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# **Examining Leaders' Strategic Role at Oil and Gas Organisations Facing Great Fluctuations in the Price of Oil: Evidence from Qatar**

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## **Abstract**

The aim of this study is generating new strategic models, tools, and concepts that are uniquely relevant to senior leaders of organisations operating in the oil and gas industry dealing with major fluctuations in oil prices. To achieve this aim a secondary data were analysed and 15 personal semi-structured interviews were conducted with senior leaders from different oil and gas organisations in Qatar. Those organisations operate within different areas (upstream, midstream, downstream, and supporting organisations) of the Qatari oil and gas supply chain. Data analysis follows the steps of thematic analysis. The analysis concludes that the fluctuations in oil price are explained by the law of supply and demand. Moreover, Respondent's answers show that oil-based organization cope with the fluctuation in oil prices through several decision making strategies. These strategies are: flexible strategic decisions, manage decisions adaptively, formulate a proactive decision strategy, reduce time in decision-making process, knowledge and education about all possible choices, avoid unnecessary risk, taking risk step by step, clarify uncertainty and determine the worst-case scenario and set SMART goals and objectives. This study recommends that senior leaders must adopt short-term rather than long-term strategic decisions. Furthermore, flexibility in strategic planning and decision-making is essential to dealing with the high uncertainty surrounding the oil and gas industry.

**Keywords:** fluctuations in oil price, leadership, law of supply and demand



## **Introduction**

Various industrial sectors have experienced novel challenges over the past century (Stearns, 2018). One of the most affected industries is oil and gas, as it was impacted by those changes linked with the modern age (Hiatt, et al., 2015). Bondia, et al. (2016) argue that the oil and gas industry went through a major change in the 20th century. In particular, oil and gas organisations suffered from big shifts in prices internationally, as well as a substantial change in the global demand for oil goods. The great fluctuation in oil prices represents a serious challenge for oil and gas organisations. It increases instability and uncertainty for these firms and affects their effective strategic planning and sustainability. However, previous studies have investigated the impact of the fluctuation of oil prices on other industries. A few investigations have assessed the influence of the fluctuation of oil prices on oil and gas organisations and specifically, their strategic planning abilities (Al-Maamary, et al., 2017; Sumbal, et al., 2017; Parveen, 2018). Therefore, this study was developed to investigate the strategic role of senior leaders of oil and gas organisations of governing their organisations to minimise the shocks to their operations as a result of oil price fluctuations.

## **Problem Statement**

The oil industry plays a significant role in oil-dependent nations, such as Qatar. Oil accounts for 56% of Qatari government revenues and 92% of the nation's export earnings. When the price of crude oil rose from \$28.66 US to \$96.94 US per barrel, Qatar's economy grew by 18% in 2007, compared to 3.9% in 2000. Within the same period, the economic prosperity enjoyed by Qatari citizens and industries as a result of high oil prices resulted in Qatar having the highest income per capita in the world (Vohra, 2017). On the other hand, following the oil price fluctuations that came after 2008, many Gulf Corporation Council (GCC) countries experienced budget deficits (Naifar & Al Dohaiman, 2013).



According to Parveen (2018), changes in oil prices have a significant effect on both the macroeconomics and microeconomics of a country. Several lines of research have investigated the impact of high fluctuations in oil prices. However, the research addressed the impact from a macroeconomic perspective by looking at the effect of oil prices on the entire import economy of a country. A few studies have evaluated the effect of oil price fluctuations from a microeconomics perspective and how organisations and management cope with them. Accordingly, performing research to determine how senior leaders can govern their organisations to minimise shocks to their operations that result from fluctuations in oil prices is paramount. Therefore, this study was developed to fill this research gap through studying the impact of oil price fluctuations from a microeconomic perspective. The main question of this study is" **how organisations and management can cope with oil price fluctuations in Qatar?"** Which also significantly contributes to the prosperity of a country macro economically.

## **Literature Review**

To derive the development and profitability of oil and gas projects, Kotts and Losz (2018) pointed out that organizations focus on strategic management, including operational efficiency, portfolio management, sustainability, and financial management. Through strategic management, firms are able to maximize their performance and fully utilize their resources to achieve strategic goals and objectives (Kotts & Losz, 2018).

