leadership

and staff capacity to improve team, organisational and individual performances through capacity development (MSH., 2020).

2.3 Benefits of Local Capacity Development

Capacity development enhances organisational efficiency, and organisations and individuals are connected into a web of interaction and social relations. A firm's social capital is a network of associations or relationships that benefits those individuals or organisations who connect within the peers' community (Usaidlearninglab, 2013). Further, the organisational social capital benefits flow from reciprocity, information, exchange and the values of coordination. According to Shams (2016), other benefits of capacity development can be seen as: it assists in determining whether organisations can maintain competitive positions and whether relationships can provide them benefits in the value creation process. Moreover, comparative performance benefit is achieved from access to untapped information and developing unique perspectives through capacity development.

According to Memphis (2019), strategies of capacity development makes long term impacts aa they reduce the over-reliance on outside experts as sources of solutions and knowledge for organisational problems. Hence, dependence on outsiders to solve the inside problems are reduced as capacity development encourages individuals to take action on local problems themselves. Further added by Theisohn and Lopes (2013), capacity development prevails a sense of empowerment and ownership due to which organisations can gain more control over their future development, improve their capacity to take action and to envision. In addition, approaches to capacity development lead to more appropriate and feasible solutions (Memphis, 2019). However, as per UNDP (2019), capacity development can assist in addressing capacity problems, in determining how to use advanced technologies that will be best for an organisation and in empowering or enabling trainees to train others. Hence,

team and overall organisational performance and efficiency can be achieved. World Health Organization (2015) agrees with this view. In addition, King and Cruickshank (2012) state that community inclusion is seen as one of the benefits of capacity development.

2.4 Challenges Faced in Offshore Drilling of Oil and Gas

Thierry (2016) states that production operations and explorations in deep waters demand modern technological and technical expertise. Moreover, continuous advancement in technologies is the reason behind the establishment of large-scale production vessels and platforms for offshore drilling of oil and gas, robotic equipment and drill ships. However, as per Wangjun (2016), deep water explorations and operations require sophisticated solutions and huge resources which means that investment in billions is always needed. Drill ship is a major vessel equipped with heavy pipes and extra-long cables that is utilised to drill wells under water. These drill ships require specialised vessels to enhance output and efficiency, and they cost up to $1 million for a single day (Thierry, 2016). Therefore, costs are a huge problem for offshore drilling of oil and gas. Similarly, as per the study of Kelessidis (2009), the ever increasing and continuous demand for fossil fuels, gas and oil are the primary causes that have pushed and compelled the exploration and drilling sector into deep waters which is now more than 2000 meters under water.

Pickl (2019) states that in spite of a huge number of investments in renewable energy, the need for oil and gas still remains in the world, even in the current times. The world still requires at least 20 to 30 years to get freedom from the need of gas and oil. Moreover, due to drying up of onshore resources, the world is moving more towards offshore gas and oil operations and explorations. Offshore gas and oil productions and explorations have drastically changed due to developments in technologies and change in styles of operations over the past decade (openocean, 2015). Rhodes (2010) further adds that retrieving and

drilling oil under huge pressure includes complex operations. The pressure increases by 14.5 psi for every 33 feet and there are major risks and dangers associated with high pressures and low temperature and visibility. Moreover, extreme weather conditions and strong variability in ocean's direction, strength, vertical shear, periodicity and wave heights increase load on all materials and fatigue in the long and medium term (Rhodes, 2010). In addition, obtaining images of rock and salt is an extremely difficult process during operation. Further, contributed by Vinogradov and Amaduobogha (2014), environmental costs of offshore explorations and productions add to the challenges already being faced by the offshore drilling industry as these costs result from accidental pollution, operational pollution and offshore sources' decommissioning and decommissioning is a major to the industry and government, both, in terms of economic challenges and environmental issues.

