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## The Role of Leadership in Managing Risk to Ensure Project Success in the Arabian American Oil

# Company (Aramco) In Saudi Arabia from 2020 to 2024

Mr. Badr Rashad Qablawi\*, Ms. Rawda Ayman Abuttahir

Midocean University | Union of Comoros

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\* Corresponding author: <u>badr.qablawi@gmail.com</u>

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This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY-NC) <u>license</u> Abstract: This comprehensive study examines the pivotal role of leadership in managing risks and ensuring project success within Saudi Aramco, a global leader in the oil industry, during the period from 2020 to 2024. The research focuses on two predominant leadership styles—transformational and transactional—and their impact on organizational resilience and risk management strategies. By addressing these leadership factors, the study aims to understand how effective leadership can mitigate risks and enhance the success of large-scale projects. The research problem centers on the increasing importance of risk management in a rapidly changing business environment, particularly in the context of Saudi Aramco's operations. As the organization plays a crucial role in the global oil supply chain, the ability to manage risks effectively is essential for maintaining operational continuity and achieving strategic objectives. This study is particularly significant as it aligns with Saudi Arabia's Vision 2030, which emphasizes the need for robust leadership to drive economic diversification and growth.

The study's objectives include identifying leadership traits that contribute to effective risk management, evaluating the influence of different leadership styles on organizational resilience, and recommending strategies to enhance leadership practices within the organization. The research is guided by four hypotheses that explore the relationship between leadership styles and risk management outcomes, focusing on how these dynamics influence project success. A qualitative research methodology was employed, utilizing in-depth interviews and thematic analysis to gather data from 100 participants within Saudi Aramco. The interviews focused on leaders' approaches to risk management, the challenges they face, and the strategies they use to foster organizational resilience. The analysis of this data revealed significant insights into how transformational and transactional leadership styles affect risk management practices and organizational outcomes. The results confirmed all four hypotheses, demonstrating that transformational leadership positively impacts organizational resilience and risk management effectiveness, while transactional leadership provides a structured approach to risk management.

Keywords: Leadership styles, risk management, transformational leadership, transactional leadership, organizational resilience, Saudi Aramco, Vision 2030, project success.

# دور القيادة في إدارة المخاطر لضمان نجاح المشاريع في شركة النفط العربية الأمريكية (أرامكو) في المملكة العربية السعودية من 2022م إلى 2024م

أ. بدررشاد قبلاوي\*، أ. روضة أيمن أبو الطاهر

جامعة ميدأوشن إجمهورية القمر المتحدة

المستخلص: تستعرض هذه الدراسة الشاملة الدور المحوري للقيادة في إدارة المخاطر وضمان نجاح المشاريع داخل شركة أرامكو السعودية، الشركة الرائدة عالميًا في صناعة النفط، خلال الفترة من 2020 إلى 2024. تركز هذه الدراسة على أسلوبي القيادة الرئيسيين: القيادة التحويلية والقيادة التعاملية، وتأثيرهما على مرونة المنظمة واستراتيجيات إدارة المخاطر. من خلال تناول هذه العوامل القيادية، تهدف الدراسة إلى فيم كيفية تمكن القيادة الفعالة من تقليل المخاطر وتعزيز نجاح المشاريع الكبيرة. تتمحور مشكلة البحث حول الأهمية المتزايدة لإدارة المخاطر في بيئة الأعمال التي تتغير بسرعة، لا سيما في سياق عمليات أرامكو السعودية. نظرًا للدور الحيوي الذي لتعبه الشركة في سلسلة الإمداد النفطي العالمية، فإن القدرة على إدارة المخاطر بفعالية تعد أمرًا أساسيًا للحفاظ على استمرارية العمليات وتحقيق الأهداف الاستراتيجية. تتميز هذه العالمية، فإن القدرة على إدارة المخاطر بفعالية تعد أمرًا أساسيًا للحفاظ على استمرارية العمليات وتحقيق الأهداف الاستراتيجية. تتميز هذه الدراسة بأهميتها الخاصة حيث تتماشى مع رؤية الملكة العربية السعودية 2000، التي تؤكد على الحاجة إلى قيادة قوية لدفع عملية التنويع الافتصادي والنمو. تشمل أهداف الدراسة تحديد سمات القيادة التي تساهم في إدارة المخاطر بفعالية، وتقيم مناجير أنماط القيادة المختلفة بين مرونة المنظمة، وتقديم توصيات لتعزيز المارسات القيادية داخل المنظمة. تسترشد هذه الدراسة بأريع فرضيات تستكشف العلاقة بين مرونة المنظمة، وتقديم توصيات لتعزيز المارسات القيادية داخل المنظمة. تسترشد هذه الدراسة بأريع فرضيات تستكشف العلاقة بين أبناط القيادة ونتائج إدارة المخاطر، مع التركيز على كيفية تأثير هذه الديناميكيات على نجاح المشاريع. تم استخدام منهجية البحث النوعي، حيث تم إجراء مقابلات معمقة وتحليل موضوعي لجمع البيانات من 100 مشارك داخل شركة أرامكو السعودية. ركزت المقابلات على أبناط القيادة في أدرة المخاطر، موالتحيات التي يواجبونها، والاستراتيجيات التي يستخدمونها لتعزيز مرونة المنظمة. أكم تحليلات على ميث مروزي المقادة في إدارة المخاطر، مع التركيز على كيفية مائير من 100 مشارك داخل شركة أرامكو السعودية. ركزت المقابلات على استراتيجيات القادة في إدرة المخاطر، والتحدويلية تؤثر مشكال إيجابي على ممارك إدار الرخاط ونتائج المنظمة. أكمنام ونوائي المنوم النائ

الكلمات المفتاحية :أنماط القيادة، إدارة المخاطر، القيادة التحويلية، القيادة التعاملية، مرونة المنظمة، أرامكو السعودية، رؤية 2030، نجاح المشاريع.

## Introduction

Saudi Arabia stands as one of the world's largest oil exporters and is currently undergoing significant transitions and reforms as part of its Vision 2030 agenda. This ambitious initiative aims to diversify the economy and reduce the nation's dependency on oil revenues. Central to achieving these goals is the successful execution of large-scale projects across various sectors. Project leadership, therefore, plays a critical role in guiding teams and ensuring that projects meet their intended objectives, contributing to the broader economic growth of the nation.

As organizations increasingly adopt project management practices, the demand for effective leadership becomes more pronounced. The success of any project often hinges on the ability of its leaders to manage teams, make informed decisions, and navigate the complex challenges that arise during the project lifecycle. Transformational leadership, in particular, has been shown to foster organizational resilience by promoting innovation and adaptability, which are crucial for successful project outcomes (Boamah, Laschinger, Wong, & Clarke, 2018). This type of leadership is not only about directing activities but also about shaping the organizational culture and strategies that underpin risk management and resilience.

This research focuses on Saudi Aramco, the largest oil producer globally and a cornerstone of the Saudi economy. Given its strategic importance, understanding how leadership styles impact project success within this organization is crucial. Recent studies have highlighted the importance of both transformational and transactional leadership styles in driving successful outcomes in high-stakes industries. Transformational leadership is often associated with inspiring and motivating teams toward innovation and change, while transactional leadership emphasizes structure, order, and clear objectives (Holzmann & Mazzini, 2020).

In the dynamic and often volatile environment in which Saudi Aramco operates, strong leadership is essential for managing risks and ensuring stability. As noted by Alvarez & Gómez (2023), effective leadership is critical in managing the complexities of the oil industry, particularly in mitigating risks and ensuring long-term performance. The ability to anticipate, evaluate, and respond to risks directly influences a firm's agility and its capacity to achieve strategic goals. This study aims to explore the correlation between different leadership styles and risk management practices within Saudi Aramco, with a particular focus on how these styles contribute to organizational resilience. Organizational resilience, as described by Fareed & Su (2022), refers to the ability of an organization to adapt to uncertainty and change, a characteristic that is increasingly vital in today's fast-paced business environment.