The oil and gas industry (also known as the petroleum industry) is one of the largest sectors across the globe. Sorkhabi (2017) noted that oil and gas account for the largest share of the world's energy consumption and are vital to various industries, including the transportation sector. The oil and gas industry is made up of upstream, midstream, and downstream operations. Upstream operations focus on E&P (Exploration and Production) of oil and gas, including activities like searching for onshore and offshore deposits and drilling for raw materials (Sorkhabi, 2017). Midstream operations deal with transferring oil and gas from sites to processing plants, refining them into marketable products,



and transporting them to end users through pipelines or tankers (Sorkhabi, 2017). Downstream operations include certain aspects of midstream activities, such as converting natural gas into LNG and crude oil into petrol and jet fuel (Furman, et.al., 2017), among others.

The recent oil price decline began in 2014. Crude oil prices reached a peak of \$114 US per barrel in June 2014 and it reached \$58 US per barrel in 2018 (The Peninsula, 2017) However, this forecast did not consider the recent political tensions in the region. Political stability is important due to the need for oil-producing countries to coordinate economic policies. This is why the GCC exists and why the Organisation of the Petroleum Exporting Countries (OPEC) was founded in 1960 (Vohra, 2017). Supply and demand for oil are driven by political and economic factors. To stabilise oil prices, greater cooperation is needed between oil producers and consumers, as well as between countries in oil-producing regions. The Oxford Business Group (2015) posited that it is uncertain how a reduction in oil prices will affect Qatar's economy. Based on long-term investment in the Qatari oil sector, it has been put forth that the market will likely survive a short-term decline in oil prices with few negative consequences (Oxford Business Group, 2015). However, wider international issues, such as a slowdown of economic growth in emerging markets, combined with factors, such as the US becoming a net exporter, are likely to lead to a longer-term decline in oil prices (Oxford Business Group, 2015).

There are various theories that underlying change leadership and management based on the way they deal with change. Kotter's 8-Step Change Model is an example. Kotter's 8-Step Process focuses on how change can be initiated. It finds that anyone wanting to create change should: (1) create a sense of urgency, (2) build a guiding coalition, (3) form a strategic vision and initiatives for change, (4) enlist a group of people in favour of making the change, (5) enable action by removing barriers to change, (6) generate short-term gains, (7) sustain acceleration toward change, and (8) institute the change desired (Kotter, 1996). In other side, a field theory developed by Lewin (1946) deal with why companies are often resistant to change and how this can be altered. Lewin's force-field analysis indicates that social habits can be understood as representing inner resistance to change.



Such internal resistance must be challenged, usually by the actions of some party external to the group (Miller, 2007). This party can be compared to an environmental force or a force of nature (Miller, 2007).

As well as being a strong decision-maker, a manager needs to lead effectively. There are several ways in which a manager might exhibit effective leadership. White and Shullman (2010) thought that to be an effective leader, a manager must accept the fact that uncertainty exists. Such acceptance relies on the ability of the manager to scrutinise their actions and tap into their survival instincts. Such instincts are activated under a sort of threat from ambiguity that is likely to emerge in a global business environment (White & Shullman, 2010). Clampitt and DeKoch (2001) stated that effective leaders are wary when looking too far ahead. Hence, to lead effectively, leaders must realise when it is appropriate to postpone decision-making. Moreover, leaders need to realise that the existing order of a particular series of issues may prevent one from gaining a deeper understanding of the matter at hand.

Previously, it has been suggested that robust leaders are born leaders and that good leadership is only possible in stable environments (White & Shullman, 2010). However, research and the real, lived experience of leadership demonstrates that flexibility and the ability to cope with challenges and changes are integral factors in effective leadership (White & Shullman, 2010).

Oil and gas industries across the world are confounded by various issues, including volatile prices, disputes emanating from internal and international politics, and environmental challenges (Parveen, 2018). In order to address these challenges, it is important to have a strategist for the oil and gas industry. According to Robinson and Scott (2016), the role of a strategist is to formulate and implement strategies, including setting goals, identifying the actions required to achieve the objective, and mobilising essential resources. As oil and gas is the leading source of revenue in Qatar, the main goal of the country is to maintain its competitive edge across the globe, particularly in the supply of LNG. The strategist must focus on realising a higher level of competitive edge in oil and gas production (Robinson & Scott, 2016). According to Varnamkhasti (2017),



the Qatari nation is focusing on ramping up supply by doubling daily production of LNG to around 4 billion litres. Therefore, the strategist must mobilise all essential resources, including human capital and funds. Moreover, strategists in this sector, including managers and CEOs, must improve planning of resources, such as close coordination of the market and introduction of JIT (Just-in-Time) techniques (Robinson & Scott, 2016). Close supervision of the market, for example, must focus on evolution and trends in the existing market and emerging customers and competitors. Equally important, the strategist must ensure that the entire operation process adheres to environmental regulations (Robinson & Scott, 2016). Some of the primary environmental risks related with this sector include, pollution during extraction, processing, and transportation of oil and gas. Qatar currently faces a diplomatic dispute; consequently, strategists must also identify methods of ending the blockade and continuously informing all stakeholders of the progress.