2.5 Importance of Local Capacity Development in Offshore Drilling

According to MOTP (2018), the importance of capacity building can be seen as recognition of potential effects that can be both negative and positive and it can assist in identifying gaps in institutional capacity, regulations and public consultation mechanisms. Capacity building can strengthen social and environmental sustainability of the gas and oil sector and can provide a more transparent comprehension of social and environmental regulations. It can also strengthen a country's ability to solve problems of offshore drilling of oil and gas (MOTP, 2018). Capacity development can help in identifying where training in the management of oil and gas sector is required and in recognising the capacity of stakeholders including local communities, at the local and central level in order to solve controversies between gas and oil activities in onshore and offshore locations. Further added by Rochette and Wright (2015), the effective implementation of capacity development programme can enforce regulations, and can control and monitor the offshore activities

development. Similarly, UNEP (2017) states that capacity building can enhance communication and collaboration between civil society, contracting parties, non-governmental organisations, private sectors, municipal authorities and local governments.

Furthermore, capacity development can assist in developing guidelines for environmental management of offshore drilling of oil and gas. These guidelines can be based on feasible exercises and involves the support of other nations and partners that are already involved in gas and oil development in order to implement and conduct a strategic assessment of environmental and social sustainability of gas and oil (UNEP, 2017). The strategies of capacity development can ensure environmental and resource management, safety, governance and data management for offshore drilling development. However, according to Amenshiah (2019), the capacity development of human resources in offshore drilling sector can develop their skills and enhance training of human resources.

2.6 Factors Associated with Local Capacity in Mitigating the Offshore Drilling Challenges

According to the study of Kobusingye and Omvia (2015) for the development and improvement of the sector, there is need to assess those critical factors that influence significantly to that particular sector. Therefore, the study of Ahmad, Farrukh, and Nazir (2015) highlight that the factors associated with local capacity development are the organisational culture, individual factors, and resources. Similarly, the study of Ramzali, Lavasani and Ghodousi (2015) highlights that the process of offshore drilling is also dependant on rules, regulations, and organisational behaviour. Furthermore, the study of Bilgili, Kedia and Bilgili (2016) suggests that the resources are considered as an important factor in the development of local capacity. Moreover, the study of Bloomfield et al. (2018) discusses that factors of local capacity are associated with the mechanisms related to laws,

regulations, and motivations that influence the behaviour of individuals or operations of an organisation.

The study of Punzo et al. (2017) mentions that different NGOs, governments, and professional organisations have developed certain initiatives for the prevention and mitigation of negative impacts caused by offshore drilling. Staff development is considered as a major factor that is associated with the local capacity development in the oil and gas sector (Kark et al., 2015). Staff development must be intensified to improve the processes of offshore drilling. Furthermore, training, planning, and management of local development is another factor that can improve the offshore drilling operations. According to the study of Chenghua (2016) training and management of local development at a government level can strengthen the human capacity. Staff audit is another factor that is responsible for mitigating the challenges of offshore drilling. Therefore, by conducting staff audit and determining areas for improvements by identifying the shortfalls and excess capacity can effectively mitigate challenges of offshore drilling (Amenshiah, 2019). Similarly, recruitment of qualified persons suitable for the improvement of staff operations can be considered as a major factor limiting the challenges associated with offshore drilling operations (Cordes et al., 2016). Furthermore, by identifying the necessary information and knowledge from the past experiences can enable the offshore drilling to operate with safety and remove challenges that might occur in the future. However, the study of Ablo (2015) argues that the process of local capacity development for offshore drilling has not been institutionalised.

The factors of local capacity associated with organisational culture are can be used to mitigate the challenges related to offshore drilling. According to the study of Cordes et al. (2016) factor of system dependency is a key aspect in the offshore drilling processes which is often based on organisational behaviour. Therefore, at an organisational level, local capacity can be developed according to the situations and environment surrounding the offshore

drilling operations Ramzali et al. (2015). Therefore, the factor of organisational culture for local capacity can ensure the mitigation of challenges associated with offshore drilling and its activities. Furthermore, factors of local capacity for the improvement of offshore drilling operations can be associated with the role it performs in the local system and the capability to handle change for effective performance.