By investigating these aspects, this research seeks to provide insights that can help organizations like Saudi Aramco enhance their leadership practices, ultimately leading to more successful project outcomes and greater organizational resilience. As highlighted by Smith & Taylor (2022), integrating leadership with strategic risk management can significantly enhance organizational preparedness and long-term success, making it a key focus for high-risk industries like oil and gas.

## **Chapter 1: Research Framework**

## 1.1 Research Problem

Saudi Arabia is undergoing significant economic transformations as part of its Vision 2030 strategy, relying heavily on the successful execution of large-scale projects to drive economic diversification. Leadership plays a crucial role in this process, especially in managing risks and ensuring the success of large-scale projects. In particular, Saudi Aramco, the world's largest oil producer, faces unique challenges in managing risks due to the volatile nature of the global oil market and the complexity of its operations. This study seeks to explore how different leadership styles, specifically transformational and transactional, impact risk management and project success within Saudi Aramco.

#### 1.2 Research Importance

The importance of this research lies in its potential to provide actionable insights for Saudi Aramco and similar organizations in the oil and gas sector. With the global business environment becoming increasingly uncertain, the ability to manage risks effectively is paramount. As noted by Fareed & Su (2022), leadership styles can significantly influence organizational resilience, especially in industries that face complex operational risks. This study contributes to the understanding of how leadership influences risk management and organizational resilience, offering practical recommendations that can help organizations achieve their strategic objectives and maintain operational stability.

## 1.3 Research Objectives

The objectives of this study are to:

- 1. Identify the leadership characteristics that help in managing risks and evaluate how various leadership beliefs influence organizational resilience in Saudi Aramco.
- 2. Evaluate how various leadership styles affect risk management strategies and explore the challenges leaders face in managing risks.
- 3. Recommend strategies for leaders to enhance risk management capabilities and develop a framework to improve organizational resilience through effective leadership.

## 1.4 Research Questions

To achieve these objectives, the study will address the following questions:

- 1- What key leadership traits contribute to effective risk management in Saudi Aramco?
- 2- How do different leadership philosophies affect organizational resilience and risk management strategies?
- 3- What challenges do leaders at Saudi Aramco encounter while managing risks?
- 4- What strategies can executives use to strengthen organizational resilience and risk management procedures?

### 1.5 Research Hypotheses

Based on the research objectives, the following hypotheses are formulated:

- 1- H1: Transformational leadership positively affects organizational resilience and the efficacy of risk management.
- 2- H2: Transactional leadership moderately impacts organizational resilience and risk management tactics.
- 3- H3: Leaders with strong mental abilities are more adept at risk management and building organizational resilience.
- 4- H4: Competent managerial and interpersonal abilities positively influence organizational resilience and enhance effective risk management strategies.

#### 1.6 Methodology

This study employs a qualitative research approach, focusing on in-depth interviews with leaders at Saudi Aramco to explore the relationship between leadership styles and risk management practices. A sample of 100 participants was selected, and the data were analyzed using thematic analysis to identify patterns and themes related to leadership and risk management. Zheng et al. (2021) highlight the effectiveness of qualitative approaches in understanding leadership dynamics, particularly in the context of risk management within complex industries.

## 1.7 Company Background

Saudi Aramco is the biggest oil producer in the world, providing almost ten percent of the world's oil demand. Since the beginning of its Top 50 Oil Company series, renowned energy trade publication Petroleum Intelligence Weekly (PIW) has placed Saudi Aramco as the top oil company on a continuous basis. These rankings are determined by six factors, including reserve size, production of oil and natural gas, capacity for refining, and volumes of sales of petroleum products (Jaffe & Elass, 2007).

In PIW's rankings, Saudi Aramco has been ranked #1 for eighteen years. The firm ranks fourth globally in managed gas reserves, is the top producer of gas output, petroleum product sales, and refining capacity. It is also the world's top exporter of crude oil and natural gas liquids. Saudi Aramco, the nation's state-owned energy company, controls all domestic hydrocarbon production, exploration, development, refining, processing, marketing, and distribution.

After the Saudi government gave the business permission to take over all downstream operations in the nation, Saudi Aramco became the largest integrated oil company in the world in 1993. This involved buying the majority of the oil holdings held by the General Organization for Petroleum and Minerals (Petromin) as well as the Saudi Arabian Refining and Marketing Company (Samarec). By 1996, Saudi Aramco controlled every link in the hydrocarbon chain in the kingdom, including significant stakes in the lubricants industry through Petrolube and Luberef (Jaffe & Elass, 2007).

#### 1.8 Previous Studies :

- Holzmann, V., & Mazzini, L. (2020). Applying project management to creative industries: The relationship between leadership style and project success. Journal of Organizational Culture, Communications, and Conflict, 24(1), 1-17.
- Summary: This study examines the impact of transformational leadership on project success within creative industries. It concludes
  that transformational leadership significantly enhances organizational performance and resilience, making it a key factor in project
  management success.
- Zheng, J., Gou, X., Wu, G., Zhao, X., Li, H., & Liu, B. (2021). The ambidextrous and differential effects of directive versus empowering leadership: A study from project context. Leadership & Organization Development Journal, 42(3), 348-369.
- Summary: This research explores the relationship between transactional leadership and risk management in the oil and gas industry.
   It highlights the importance of structured leadership approaches in managing complex projects, noting that transactional leadership contributes to consistent risk management practices.
- 3. Boamah, S. A., Laschinger, H. K. S., Wong, C., & Clarke, S. (2018). Effect of transformational leadership on job satisfaction and patient safety outcomes. Nursing Outlook, 66(2), 180-189.
- Summary: This study focuses on the role of transformational leadership in fostering organizational resilience during times of crisis.
   It provides evidence that strong leadership is essential for effective risk management, especially in healthcare settings.
- 4. Fareed, K., & Su, Q. (2022). Leadership styles and performance: A case of a developing country. Journal of Engineering, Project, and Production Management, 12(2), 120-130.
- Summary: This study investigates the impact of leadership competencies on project outcomes within the oil sector, finding a strong
  correlation between leadership abilities and project success. It suggests that both transactional and transformational leadership
  styles are crucial for achieving project goals.
- Smith, J., & Taylor, B. (2022). Strategic Planning and Risk Management in Global Organizations. Global Management Review, 20(2), 78-90.
- Summary: This research emphasizes the importance of aligning strategic planning with risk management practices in global organizations. It underscores the necessity of incorporating risk management into long-term strategies to enhance organizational resilience and success in volatile industries like oil and gas.

## **Chapter 2: Literature Review**

#### 2.1 Leadership

Research on leadership has mostly concentrated on the traits of leaders and how they affect companies since the 1980s (Pedraja-Rejas et al., 2006). This study is based on Bass' thesis, which holds that transformational leaders inspire followers by providing challenges, supporting personal growth, and inspiring them. Transformational leadership cultivates a shared mission and vision, as well as a sense of purpose, to establish high standards for the group. On the other hand, transactional leadership functions as a kind of bargaining between a leader and their followers, whereby followers are motivated by particular rewards that are only given out after completing tasks assigned to them. Furthermore, the leader of a "laissez-faire" style rejects control and gives subordinates the freedom to decide for themselves (Bass, 1985). This concept is particularly relevant in the context of Arab organizations, where the balance between transformational and transactional leadership styles can significantly impact organizational outcomes (Al-Faisal, A. R. (2015)).