## **Methodology**

This study examines the role of senior leaders at oil and gas organisations facing dynamic changes in oil prices. The research seeks to develop a strategic mechanism that helps organisations working in the oil and gas sector encountering uncertainty created by the change in oil prices.

To achieve the preceding goal, the philosophical position for this research was interpretivist adopted from Easterby-Smith, et al. (2012). Add up the methodological choice was qualitative using primary and secondary data. The research was carried out with face-to-face, semi-structured interviews. Interviews were the chosen method for data collection in this study due to the fact that they permit probing questions and answers that need further explanation. Unclear questions or answers can be discussed between the interviewer and interviewee. Face-to-face interviews were conducted with various senior leaders from distinct oil and gas companies in Qatar. The respondents were selected based on two non-sampling methods. The sampling process was a mix of purposeful and snowball techniques taking into consideration respondents should met the relevant standards and were eager to participate.



The data analysis followed the steps of thematic analysis developed by Braun and Clarke (2006). The analysis included familiarising data and generating codes, themes and categories. Moreover, the information gathered by the researcher for the study question was examined through inductive and deductive examination methods. Inductive examination was used by the researcher here due to the fact that it does not constitute an inflexible theory, but instead allows the researcher to discover different clarifications and therefore, understand the nature of the issue better.

To verify quality of this research outcomes, credibility, transferability, dependability, and conformability were checked. It is important to ensure the trustworthiness of the outcomes of a qualitative study (Silverman, 2013; Bryman and Bell, 2015).

The trustworthiness of this study was verified through external validity, internal validity, reliability and objectivity. Data triangulation using multiple data sources was adopted in this research. Triangulation enhances reliability, external validity, objectivity of data. Add up external validity were verified because of using several case studies and purposive sampling. In addition, a detailed research process was developed which, according to Yin (2009), would improve the research's reliability. Participant briefing was also adopted, whereby the outcome of each interview was verified with the study participants, and the main emerging themes were also shared with participants with correction actions taken when needed. Finally, a portion of the collected data and evolved themes were checked with several colleagues to ensure a true interpretation (Silverman, 2013). Objectivity of this study was checked through Use multiple sources of evidence, establish a chain of evidence, make extrapolations in a case study, and address other studies' explanations.

Using secondary data provides detailed descriptions of the study process and systematic procedures used to develop the study findings and draw a conclusion enhances study reliability (Yin, 2009).

To develop a strategic role for leaders of oil and gas organisations to face high volatility in oil prices, the findings from the primary and secondary data were collected and analysed.



The secondary data were analysed to understand the fluctuations of oil prices and to investigate the variables behind this fluctuations. While the primary data were evaluated to determine how organisations and their management cope with such fluctuations.

### **Data Analysis and Results**

A substantial volume of reliable literature, published documents, information, and positions, including those of many credible local governments were analysed. The analysis of secondary data showed that fluctuations in crude oil prices in the last two decades resulted from the political issues and the usage of new resources of energy. The effectual fluctuation of crude oil began due to Iraqi war in 2003. It increased by \$5/barrel at the same year. The price of crude oil was \$30//barrel, but it increased to approximately \$35/barrel because Iraq's global reserves and oil production decreased. A year later, due to various changes in supply and demand, the price became \$50 /barrel. In June 2006, the oil price jumped to \$79/barrel due to political tensions, such as North Korea's missile launch and the ongoing Iraqi war, as well as the Israel-Lebanon war. In the spell of the financial crisis (2007-2008), the oil prices steep declined to \$30.28/barrel. In 2009, oil prices rose to \$82 \$30.28/barrel. Because of the Arabian spring revolution in Egypt, the oil prices peaked to \$100/barrel in 2011. After that, the price of oil remained high for three years, where the range of prices was between \$90-\$120/barrel. It remained high for three years, where the range of prices was between \$90-\$120/barrel. In 2014, the price of oil reached \$62.75/barrel as a consequence of US shale oil production and the overproduction from few members of OPEC beyond their production quotas, where China and Europe requested a decrease in prices. In 2015, crude oil price became \$50/barrel. In 2018, the fluctuations in oil prices were very high. At the middle of year, the crude oil prices varied by \$6/barrel during one month. Figure 1 shows the preceding changes in the crude oil prices.