2.7 Challenges for Local Capacity Development in Facilitating Offshore Drilling

According to the study of Chenghua (2016), one of the most crucial factors faced in the capacity development for offshore drilling is the capacity of the location or the environment of the offshore drilling process to meet the capacity development goals. Similarly, the study of Rui et al. (2017) mentions that capacity development in many poor environmental conditions often fails, despite increased financial funding that is required for the development of local capacity. According to the study of Vincent and Stephen (2015) capacity development is considered a major challenge due to increased funding for technical cooperation and capacity building. Furthermore, the study of Bilgili et al. (2016) also mentions that capacity development processes in the developed regions face challenges related to the training and development of individuals to perform drilling operations, but the challenges are often limited and are dependent on the competency level of the individual. However, according to the study of Hagelsteen and Burke (2016), the local capacity building in developing or underdeveloped nations is challenging for the processes of offshore drilling which is often caused due to weak local ownership and lack of appropriate development methods for local capacity. According to the study of Kark et al. (2015) different sets of actions that are linked with offshore drilling present various challenges associated with the outcomes of local capacity building.

The study of Ovadia (2016) suggests that only limited sectors of oil and gas have initiated local capacity development for the improvement of their processes and the majority of offshore drilling processes made no efforts in creating sustainability in their processes. The study of Rui et al. (2018) mentions that local capacity building and development require a proper understanding of the skills, knowledge, and education to create sustainability in the offshore drilling operations. Therefore, the study of Kirat (2015) highlights that providing education to the workforce in developing countries for offshore drilling is challenging for capacity development. Furthermore, poor organisational culture, lack of resources, the balance of power are also considered as a challenge for local capacity development in the oil and gas sector (Punzo et al., 2017).

2.8 Literature Gap

According to the study of Cordes et al. (2016), offshore drilling processes require improvement in its operations and sustainability for its workforce. Furthermore, the oil and gas industry is also known for its major contributions in the economies of large scale (Ovadia, 2016). Therefore, the gap in the literature identified in this study is that the previous researches effectively mention the process and impact of offshore drilling, but the information regarding the local capacity development for the mitigation of challenges faced during offshore drilling is limited. Due to the research area being diverse and demanding an organised approach adequate research is required for the mitigation of challenges that are encountered during offshore drilling. Furthermore, a lack of awareness among oil and gas companies is also prevailing because of a significant gap in the literature (Mirimoghadam and Ghazinoory, 2017). Similarly, the gap present in the literature is considered as significant because of increasing environmental repercussions caused by offshore drilling and the need to develop appropriate local capacity to mitigate such challenges.

2.9 Theoretical Framework

The study applies the use of the theory of change. According to the study of Mayne (2015) theory of change is based on the outcomes which are developed from the critical thinking, assessment, and application of different initiatives and platforms that are proposed to assist the change in its framework. Study of Douthwaite and Hoffecker (2017) also mentions that theory of change is actively applied for the international development programs by the majority of government, development agencies, civil organisations, and internationally known non-governmental organisations that are created to support the outcomes of development and capacity building in different industries and sectors. In the case of this study, the theory of change is related to capacity building and development in the process of offshore drilling. The theory of change can be considered relevant to the study because the process of offshore drilling has an impact on the political, social, and economic conditions of a country that requires change.

According to the study of Hayes (2018) for the improvement in a certain sector, the factors that are affecting change are considered as essential. According to the study of Capeto et al. (2017) for the strengthening of the offshore drilling, process change is required which can be implemented through local capacity development. Furthermore, the study of Chenghua (2016) also highlights that local capacity development performs an integral role in the improvement of operations in any institution or a sector. Similarly, the study of Li et al. (2016) mentions that offshore drilling in the oil and gas sector faces different challenges associated with the economy, trust, and sustainability. Similarly, Kark et al. (2015) also state that the drilling operations in the offshore sector are considered as challenging for the workers and staff due to increased exposure to the harsh environment in the remote areas. Therefore, the study of Rui et al. (2017) discusses that for the efficient drilling operations at

the offshore sector, skilled and trained professionals from a wide range of backgrounds are required for improved local capacity. Therefore, by applying the theory of change for the local capacity development in the oil and gas sector will enable the sector to improve resources, finances, project development, and policies for offshore drilling.