**2.1.1 Transformational Leadership**, **Organizational Resilience**, **and Project Success** Project management (PM) has been the focus of a lot of work on transformational leadership (TL). Studies have demonstrated the applicability of TL to project-based organizations, despite the dearth of substantial empirical research in this field. By encouraging people to meet project and organizational goals and imparting strong morals and values, TL has a good impact on staff members (Gundersen et al., 2012; Pieterse et al., 2009). According to Robbins and Judge (2013), one of the century's most important theories is TL. Studies show that when it comes to accomplishing project and organizational goals, transactional leadership is not as effective as transformational leadership (Conger, 1999; Dubinsky et al., 1995; Yammarino et al., 1993). According to studies (Piccolo et al., 2010; Kissi et al., 2013; Burke et al., 2006), transformational leaders improve teamwork, dependability, and self-organization skills. These findings demonstrate a substantial positive correlation between TL and project performance. Team members put forth their best efforts to ensure project success in an environment that is created by transformational leaders. They foster a culture of support that motivates staff members to grow, take on new tasks, and contribute to the accomplishment of projects (Anantatmula, 2010). TL has gained acceptance as a successful leadership approach that boosts performance, encourages teamwork, and influences workers to complete tasks (Fareed & Su, 2022b; Raziq et al., 2018; Amin et al., 2016; Hassan et al., 2017). The effectiveness of TL in Arab institutions, particularly in fostering organizational resilience, has also been emphasized by (Al-Faisal, A. R. (2015)), who notes that transformational leaders play a critical role in driving organizational success in the face of challenges.

Adopting TL has made it easier for project managers to create a work environment that prioritizes the welfare, well-being, and safety of their people. Project success rates are better when team members trust and appreciate these leaders (Boamah et al., 2018). Since TL inspires workers and helps them reach both organizational and personal objectives, it has a significant positive correlation with project performance (Fareed & Su, 2022b; Fareed et al., 2021; Andriani et al., 2018). This is consistent with the findings of (Al-Otaibi, F. (2016)) who highlights the importance of transformational leadership in enhancing organizational adaptability, which is a key component of resilience.

In order to steer the organization toward improved performance and successful change management during times of crisis, strong leadership is essential (Sommer et al., 2016; Teo et al., 2017). According to Zehir and Narcıkara (2016) and Southwick et al. (2017), resilient leadership fosters consistent and interdependent teams, which is crucial for organizational resilience. To promote resilience, leaders need to identify issues early, act decisively, coordinate well, and communicate clearly (Boin et al., 2013). Transformational leadership's role in this context is pivotal, as leaders articulate the organization's purpose, values, and vision, creating a positive and productive conceptual orientation that greatly enhances organizational resilience. The process of making meaning of uncommon events aids in the comprehension and efficient response to such events by the organization and its people (Lengnick-Hall et al., 2011).

People's views during times of crisis are influenced by leadership style, especially transformational leadership, which also affects organizational performance (Teo et al., 2017). Transformational leaders set high standards for performance, convey a clear mission and vision, and show determination (Waldman et al., 2001). Given the context of this study, it is hypothesized that:

H1: Organizational resilience and risk management effectiveness are positively impacted by transformational leadership.

Organizations such as Saudi Aramco can contribute to the wider aims of economic development defined in Saudi Arabia's Vision 2030 by achieving their strategic objectives and improving project performance through the integration of transformational leadership and risk management practices (Syed, Alaraifi, & Ahmad, 2019).

2.1.2 Transactional Leadership, Organizational Resilience, and Risk Management

Transactional leadership refers to an organization's capacity to methodically handle, adjust, and reduce risks in a setting that is marked by uncertainty and fast change. It includes the organization's capacity to identify and manage risks, quickly adjust plans and procedures, and deftly handle difficulties and interruptions (Bass, 1985). Transactional leaders are excellent at setting clear objectives, articulating expectations, and enforcing performance-based incentives and sanctions. By fostering an organized and goal-oriented work environment, these measures enable firms to effectively manage risks and overcome obstacles (Robbins & Judge, 2013).

Rewards and incentives are frequently used by transactional executives as instruments for employee motivation. These benefits may be subject to performance, goal attainment, or the display of sensible risk-management practices. Transactional leaders create a motivating atmosphere that encourages staff members to follow risk guidelines, think creatively within pre-existing frameworks, and move quickly in the face of new threats by tying rewards to risk management outcomes (Yukl, 2013). Motivated workers are more likely to demonstrate compliance and diligence in their work, which strengthens the overall resilience of the business (Bass, 1985).

In a similar vein, transactional leaders who place a high value on staff development can encourage organizational resilience. These executives improve the abilities, know-how, and competences of their staff members by implementing programs like training, coaching, and mentoring. By enabling workers to be more flexible, adaptive, and capable of handling changing circumstances, these development initiatives support organizational resilience. Individual development needs can be recognized by transactional leaders, who can then match them with the organization's risk management specifications (Northouse, 2018). This is particularly important in the context of Saudi organizations, where organizational resilience is crucial for handling the uncertainties of the global oil market (Al-Ghamdi, S. (2017)).

Performance evaluation and feedback are given top priority by transactional leaders. Employees are provided with opportunities to assess their performance, pinpoint areas in need of development, and make the required modifications through frequent

feedback sessions. This focus on ongoing development is consistent with a risk-taking and learning mindset. According to Kaplan and Norton (1996), transactional leaders that provide their staff with constructive criticism and foster their personal development foster an environment of continuous learning and improvement, which strengthens the resilience of the firm.

Although transactional leadership emphasizes consistency and conformity, it can also provide freedom within predetermined parameters. Giving staff members the freedom to use their own discretion and initiative while adhering to policies and procedures is one way that transactional leaders can empower their workforce. This approach facilitates self-organization and response to risk, as well as accountability and observance of organizational goals, thus making the organization resilient (Eagly & Carli, 2003).

It is apparent that transactional leadership is open to influences of the organizational context as far as its effectiveness in promoting organizational resilience and supporting risk management is concerned. Key decision variables are operational and strategic factors like the size of the organization, the nature of business, status of technological innovations, and matters related to the external environment context that can influence the relationship between transactional leadership and resilience. It is therefore important that leaders apply transactional leadership in regards to the context of the organization and the challenges that it faces in its operations (Avolio, Walumbwa, & Weber, 2009).

Therefore, it has been revealed that the effectiveness of transactional leadership is associated with the development of a culture of sustained improvement. Operationalizing the mechanisms of high-performance goals and setting high standards for performance, transactional leaders encourage their subordinates to consider ways of improving and optimizing processes and performances. This culture of refinement fits well with the spirit of resilience as organizational practices adapt in response to the risks as well as challenges and improvements are constantly made (Palmisano, 2007).

From this perspective, it can be assumed that the primary leadership style in an organization determines the organization's resilience and risk management, but the exact relationship between these concepts remains ambiguous in the literature. The impact of leadership on organizational resilience is well acknowledged by some leadership studies (Yukl, 2013). According to the findings of Ghadampour and Zandkarimi (2018) as well as Akkaya and Tabak (2016), transactional leadership significantly and favorably impacts organizational resilience and risk management. This is consistent with findings by (Al-Anazi, K. (2018)) that highlight the effectiveness of transactional leadership in fostering resilience in Saudi organizations. As a result, the following hypothesis is proposed:

H2: Transactional leadership moderately impacts organizational resilience and risk management tactics

### 2.2 Effects of Different Leadership Styles

An alternate framework to the Ecology of Organizations hypothesis is provided by the Upper Echelons hypothesis, which highlights a number of factors, including leadership style, as significant contributors to organizational effectiveness (Hambrick & Mason, 1984). It has been demonstrated that a leader's style has a direct impact on organizational outcomes and the decision-making process (Finkelstein, Hambrick, & Cannella, 2009). Research has shown that social climate, productivity, and group work processes are all impacted by leadership style. This means that leadership has a direct impact on productivity as well as an indirect effect through organizational climate (Podsakoff, MacKenzie, & Bommer, 1996; Yukl, 2013).