Figure 1: The Historical Fluctuations of Crude Oil Prices.

In Qatar, the crude oil price has declined by 50% for the last three years. Yet, the price of oil began rising after traders bid higher in response to the OPEC meeting in November 2017. The recent oil price decline in Qatar began in 2014. Crude oil prices reached a peak of \$114/barrel in June 2014, but declined to just \$57/barrel by February 2015. Recent estimates for Qatari oil prices by the QNB indicate that oil prices remain low. The QNB estimated that, on average, oil would be worth \$55/barrel in 2017 and \$58/barrel in 2018. It is worth mentioning that such forecasts do not consider the recent political tensions in the region.

The fluctuations of crude oil price in Qatar followed the global variation in crude oil price. The analysis of secondary data also showed the variables behind this fluctuation. The price of crude oil is exposed to many variables, the dynamics of supply and demand is the major contributor to the fluctuations in oil prices. An increase in demand with constant supply pushed oil prices higher and an increase in supply with constant demand pushed oil prices lower. There is seven factors causing these dynamics include: The successful exploration and commercial production of oil, Growth of the international economy, Advanced technology, Monetary and fiscal policies, OPEC policy, Geographic political issues and Appreciation of the US dollar.

An increase in demand occurred due many factors.



Growth in international economy especially growth in energy-intensive industries drives demand of that energy, which increases the price of oil. However, when the supply increased due to the emergence of new sources of energy which decreases the demand for oil as the main source of energy, the price were reduced. Moreover, from 2010 to 2014, a successful exploration and commercial production of alternative sources increased the supply which has shifted the value of conventional oil downhill. Advanced technology also enhances supply in two way. Frist, advanced technology has permitted the extraction of oil in a more efficient manner and most of the economically unfeasible oil wells became more feasible. Second, advanced technology has helped discover new oil wells and increase daily production. Appreciation of the US dollar cause a supply excess and downward price shift. Appreciation of the dollar results in more expensive oil for importing countries outside the US, meaning they have to pay higher prices. This could lead to sluggish demand for oil.

Geographic political issues results in unsteady dynamics of supply and demand. History features evidence of geopolitical proceedings influencing the value of crude oil. Such proceedings normally lead to supply disruption, output loss, and inefficiency in the functioning of markets, resulting in oil price shifts. Monetary and fiscal policies of several nation has also unstructured effect on crude oil price. It affect the flow of capital, investment, and demand for oil, all of which affect the value of crude oil on the international market.

The effect of the dynamics of supply and demand could be controlled by OPEC policy. OPEC nations represent more than 30% of the international crude oil demand. OPEC policy on oil production plays a major part in the balancing of demand and supply. A choice to cut production may help prices move upward and vice versa. Figure 2 shows the effect of OPEC spare capacity on oil prices fluctuation.

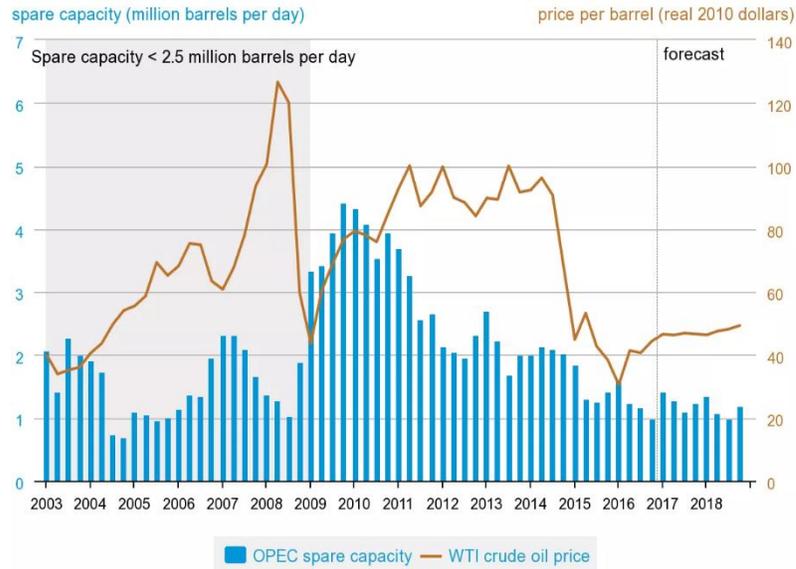


Figure 2: OPEC Production Capacity and Oil Prices Fluctuations.