2.10 Comparitive analysis

Comparative analysis is different from non-comparative investigation, in that it tries to reach towards a conclusion that is ahead of single cases. It provides an explanation of any differences and similarities that are present between the analysis of the objects and the relationship between the objects against their contextual back ground (Schneider and Wagemann, 2012). Comparative analysis encompasses many essential, strongly closely linked operations. More specifically, comparative analysis allows for a better understanding of one's own social structure by contrasting its familiar structures and regimens with those of other structures (Legewie, 2013).

Comparison increases our knowledge of other structures, traditions and trends of reasoning and behaving, thereby throwing fresh light on our own political relationship frameworks and enabling us to objectively contrast them with those of other countries (Thiem and Dusa, 2012). Comparison makes it possible to evaluate a hypotheses in various situations and to determine the nature and importance of such phenomena, thereby leading to the development of widely applicable theory(Thiem and Dusa, 2012). Among these general benefits, the analogy often has unique scientific benefits (Schneider and Wagemann, 2012). In order to take full advantage of these benefits, it is important to compare the concepts of study on the basis of a specific theoretical context and to use similar conceptualizations and methods to do so. Comparative research directs the emphasis on the causal importance of the social framework for communication outcomes and seeks to explain whether the structural context forms contact processes significantly in various environments(Legewie, N., 2013).

2.11 Chapter Summary

The literature review of this study is based on the area of research which focuses on the role of local capacity development in mitigating the challenges faced in offshore drilling. Therefore, the literature review provides a thorough introduction regarding the research area and discusses the concept behind local capacity development. Furthermore, the literature review provides benefits associated with the local capacity development and discusses the challenges faced in the offshore drilling operations of oil and gas. The chapter of the literature review also describes the importance of local capacity development in offshore drilling. The factors associated with local capacity in mitigating offshore challenges are also discussed in detail. Furthermore, the literature review also provides details regarding the challenges for local capacity development in facilitating offshore drilling. The literature also briefly discusses the literature gap present in the research and theoretical framework appropriate for the study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The study of Saunders and Bezzina (2015) highlights that research methodology is known as the structure of logical theories that are used to conduct research or the foundation for the research. Furthermore, according to the study of Mackey and Gass (2015) research methodology in research is effectively used to justify the choices adopted by the researcher and describes the different paradigms, designs, and approaches appropriate for the study. Therefore, the research methodology of this study highlights the practical applicability of each approach for this study. This chapter of methodology provides a detailed outline of different research methods that were adopted in the research. Furthermore, it provides information regarding the sampling size and techniques used in the study. Moreover, the research also provides justifications for the research philosophy, approach, and design that were suitable for the study. Similarly, the chapter of methodology also discusses the data collection techniques used in the study and methods used for the analysis of data. Research Limitations and ethical considerations that occurred in the study are also discussed.

3.2 Research Philosophy

The study of Saunders et al. (2015) mentions that the research philosophy is known for dealing with the foundation, type, and improvement of knowledge in research. The same author mentions that research philosophy is also considered as the system of belief for the techniques of data collection, analysis, and use of data. Therefore, for this study, the researcher adopted the use of interpretivism philosophy. According to the study of Pham (2018), the philosophy of interpretivism enables the researcher to accurately interpret the fundamentals of the study which results in the integration of the human interest into research. However, the study of Rosenberg (2017) argues that the major disadvantage of interpretivism

is associated with its subjective nature which results in bias from the researcher. Therefore, the primary data generated in the interpretive researches cannot be effectively generalised due to the data being impacted by personal views and values. However, the use of interpretivism philosophy was effective for this study because it enabled the researcher to adopt a naturalistic approach for the collection of data through interviews.