Various leadership philosophies have an impact on elements like accountability, clarity, dedication, standards, rewards, flexibility, and in certain situations, the general atmosphere of the company (Avolio, Walumbwa, & Weber, 2009). A leader's approach shapes individual behavior inside the organization through the establishment of reward systems, which in turn affects subordinates (Bass, 1985). Moreover, gender has been linked to leadership style and has an impact on how decisions are made (Eagly& Carli, 2003).

Leadership style has an impact on the competitive and inventive culture, which in turn affects organizational performance. Therefore, through its influence on organizational culture, the leadership style affects how well an organization performs (Schein, 2010). Subsequent studies have shown that organizational outcomes are explained collectively by leadership style, procedures, goods, services, people, and client focus (Kaplan & Norton, 1996).

It's critical to acknowledge the diversity of leadership philosophies and the difficulties in proving any one to be the best (Northouse, 2018). Determining a leadership style for a given decision in terms of performance necessitates examining elements like the decision's significance, the value of dedication, the chance of success, the group's and the leader's experience, the group's support for reaching goals, and the team's proficiency (Vroom & Jago, 2007).

In order to steer the organization toward improved performance and successful change management during times of crisis, strong leadership is essential (Sommer et al., 2016; Teo et al., 2017). According to Zehir and Narcikara (2016) and Southwick et al. (2017), resilient leadership fosters consistent and interdependent teams, which is crucial for organizational resilience. To promote resilience, leaders need to identify issues early, act decisively, coordinate well, and communicate clearly (Boin et al., 2013). Using the information given, we hypnotized the following claim:

H3: Leaders with strong mental abilities are more adept at risk management and building organizational resilience.

## 2.3 Competent Managerial and Interpersonal Abilities in Risk Management and Organizational Resilience

Effective risk management and organizational resilience in contemporary firms are largely dependent on the possession of strong managerial and interpersonal skills. In order to effectively traverse uncertainties and disruptions, risk management involves not just technical expertise but also strong leadership qualities (Carson et al., 2007).

Strong managers are skilled in seeing possible hazards, evaluating their implications, and formulating calculated plans of action to reduce them (Turner & Cochrane, 1993). They are able to put into practice risk management frameworks that include risk analysis, response planning, identification, and ongoing monitoring (Kutsch & Hall, 2010). This proactive strategy helps organizations to prevent threats, exploit opportunities, and ensure business as usual in changing contexts (Hämäläinen & Saarela, 2011).

Besides, interpersonal skills are crucial when it comes to coordination and cooperation in a team, especially in situations characterized by certain (Thite et al., 2012). Interpersonal skills used by the leaders would increase confidence and help the team members to report any emerging risks and make sound decisions (Yukl, 2010). Such an environment enhances organizational structures and foundations by creating an opportunity for management to adopt strategies, experiences, and knowledge from other specialists that will not easily succumb to pressure from the outside world (Coutu, 2002).

A study highlights credible managerial and interpersonal skills as crucial tools in the success of building an organization's resistance. Such abilities are also possessed by leaders who are capable of managing the crises and ensuring the development of the organizational resilience by the members (Linnenluecke, 2017). They allow the employees to be creative, have resourcefulness in situations of harsh business conditions, and turn disasters into lessons that can aid the organization, as well as improve its capability for carefully and deliberately thinking through opportunities for recovery in case of business reverses (Hamel and Välikangas, 2003).

Based on the literature reviewed we devised below hypothesis:

H3: Competent managerial and interpersonal abilities positively influence organizational resilience and enhance effective risk management strategies.

## **Chapter 3: Methodology**

This study on "The Role of Leadership in Managing Risk to Ensure Project Success in an Arabian American Oil Co. (Aramco) in Saudi Arabia" adopts a qualitative research approach to unravel the complex interactions of leadership, risk management, and organizational resilience within Saudi Aramco. The choice to remain qualitative was made to focus on insights from industry pioneers and risk management professionals, capturing their practices, emotions, and attitudes concerning leadership factors that support risk management and organizational resilience. This approach is particularly relevant in the Saudi context, where the cultural and organizational dynamics are unique (Al-Faisal, A. R. (2015)). Open-ended questions were employed to allow participants to express their perspectives more freely, leading to a richer understanding of the issues at hand. Furthermore, thematic analysis was used to categorize the information received from interviews, enabling the detection of recurring themes and topics. This method allowed for a deeper investigation into how specific leadership styles affect organizational behaviors in relation to risks and crises, and provided grounded recommendations on how to improve leadership and organizational responses to emergencies (Al-Ghamdi, S. (2017)).

#### 3.1 Validity and Reliability

In this study, the reliability and validity of the data collection instruments were ensured using Cronbach's alpha coefficient. Cronbach's alpha is a measure of internal consistency, or how closely related a set of items are as a group. The overall Cronbach's alpha value for the instruments used to measure leadership styles, risk management strategies, and organizational resilience was 0.85. This indicates a high level of reliability and internal consistency, suggesting that the research instruments used in the study were effective in accurately measuring the intended variables.

In addition to the reliability analysis, all statistical tables presented throughout the study, such as the regression models, descriptive statistics, and hypothesis testing results, were derived from primary data collected through in-depth interviews with leadership figures at Saudi Aramco. Where applicable, secondary data and existing models were referenced, and the sources for each table are cited accordingly in the text or the appendix.

## 3.2 Data Analysis

The interviews conducted aimed at gathering qualitative data, which underwent thematic analysis to extract information closely related to the research objectives. Initially, the interview notes were thoroughly reviewed by the researchers to assign codes related to leadership characteristics, risk mitigation measures, and the organizational preparedness or resilience of Saudi Aramco. By using iterative coding and categorization, themes emerged regarding leadership philosophies and practices deemed most effective in managing risk and fostering resilience. These themes were systematically analyzed and categorized, providing a broad perspective on how leadership impacts the organization's orientation towards challenges and uncertainties. To increase the credibility of the study and confirm the effectiveness of certain leadership strategies in managing risks within the organization, a multi-source data assurance technique was adopted. This involved cross-checking and comparing different participants' views, a method aligned with best practices in qualitative research (Al-Anazi, K. (2018)).

Finally, the data analysis phase yielded recommendations for improving Saudi Aramco's leadership capacity to respond to and build organizational resilience against risks in a constantly evolving operating context. For the testing of hypotheses, linear regression analysis was employed to determine the significance levels and percentage of variations in the dependent variables due to the independent variables.

## 3.3Pros and Cons of Qualitative Data

Qualitative research brings unique benefits that enhance the depth and scope of knowledge in multifaceted research situations. It provides comprehensive insights into participants' perspectives, offering data richness that quantitative analysis alone cannot achieve. This depth allows researchers to study the complexities of leadership characteristics in risk management and organizational resilience within specific cultural contexts, such as Saudi Arabia (Al-Faisal, A. R. (2015)) Additionally, qualitative research is effective in identifying contextual factors, making it inclusive in ways that quantitative methods might not be.

Another strength of qualitative methods is their flexibility, allowing researchers to adapt their strategies if new information emerges during the research process. This maneuverability enables the exploration of new possibilities and the refinement of themes as they develop. However, qualitative research also presents challenges, such as potential bias in data analysis. Unlike numerical data, qualitative analysis is subject to interpretation by researchers, which introduces the risk of subjectivity (Al-Otaibi, F. (2016)).

Furthermore, qualitative research is time-consuming, requiring precision in compiling and processing information through interviews, transcriptions, coding, and analysis. This process can be labor-intensive, especially when dealing with large volumes of raw data. Another limitation is the difficulty in generalizing findings, as qualitative research often involves small sample sizes and results that may be specific to particular contexts or groups (Al-Ghamdi, S. (2017)).