To determine how organisations and their management cope with the fluctuation of oil prices and the impact of crude oil prices fluctuation from strategic management perspective, the data collected through 15 face-to-face interviews were analysed. The oil and gas industry consist of fully integrated organisations that are shaping the industry supply chain, which consist of upstream, midstream, downstream, and supporting organisations. Senior leaders from several oil and gas organisations in Qatar with different industry supply chain categories were interviewed.

The job description for respondents according to their organization categories were as following: A) Upstream organisation (exploration, field development, and production operations): one executive vice-president, one operation manager and one supply chain manager. B) Midstream organisation (transportation, processing, storage, and distribution): one executive vice-president, one operation manager and one procurement manager. C) Downstream organisation (manufacturing, refining and petrochemicals, wholesale, and marketing): one executive vice-president, three operation manager,



one sales and marketing manager and one purchasing manager. D) Support organisation by providing related services and equipment: one executive vice-president, one operation manager and one director of R&D.

According to interviews, the impact of oil prices fluctuations relates to the country, organization and leaders and managers. This fluctuation impacts the whole country since Qatar is an oil export country rely entirely on oil exports for its economy. Additionally it effects the production cost of the organization and the psychological of senior leaders and managers. Managers frequently make strategic decisions that impact the very core of the organization which is a daunting process. The significant challenges to oil and gas organizations and the management team results from the nature of prices changing process. Changes in oil prices may be actual or potential. Moreover these changes is surrounded by high level of uncertainty. According to the data analysis, there are four areas of uncertainty affecting managers' strategic decisions that result from dynamic fluctuations in oil prices. First, there is uncertainty regarding whether the price of oil will change. Second, there is uncertainty regarding how oil prices will change, (i.e., whether the oil price will increase or decrease). Third, there is uncertainty in terms of the effect of oil price changes on the organisation. Finally, there is uncertainty with respect to how to respond to a change and how the organisation should react. This leads to a situation where it is very difficult for the manager to choose alternatives and forecast the impacts of environmental changes on their organisations.

From other perspective, the fierce competition in the oil market and the emergence of alternative and renewable sources of energy have increased the influence of changing oil prices on oil-based organisations. The increase in the oil prices may provide an opportunity for alternative energy sources to become cheaper and more effective than oil. For example shale oil can be good alternative when the oil price is among \$30 to \$60.

Whether the price of oil increased or decreased, it posed a threat to organisations. The inability to predict changes in oil prices and the effects of these changes on the organisation,



along with the difficulty in selecting alternatives as a best response to such changes reflect the high level of uncertainty perceived by managers, which has an impact on the estimated operational performance.

To mitigate the impact of low oil prices since 2014, oil and gas organizations in Qatar have taken a number of steps to reduce costs and stabilise their positions in the global market. These steps could be adopted at any time to deal with the fluctuation of oil price. These actions are:

- **Downsizing:** A number of senior leaders at Qatar's oil and gas organisations were forced to cut 30% of their manpower due to low oil prices.
- **Outsourcing:** Focusing on core activities and outsourcing non-core activities to professional organisations with the goal of reducing the cost of operations.
- **Organisation Restructuring:** Senior leaders try to create a sense of urgency by realigning their operations and business support functions. They change their business models from a decentralized organisation to one that uses centralized organisations to help increase control and reduce expenses.
- **Mergers and Joint Venture Projects:** A merger involves combining two companies into a single larger company to reduce overhead costs and enhance coordination. Also, joint ventures are arrangements where a number of companies will work to gather and share recourse to diminish the cost of investment.
- **Supply Chain Integration:** A coordinated approach from all parties within the industry is needed to meet new challenges within the industry.
- **Advanced Technology:** Advanced technology could bring enormous gains in terms of efficiency and productivity.
- **Flexible Contracts:** Engage with importing countries with more flexible contracts that are less than 10 years in length.

Based on the previous analysis for secondary and primary data. A strategy role for senior leaders and managers developed. This strategy includes eleven approaches. These approaches split into three categories based on the responsible authorities.



These categorizes are: leader- related approach, organization-related approach and market-related approach. Taking into consideration, the efficiency of the senior leaders' roles and their capability of fast, reactive and effective proactive strategic decisions, the following approaches for managing decision-making in condition of high uncertainty were recommended from respondents to mitigate the impact of oil prices fluctuation. According to the responsible authority for execution category, the approaches are:

- **Organization-Related Approach:**

1. **Flexible strategic decisions:** The ability of an organisation to respond to major changes in the external environment by committing necessary resources.