3.3 Research Approach

According to the study of Saunders and Bezzina (2015) research approach is known as a strategy and process that involves different steps of assumptions associated with the comprehensive methods to collect, analyse, and interpret data. Furthermore, the nature of the research problem is also essential in determining the approach suitable for the study. Therefore, the research approach suitable for this study was the inductive approach. According to the study of Sik (2015) inductive approach is known for contributing to the development of different theories and generalisations. Similarly, the study of Liu (2016) also mentions that in an inductive approach identified evidence are used to produce untested assumptions. Furthermore, the use of the inductive approach allowed the researcher to develop practical generalisations for the identification of primary relationships through the progress of this research. Therefore, the use of the inductive approach enabled the researcher to appropriately adjust the direction of the study after the initiation of the research process.

3.4 Research Design

The study of Saunders and Bezzina (2015) mentions that the research design is known as the choice between the qualitative and quantitative research methods for the collection and analysis of data. Therefore, for this study, the researcher opted to use the qualitative research

design. The study of Silverman (2016) mentions that in a research qualitative data is gathered through observations, interviews, and case studies. Therefore, in the case of this research qualitative research design was appropriate because the study used interviews to collect data. Furthermore, according to the study of Anderson et al. (2018) mentions that unlike quantitative data, the qualitative approaches are not bound to the limitations of numbers and stats. Therefore, in this study, the qualitative design provided the researcher with a flexible approach to adapt according to the responses of the participants.

3.5 Data Collection Method

The study of Saunders and Bezzina (2015) mentions that research data is often collected by using two types of method known as primary and secondary methods of data collection. Therefore, for this study, both primary and secondary methods of data collection were adopted by the researcher. The researcher made sure to use the secondary data for the literature review and primary data for the interviews of the participants. According to the study of Thomas (2015) primary method of collecting data enables the researcher to solve certain problems in the research and create better precision with the existing data. Similarly, the study of Johnston (2017) states that primary data often require samples in large quantity to conduct reliable research. However, the primary method of data collection was suitable for this research because it enabled the researcher to gain accurate and relevant information through interviews regarding the role of local capacity development in mitigating the challenges faced in the processes of offshore drilling. Secondly, the research used qualitative comparative methods to provide a comparative analysis of the data that was obtained. This was done by a focused comparison of previous studies to compare the advantages and disadvantages that are attached to local capacity development in mitigating challenges faced in the process of offshore drilling.

3.6 Data Analysis

The method of comparative analysis was applied to analyse the secondary data of this research. According to the study of Clarke, Braun and Hayfield (2015) comparative analysis are considered as the most effective method to execute the secondary research because of its ability to analyse the wide-ranging of content and ideas that are pertaining to the research phenomenon. The same author also mentioned that comparative analysis is more suitable for the analysis of qualitative data because it can conduct other forms of qualitative analysis. Furthermore, the study of Vaismoradi et al. (2016) mentions that the comparative analysis is useful in providing a profound understanding of the research through comparative analysis. The use of secondary data was also suitable for the study because it enabled the researcher to adopt flexibility in the analysis of data.

3.7 Research Limitations

The research faced a certain level of limitations because the data associated with the implementation of local capacity development in the field of offshore drilling is limited. Therefore, the lack of prior studies in the area of research caused limitations resulting in a narrowed scope of the study. Furthermore, the use of secondary data for the literature also posed some limitations because the researcher constantly had to make sure that the data used in the literature is not obsolete and is derived from authentic sources. The research also faced limitations in the secondary data because of the availability of the data. Similarly, the research was also qualitative which presented limitations linked with the consumption of time and limitations associated with the interpretation of the study. Difficulty in the investigation of the qualitative data also occurred due to a lack of statistical representation and verification.

3.8 Ethical Considerations

The researcher also specifically focused on eliminating or removing the bias that might occur during the research. The researcher used secondary sources that are trustworthy and authentic to study the role of local capacity development in offshore drilling. Effective measures were taken regarding the use of secondary sources by properly referencing the material used in the research. Furthermore, findings and content of the research were supposed to present authenticity, therefore, the researcher made sure that the content of the study is not plagiarised.

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