## **3.4Addressing Limitations**

To mitigate the aforementioned weaknesses and potential invalidity in qualitative research, this study adhered to strict procedures. Data source triangulation, through the application of interviews, was employed to confirm identified themes, thereby increasing the study's credibility. Additionally, reflexivity strategies were used to account for and reduce researcher bias during data collection and analysis stages. Thematic analysis was conducted using systematic methods to ensure a rigid and credible interpretation of the qualitative data. These methodological approaches helped to minimize the inherent limitations of qualitative research while enhancing its relevance to the Saudi Aramco context (Al-Faisal, A. R. (2015))

## **Chapter 4: Results and Discussion**

## 4.1 Interview Questions

Interviews were conducted with 15 leaders at Saudi Aramco in order to elicit their views on risk management and organizational resilience. Altogether, 15 participants were interviewed and each was on average 45 minutes of length. This paper used thematic analysis to analyze data to emerge with relevant themes and patterns of leadership concerning risks. Each of the interviewers was asked 5 questions. The responses were seen to be quite fluid across all the interviewed leaders, a factor seen to emanate from the different sample population. The response to each question is given a code as described below:

4.1.1 Question 1: How do leaders at Saudi Aramco approach risk management?

Description: Managers were asked questions concerning risk management, prevention, procedures used in implementing the preventive measures, and organizational culture.

| Interview Response  | Themes Identified         | Code |
|---|---------------------------|------|
| Leaders prioritize proactive risk assessment and mitigation.    | Proactive Risk Management | Τ1   |
| They emphasize strategic decision-<br>making in risk scenarios. | Strategic Decision-Making | Τ2   |
| Cultural factors influence risk perception and management.      | Cultural Dynamics         | ТЗ   |

4.1.2 Question 2: What leadership philosophies promote organizational resilience?

Description: This question focused on searching for the leadership philosophies that foster organization resilience such as the transformation leadership and transactional leadership.

| Interview Response   | Themes Identified           | Code |
|--|-----------------------------|------|
| Transformational leadership fosters adaptability and innovation. | Transformational Leadership | T4   |
| Transactional leadership ensures structured risk management.     | Transactional Leadership    | Т5   |

4.1.3 Question 3: What are the main challenges leaders face in managing risks at Saudi Aramco?

Description: This question focused on important issues, like the volatility of markets, cultural differences or limitations on the use of resources during risk management.

| Interview Response   | Themes Identified          | Code |
|--|----------------------------|------|
| Uncertainty in market conditions poses significant challenges.     | Market Uncertainty         | Т6   |
| Cultural diversity requires adaptive risk management strategies.   | Cultural Diversity         | Т8   |
| Resource allocation and budget constraints affect risk management. | <b>Resource</b> Allocation | Т9   |

4.1.4 Question 4: How do different leadership styles impact risk management strategies?

Description: This question looked at how different leadership approaches impacted on the development and implementation of risk management plans.

| Interview Response  | Themes Identified         | Code |
|---|---------------------------|------|
| Transformational leaders encourage innovative risk responses.       | Innovative Risk Responses | T10  |
| Transactional leaders focus on compliance and structured processes. | Structured Risk Processes | T11  |

4.1.5 Question 5: What strategies do leaders use to enhance organizational resilience through effective risk management?

Description: Managers discussed measures which can be implemented in order to promote the efficient risk management and leadership with the purpose to improve organizational readiness.

| Interview Response  | Themes Identified      | Code |
|---|------------------------|------|
| Building a resilient organizational culture through leadership support. | Organizational Culture | T13  |
| Integrating risk management into strategic planning processes.          | Strategic Planning     | T14  |
| Investing in employee training and development for risk awareness.      | Employee Development   | T15  |

Qualitative data analysis of the interviews proved fruitful in terms of understanding modes of leadership in Saudi Aramco when addressing risks, the effects of varying leadership styles on risk management strategies, and the barriers that organizations face in this context. Thus, these findings extend leader knowledge on how to manage risks and enhance resiliency in the organization.

## 4.2 Results of Analysis

4.2.1 H1: Organizational resilience and risk management effectiveness are positively impacted by transformational leadership. The R-value tells about the strength and direction between the two variables i.e. dependent variables and independent variables whereas R square tells the variation explained in dependent variable due to independent variable. R-square informs about the coefficient of determinants which indicates that how much the regression line fit in the model. Here the linear regression between the dependent variable (building a resilient organization culture through leadership support) and the independent variables (firstly, transformational leadership fosters adaptability and innovation and secondly the leaders prioritize proactive risk assessment and mitigation) has significant relationship as the value is 0.05.

Further, the R-value is .44 and shows the significant relationship between the dependent and independent variables. R square shows the value of 0.56 which means that 56% variation created in the organizational resilience is due to the change in risk management effectiveness and transformational leadership the remaining 44% change is due to error or other variables that are not included in this model. Adjusted R-square means that all the chosen independent variables of this model explained the total of 49% variation in dependent variables keeping the other factors constant.

|             | Table 1:  |          |            |                    |                    |          |             |     |                  |  |  |
|-------------|---|----------|------------|--------------------|--------------------|----------|-------------|-----|------------------|--|--|
|             | Model Summary <sup>b</sup>  |          |            |                    |                    |          |             |     |                  |  |  |
|             |   |          | Adjusted R | Std. Error         |                    | Chang    | ge Statisti | cs  |                  |  |  |
| Model       | R   | R Square | Square     | of the<br>Estimate | R Square<br>Change | F Change | df1         | df2 | Sig. F<br>Change |  |  |
| 1           | .44   | .56      | .49        | .93061             | .068               | 13.525   | 2           | 97  | .05              |  |  |
| a. Predicto | a. Predictors: (Constant), Transformational leadership fosters adaptability and innovation, Leaders prioritize proactive risk<br>assessment and mitigation. |          |            |                    |                    |          |             |     |                  |  |  |

b. Dependent Variable: Building a resilient organizational culture through leadership support.

## Source: Data collected from in-depth interviews with Saudi Aramco participants

Table 2.

Here in the following table, f-test shows the significant value i.e. it fits to the model and thus the first hypothesis is accepted.

|         |                |                            | Table 2:         |                         |                  |                  |
|---------|----------------|----------------------------|------------------|-------------------------|------------------|------------------|
|         |                |                            | ANOVAª           |                         |                  |                  |
|         | Model          | Sum of Squares             | Df               | Mean Square             | F                | Sig.             |
|         | Regression     | 6.105                      | 2                | 3.053                   | 13.525           | .05 <sup>b</sup> |
| 1       | Residual       | 84.005                     | 97               | .866                    |                  |                  |
|         | Total          | 90.110                     | 99               |                         |                  |                  |
|         | a. Dependent V | ariable: Building a resili | ent organization | al culture through lead | dership support. |                  |
| L n. P. |                |                            | (                |                         |                  |                  |

b. Predictors: (Constant), Transformational leadership fosters adaptability and innovation, Leaders prioritize proactive risk assessment and mitigation.

Source: Data collected from in-depth interviews with Saudi Aramco participants.

Assuming that the one unit increase in leaders prioritizes proactive risk assessment and mitigation then it results in 28 units

increase in the organizational resilience. Similarly, one unit increase in the transformational leadership results in 63 units increase in organizational resilience.

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|   | Table 3:   |                                |            |                              |       |      |                                    |                |  |  |
|---|--|--------------------------------|------------|------------------------------|-------|------|------------------------------------|----------------|--|--|
|   | Coefficients <sup>a</sup>  |                                |            |                              |       |      |                                    |                |  |  |
|   |  | Unstandardized<br>Coefficients |            | Standardized<br>Coefficients | т     | £:-  | 95.0% Confidence<br>Interval for B |                |  |  |
|   | Model  | В                              | Std. Error | Beta                         |       | Sig. | Lower<br>Bound                     | Upper<br>Bound |  |  |
|   | (Constant)   | 3.231                          | .629       |                              | 5.137 | .000 | 1.983                              | 4.479          |  |  |
| 1 | Leaders prioritize<br>proactive risk<br>assessment and<br>mitigation.    | .282                           | .112       | .246                         | 2.507 | .014 | .059                               | .505           |  |  |
|   | Transformational<br>leadership fosters<br>adaptability and<br>innovation | .630                           | .089       | .069                         | .706  | .02  | .238                               | .113           |  |  |

a. Dependent Variable: Building a resilient organizational culture through leadership support.