- **Leader- Related Approach:**

2. **Flexible strategic decisions:** The ability of an organisation to respond to major changes in the external environment by committing necessary resources.
3. **Manage decisions adaptively:** Increase monitoring and appraisal for decision-making during uncertainty. Readily adapt as new knowledge is uncovered.
4. **Reduce time in decision-making process:** Take small steps leaving a secure way back if needed.
5. **Knowledge and education about all possible choices:** By analysing past events and gaining more information from different courses of action, this will lead to a reduction in anxiety and help make a firm decision.
6. **Avoid unnecessary risk:** When the environment is full of uncertainty, defer risks that are under one's control.
7. **Taking risk step by step:** Do not take an extreme amount of risk that can lead to confusion of management.
8. **Clarify uncertainty and determine the worst-case scenario:** To understand and have a full picture of the possible outcome from each chosen scenario, create a strong basis for each and every decision made.



9. **Set SMART goals and objectives:** The underlying premise of effective decision-making is that decision-makers know the organisation's specific needs and how to meet these needs.

- **Market-Related Approach:**

1. **Formulate a proactive decision strategy:** Generate initiatives to address changes in market needs.

## **Conclusion**

It should be remembered that the main goal of this study is generating new strategic models, tools, and concepts that are uniquely relevant to senior leaders of organisations operating in the oil and gas industry dealing with major fluctuations in oil prices.

Based on the study findings, the law of supply and demand explained the fluctuations in oil prices. This means that a drop-in oil price is explained by the lag between supply and demand that results from increasing the production and supply of oil, as well as the emergence of new sources of energy. Additionally, the study concludes that the high instability of oil prices has dramatically added to the great uncertainty that already exists in the oil and gas industry, which significantly influences the ability of senior leaders to make informed strategic decisions. Hence, the role of senior leaders in the decision-making process is guided by the search for alternative solutions to deal with these major uncertainties.

According to this study, senior leaders can carry out several actions in order to face changing in oil prices. Some of these actions are externally implemented while others are carried out inside the organization. Downsizing, outsourcing, organization restructuring, mergers and joint venture projects and supply chain integration are strategic activities which depend on eliminate some work areas of organization. Other strategic activities such as advanced technology and flexible contracts need changing in organization policies, regulation and improving organization tools related to execute its work.

Regarding decision-making strategies, this study concluded that eleven techniques can be adopted to deal with the high uncertainty surrounding the oil and gas industry.



These techniques varies according to its responsible authority for execution. Based on these techniques, senior leaders are the essential part in dealing with the fluctuation of oil prices. The eleven techniques for managing decision-making in conditions of uncertainty are: flexible strategic decisions, manage decisions adaptively, formulate a proactive decision strategy, reduce time in decision-making process, knowledge and education about all possible choices, avoid unnecessary risk, taking risk step by step, clarify uncertainty and determine the worst-case scenario and set SMART goals and objectives.

### **Recommendations**

Impact of fluctuations in oil prices on oil-based organization can be mitigated through an appropriate response to these fluctuations by senior leaders. Senior leaders, must invest in flexibility so there is an allowance of their organisations to adapt quickly as prices change and markets evolve. They also have to select the best alternative among many strategic activities in accordance to the circumstances of the situation. Senior leaders need to balance the effect of oil price fluctuations with more short-term considerations. Additionally, oil and gas organisations still must renew their resource bases for long-term sustainability rather than resetting the cost-base of operations. This study also recommend that the Scenario-building is an effective technique to deal with uncertainty. Scenario-building can help provide a vision of future events precise enough to capture changes in oil prices. Moreover different kind of analysis should be carried out to identify and evaluate a variety of strategic options.

Finally, researchers usually investigate the impact of fluctuation of oil prices on organization from the economic perspective. This study filled the gap a in the literature and added to the existing knowledge surrounding the oil and gas sector. It investigates the impact of fluctuation of oil prices on the oil-based organization from leadership perspective. The qualitative approach was conducted in this study. Generalisability is one of the main limitations of qualitative research, he main limiting issue was the small sample size. Although the participants consisted of 15 respondents, which was adequate for this study, a larger sample size may have led to additional insights. Moreover, research bias is a key concern in qualitative research.



Additionally, the quality of the data gathered in qualitative research is highly subjective and the findings' rigidity is more difficult to assess and demonstrate. Thus, future research could be developed based on a quantitative design with data collected from a larger sample.

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