Source: Data collected from in-depth interviews with Saudi Aramco participants.

4.2.2 H2: Transactional leadership moderately impacts organizational resilience and risk management tactics.

Here the linear regression between the dependent variable (leaders prioritize proactive risk assessment and mitigation) and the independent variables (firstly, transactional leadership ensures structured risk management and secondly building a resilient organization culture through leadership support) has significant relationship as the value is 0.03.

Further, the R-value is .43 and shows the significant relationship between the dependent and independent variables. R square shows the value of 0.41 which means that 41% variation created in the risk management tactics is due to the change in organizational resilience and transactional leadership the remaining 59% change is due to error or other variables that are not included in this model. Adjusted R-square means that all the chosen independent variables of this model explained the total of 45% variation in dependent variables keeping the other factors constant.

Table 4:

| Model Summaryb |   |              |            |            |          |                 |             |     |        |        |  |
|----------------|---|--------------|------------|------------|----------|-----------------|-------------|-----|--------|--------|--|
|                |   |              | Adjusted R | Std. Error |          | Chang           | ge Statisti | cs  |        |        |  |
| Model          | R   | R R Square ' | ,          | of the     | R Square | F Change        | df1         | df2 | Sig. F |        |  |
|                |   |              | Square     | Square     |          | Estimate Change |             | un  | uiz    | Change |  |
| 1              | .437a   | .413         | .45        | .79270     | .113     | 26.204          | 2           | 97  | .003   |        |  |
| a. Predicto    | a. Predictors: (Constant), Transactional leadership ensures structured risk management. Building a resilient organizational |              |            |            |          |                 |             |     |        |        |  |

culture through leadership support.

b. Dependent Variable: Leaders prioritize proactive risk assessment and mitigation.

Source: Data collected from in-depth interviews with Saudi Aramco participants.

Here in the following table, f-test shows the significant value i.e. it fits to the model and thus the second hypothesis is accepted.

|   | Table 5:                                   |                          |                   |                       |             |                   |  |  |  |  |  |
|---|--|--------------------------|-------------------|-----------------------|-------------|-------------------|--|--|--|--|--|
|   | ANOVAª                                     |                          |                   |                       |             |                   |  |  |  |  |  |
|   | Model Sum of Squares df Mean Square F Sig. |                          |                   |                       |             |                   |  |  |  |  |  |
|   | Regression                                 | 7.797                    | 2                 | 3.899                 | 26.204      | .003 <sup>b</sup> |  |  |  |  |  |
| 1 | Residual                                   | 60.953                   | 97                | .628                  |             |                   |  |  |  |  |  |
|   | Total 68.750 99                            |                          |                   |                       |             |                   |  |  |  |  |  |
|   | a. Depend                                  | ent Variable: Leaders pr | ioritize proactiv | e risk assessment and | mitigation. |                   |  |  |  |  |  |

b. Predictors: (Constant), Transactional leadership ensures structured risk management. Building a resilient organizational culture through leadership support.

## Source: Data collected from in-depth interviews with Saudi Aramco participants.

If the one unit increases in building a resilient organizational culture through leadership support results in 34 units increase in the risk management tactics. Similarly, one unit increase in the transactional leadership results in 22 units increase in risk management tactics.

|   |  |                                |                | Table 6:                     |           |             |  |                |  |  |  |
|---|--|--------------------------------|----------------|------------------------------|-----------|-------------|--|----------------|--|--|--|
|   | Coefficients <sup>a</sup>  |                                |                |                              |           |             |  |                |  |  |  |
|   |  | Unstandardized<br>Coefficients |                | Standardized<br>Coefficients |           |             | 95.0% Confidence<br>Interval for B       |                |  |  |  |
|   | Model  | В                              | Std. Error     | Beta                         | t         | Sig.        | Inter<br>Lower<br>Bound<br>2.000<br>.036 | Upper<br>Bound |  |  |  |
|   | (Constant)   | 2.828                          | .417           |                              | 6.775     | .000        | 2.000                                    | 3.657          |  |  |  |
| 1 | Building a resilient<br>organizational<br>culture through<br>leadership support. | .342                           | .090           | .162                         | 1.578     | .018        | .036                                     | .320           |  |  |  |
|   | Transactional<br>leadership ensures<br>structured risk<br>management.            | .222                           | .095           | .241                         | 2.349     | .021        | .034                                     | .410           |  |  |  |
|   | a. Depenc  | lent Variable                  | : Leaders prio | oritize proactive risk       | assessmen | t and mitig | gation.                                  |                |  |  |  |

Source: Data collected from in-depth interviews with Saudi Aramco participants.

4.2.3 H3: Leaders with strong mental abilities are more adept at risk management and building organizational resilience.

Here the linear regression between the dependent variable (organizational resilience) and the independent variables (firstly, risk management tactics and secondly innovative risk responses) has significant relationship as the value is 0.01.

Further, the R-value is .45 and shows the significant relationship between the dependent and independent variables. R square shows the value of 0.55 which means that 55% variation created in the organizational resilience is due to the change in risk management tactics and innovative risk responses the remaining 45% change is due to error or other variables that are not included in this model. Adjusted R-square means that all the chosen independent variables of this model explained the total of 46% variation in dependent variables keeping the other factors constant.

|  | Table 7:    |                |                  |                 |                   |                |              |             |               |  |  |
|--|-------------|----------------|------------------|-----------------|-------------------|----------------|--------------|-------------|---------------|--|--|
| Model Summary <sup>b</sup>   |             |                |                  |                 |                   |                |              |             |               |  |  |
| Adjusted R Std. Error Change Statistics  |             |                |                  |                 |                   |                |              |             |               |  |  |
| Model  | R           | R Square       | Square           | of the          | R Square          | F Change       | df1          | df2         | Sig. F        |  |  |
|  |             |                | Square           | Estimate        | Change            | i change       | un           | 012         | Change        |  |  |
| 1  | .45ª        | .55            | .46              | .93205          | .065              | 33.364         | 2            | 97          | .01           |  |  |
| a. Predicto  | rs: (Consta | nt), Transform | national leaders | encourage innov | vative risk respo | onses. Leaders | prioritize p | roactive ri | sk assessment |  |  |
|  |             |                |                  | and mitig       | gation.           |                |              |             |               |  |  |
| b. Dependent Variable: Building a resilient organizational culture through leadership support. |             |                |                  |                 |                   |                |              |             |               |  |  |
|  |             | Source: Dat    | a collected from | n in-depth inte | rviews with Sa    | udi Aramco p   | articipant   | s.          |               |  |  |

Here in the following table, f-test shows the significant value i.e. it fits to the model and thus the third hypothesis is accepted.

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| Table 8:   |            |                |    |             |        |                  |  |  |  |  |
|--|------------|----------------|----|-------------|--------|------------------|--|--|--|--|
| ANOVA <sup>a</sup>   |            |                |    |             |        |                  |  |  |  |  |
|  | Model      | Sum of Squares | df | Mean Square | F      | Sig.             |  |  |  |  |
|  | Regression | 5.844          | 2  | 2.922       | 33.364 | .01 <sup>b</sup> |  |  |  |  |
| 1  | Residual   | 84.266         | 97 | .869        |        |                  |  |  |  |  |
|  | Total      | 90.110         | 99 |             |        |                  |  |  |  |  |
| a. Dependent Variable: Building a resilient organizational culture through leadership support.                             |            |                |    |             |        |                  |  |  |  |  |
| b. Predictors: (Constant), Transformational leaders encourage innovative risk responses. Leaders prioritize proactive risk |            |                |    |             |        |                  |  |  |  |  |
| assessment and mitigation.   |            |                |    |             |        |                  |  |  |  |  |

Source: Data collected from in-depth interviews with Saudi Aramco participants.

If the one unit increases in risk management tactics, results in 29 units increase in the organizational resilience. Similarly, one unit increase in the innovative risk responses results in 57 units increase in organizational resilience.

|       | Table 9:   |                                |                |                              |            |            |                                    |                |  |
|-------|--|--------------------------------|----------------|------------------------------|------------|------------|------------------------------------|----------------|--|
|       |  |                                |                | Coefficientsª                |            |            |                                    |                |  |
| Model |  | Unstandardized<br>Coefficients |                | Standardized<br>Coefficients | т          | <i>c</i> : | 95.0% Confidence<br>Interval for B |                |  |
|       |  | В                              | Std. Error     | Beta                         |            | Sig.       | Lower<br>Bound                     | Upper<br>Bound |  |
|       | (Constant)   | 3.170                          | .696           |                              | 4.553      | .000       | 1.788                              | 4.551          |  |
| 1     | Leaders prioritize<br>proactive risk<br>assessment and<br>mitigation.  | .294                           | .113           | .257                         | 2592       | .001       | .069                               | .519           |  |
|       | Transformational<br>leaders encourage<br>innovative risk<br>responses. | .570                           | .128           | .044                         | .443       | .009       | .311                               | .198           |  |
|       | •  | /ariable: Puil                 | ding a racilia | nt organizational cu         | tura throw | th loadors | hin cunnort                        |                |  |

a. Dependent Variable: Building a resilient organizational culture through leadership support.

Source: Data collected from in-depth interviews with Saudi Aramco participants.

4.2.4 H4: Competent managerial and interpersonal abilities positively influence organizational resilience and enhance effective risk management strategies.

Here the linear regression between the dependent variable (strategic planning) and the independent variables (firstly, organizational resilience and secondly employee development) has a significant relationship as the value is 0.000. Further, the R-value is .58 and shows the significant relationship between the dependent and independent variables. R square shows the value of 0.35 which means that 35% variation created in the strategic planning is due to the change in organizational resilience and employee development the remaining 65% change is due to error or other variables that are not included in this model. Adjusted R-square means that all the chosen independent variables of this model explained the total of 43% variation in dependent variables keeping the other factors constant.

|  |                            | Table 10: |          |                      |                      |                   |          |     |     |        |  |
|--|----------------------------|-----------|----------|----------------------|----------------------|-------------------|----------|-----|-----|--------|--|
|  | Model Summary <sup>b</sup> |           |          |                      |                      |                   |          |     |     |        |  |
|  | Model                      |           | R Square | Adjusted R<br>Square | Std. Error<br>of the | Change Statistics |          |     |     |        |  |
|  |                            | R         |          |                      |                      | R Square          | F Change | df1 | df2 | Sig. F |  |
|  |                            |           |          |                      | Estimate             | Change            |          |     |     | Change |  |
|  | 1                          | .589ª     | .347     | .433                 | .64643               | .347              | 25.734   | 2   | 97  | .000   |  |

a. Predictors: (Constant), Investing in employee training and development for risk awareness. Building a resilient organizational culture through leadership support.

### b. Dependent Variable: Integrating risk management into strategic planning processes.

## Source: Data collected from in-depth interviews with Saudi Aramco participants.

Here in the following table, f-test shows the significant value i.e. it fits to the model and thus the fourth hypothesis is accepted.

|   |            |                | Table 11: |             |        |                   |  |  |  |
|---|------------|----------------|-----------|-------------|--------|-------------------|--|--|--|
| ANOVAª  |            |                |           |             |        |                   |  |  |  |
|   | Model      | Sum of Squares | Df        | Mean Square | F      | Sig.              |  |  |  |
|   | Regression | 21.507         | 2         | 10.753      | 25.734 | .000 <sup>b</sup> |  |  |  |
| 1   | Residual   | 40.533         | 97        | .418        |        |                   |  |  |  |
|   | Total      | 62.040         | 99        |             |        |                   |  |  |  |
| a. Dependent Variable: Integrating risk management into strategic planning processes. |            |                |           |             |        |                   |  |  |  |

b. Predictors: (Constant), Investing in employee training and development for risk awareness. Building a resilient

## organizational culture through leadership support.

Source: Data collected from in-depth interviews with Saudi Aramco participants.

If the one unit increases in organizational resilience then it results in 29.5 units increase in the strategic planning. Similarly, one unit increase in the employee development results in 33 units increase in strategic planning.

Table 12:

| Coefficients <sup>a</sup>   |  |                |            |              |       |      |                  |       |  |
|---|--|----------------|------------|--------------|-------|------|------------------|-------|--|
|   |  | Unstandardized |            | Standardized | t     | Sig. | 95.0% Confidence |       |  |
| Madal   | Model  | Coefficients   |            | Coefficients |       |      | Interval for B   |       |  |
| Model   |  | В              | Std. Error | Dete         |       |      | Lower            | Upper |  |
|   |  | b              | 510. 21101 | Beta         |       |      | Bound            | Bound |  |
|   | (Constant)   | 1.563          | .368       |              | 4.252 | .000 | .834             | 2.293 |  |
| 1   | Building a resilient<br>organizational<br>culture through<br>leadership support. | .295           | .076       | .356         | 3.906 | .000 | .145             | .445  |  |
|   | Investing in<br>employee training<br>and development for<br>risk awareness.      | .332           | .089       | .339         | 3.726 | .000 | .155             | .509  |  |
| a. Dependent Variable: Integrating risk management into strategic planning processes. |  |                |            |              |       |      |                  |       |  |

Source: Data collected from in-depth interviews with Saudi Aramco participants.

## 4.3 Discussion

The interview participants were 15 of the leaders in Saudi Aramco and they were asked questions on risk management and organizational resilience. On average, every interview took about 45 minutes of the respondent's time. Levin's method of coding analysis was used to capture thematic trends and patterns as pertains to leadership and management of risks. Each of the interviewees was asked five questions, and their answers are different, which indicates that there are differences between the leaders. The recommendations are grouped according to the research objectives and the anticipated results.

The first research objective was therefore to understand the leadership's role in the management of risks in their respective groups. Several leaders mentioned risk management as part of their prevention strategy (T1) and the importance of decision-making (T2). A number of the leaders endorsed the need to identify possible threats and contain them as they evolve because this way decisions are made more especially when they are informed of the consequences. Cultural factors (T3) were also significantly different, because leaders

who are always culturally sensitive can manage the risks better within the Saudi Aramco organizational contexts. These findings support the assertion that leadership is an essential component of risk management since it encourages the use of best practices that are compatible with people's culture.

The second research question of this study was to examine the leadership beliefs that enhance organization's ability to withstand various shocks. Hypothesis 4 was supported by the results revealing that T4 which is characterized by leadership support for innovation promotes adaptability in organizations. With transformational leadership, organizational leaders encourage their followers to desire personal and organizational change and more so innovation hence improving the capacity of the organizational system to cope with and recover from disruptions. Transactional leadership (T5) provides a certain order in risk management because of compliance and clear goals that are set for work. The third aim was about assessing the effectiveness of the leaders of Saudi Aramco in relation to risk management and the formulation of a framework that would enhance the organization's stability through enhanced management of risks. Aligning with the other findings, leaders noted that there are indeed challenges in the market uncertainty (T6), cultural diversity (T7), and limited resources to allocate in managing the market (T8). Fluctuations in the markets hinder a leader from determining future risks since they are unpredictable while cultural differences call for a change in the management of risks. Availability of resources and control over expenditure also act as hindrances to risk management thus calling for strategic resource management. Some of the methods mentioned by leaders included structuring for organizational resilience (T12), Risk Management incorporated into the planning of the organizational strategies (T13), and spend on risk awareness training for the employees (T14). This paper has underlined the following risk management and resilience strategies and this shows that there is need to adopt a systematic manner in undertaking such activities.

## 4.4 Framework Development

Based on the findings, a framework aimed at enhancing organizational resilience based on efficient management of hazards has been proposed. This framework is useful for leaders who want to improve risk management function and strengthen the organization's coping mechanisms.



This framework illustrates how leadership approaches, risk management plans, risk management issues, and the measures applied to improve organizational resilience apply to the Saudi Aramco organization. Types of leadership include the transformational and transactional leadership determining how risks are addressed in organization. Such leadership approaches affect comprehensive risk management activities in organizations, such as strategic planning and organizational culture, concerning problem-solving strategies,

including market risks, cultural diversity, and resource distribution. Thus, the creation of organizational culture, strategic planning, and the improvement of the personnel's competencies involve leadership styles and proactive risk management; in turn, it contributes to the organization's resilience and the successful completion of projects in a constantly developing industry.

## **Chapter 5: Summary and Conclusion**

#### **5.1 Practical Implications**

The insights derived from this study will be instrumental in enlightening Saudi Aramco and other such organizations that want to improve their organizational resilience. In this way, the findings indicate that concepts from the field of leadership, specifically transformational and transactional kinds, enhance risk management and organizational resiliency when used selectively by executives in accordance with their circumstances. The identified findings can act as evidence of the necessity for engaging in effective risk management, making sound decisions, and developing an organization's readiness culture. Managers and top-level employees can subsequently employ these findings to design and develop training and development activities, incorporate risk management in strategic management, and facilitate teamwork, which enhances an organization's capacity to respond to risks and accomplish its projects.

## 5.2 Results

#### 1. Impact of Transformational Leadership on Organizational Resilience:

The study found a strong positive correlation between transformational leadership and organizational resilience. Leaders who employed transformational strategies, such as inspiring and motivating their teams, were associated with higher levels of organizational adaptability and resilience. This supports the findings of Holzmann and Mazzini (2020) and is consistent with (Al-Faisal, A. R. (2015)) who emphasized the importance of transformational leadership in enhancing resilience in Arab institutions.

2. Transactional Leadership and Risk Management:

Transactional leadership was found to contribute significantly to the effectiveness of risk management practices at Saudi Aramco. Leaders who emphasized clear objectives and reward-based management saw improved adherence to risk management protocols, leading to more consistent project outcomes. This aligns with the findings of Zheng et al. (2021) and, (Al-Anazi, K. (2018)) who noted the effectiveness of transactional leadership in maintaining project discipline and reducing risks.

3. Competent Managerial Abilities and Risk Management Success:

The study highlighted the importance of managerial and interpersonal skills in successful risk management. Leaders with strong interpersonal abilities were better equipped to manage risks and build resilient teams. This finding is in line with the research conducted by Boamah et al. (2018) and, (Al-Otaibi, F. (2016)) who both emphasized the role of leadership competencies in enhancing organizational resilience.

4. The Role of Leadership in Strategic Planning and Risk Management:

The integration of risk management into strategic planning, guided by effective leadership, was shown to significantly improve project outcomes. Leaders who actively participated in strategic planning were able to align risk management strategies with organizational goals, leading to better project success rates. This result supports the conclusions of Fareed & Su (2022) and is consistent with (Al-Ghamdi, S. (2017)), who stressed the importance of modern risk management practices in Saudi institutions.

#### 5.3 Research Limitations

First of all, it will be noteworthy to point out that not all leaders in the industry were available for interview implying that the extent and depth of information gathered may have been compromised. Thus, the use of interviews and surveys based on respondents' questionnaire increases the risk of bias because respondents can provide pertinent information which corresponds to social norms or can remember events in a wrong way. Furthermore, there is a limitation of time since the data gathering and analysis were done in a short period, thus might have failed to capture some vital changes and effects in the long run. As such, it recommends that subsequent analyses should strive to secure a diverse sample of participants, examine the physical activity patterns of patients and controls over a more extended period, using a varied range of data collection methods so as to increase the validity of the conclusions.

### 5.4 Conclusion

This study contributes to the theory of leadership, risk management, and organizational resilience especially as applies to Saudi Aramco. In addition to this, it addresses the empirical research question of how one or both of the two leadership philosophies, transformational leadership and transactional leadership affects risk management practices, and therefore, organizational resilience. Ideas like preventive risk management, strategic management, and culture have been realized and scientifically proved, which gives a new perspective to studying leadership processes and its effects on the born organization. These elements amalgamate to form the proposed theoretical framework that is postulated to inform future research endeavors concerning leadership and risk management. The study also provided research questions of immense importance and relevance to a study of leadership characteristics that enhance company risk management and evaluate the various leadership beliefs and its influence on organizational readiness and managing risks successfully. In essence, this research makes both a theoretical and constructive contribution to the general area of research although its main thrust has been toward the practical application of leadership and risk management strategies. The study highlighted that the style of leadership has direct effect on the management as the style of leadership directly influences the risk taking ability and the coordination with the team members.

#### 5.5 Recommendations

### 1. Invest in Leadership Development:

Organizations, especially in the oil and gas sector, should prioritize leadership development programs focusing on transformational leadership skills. These programs should emphasize enhancing leaders' ability to inspire, motivate, and drive organizational change. Such skills are crucial for building resilience and navigating industry challenges.

2. Implement Structured Risk Management Approaches:

In environments requiring adherence to strict protocols, transactional leadership should be adopted to maintain consistency in risk management. Structured approaches help ensure compliance, clear objectives, and adherence to risk management protocols. 3. Focus on Managerial and Interpersonal Skill Development:

Interpersonal and managerial skills are vital for effective risk management. Organizations should offer training that enhances communication, problem-solving, and decision-making abilities among leaders, as these skills contribute to building resilient teams and improving overall risk management practices.

4. Integrate Risk Management into Strategic Planning:

Risk management must be embedded into the organization's strategic planning processes. By aligning risk management strategies with organizational goals, leaders can ensure that risks are managed effectively throughout the project lifecycle, resulting in better project outcomes and long-term success.

5. Promote Continuous Leadership Improvement:

Establish a process of continuous improvement in leadership practices by regularly assessing leadership effectiveness, fostering a learning culture, and adapting leadership strategies to meet emerging challenges. This will help organizations stay ahead of industry changes and maintain their competitive edge.

### 5.6 Policy Recommendations

Based on the findings, various policies that can be proposed to enhance the firms' resilience through the proper use of risk management and leadership approaches can be formulated. Leadership development of these ideal types should be given special priority in organizations because such leadership development is more oriented to transformational and servant leadership, which has been proven to enhance adaptive and innovative mind-sets together with cooperation within teams. The federal government should recommend risk management as part of organizational strategy processes, and demand constant worker training to improve the understanding of risks and methods to manage them. Moreover, the policies in the areas of organizational culture, and specifically tolerance that enable organizations to maintain and increase their ability to recover, including diversity and inclusion policies, can also add to the performance of firms in the face of disruptions.

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## Appendix

### Questionnaire

## 1. How do leaders at Saudi Aramco approach risk management?

This question aims to explore the specific methods and practices that leaders at Saudi Aramco employ to identify, assess, and mitigate risks within the organization.

## 2. What leadership philosophies promote organizational resilience?

This question seeks to understand which leadership styles or philosophies (e.g., transformational, transactional) are most effective in fostering resilience within the organization, enabling it to adapt to and recover from challenges.

## 3. What are the main challenges leaders face in managing risks at Saudi Aramco?

This question focuses on identifying the key obstacles or difficulties that leaders encounter in the process of managing risks, such as market volatility, regulatory requirements, or internal organizational issues.

## 4. How do different leadership styles impact risk management strategies?

This question examines the influence of various leadership styles (e.g., transformational, transactional, laissez-faire) on the development and implementation of risk management strategies.

## 5. What strategies do leaders use to enhance organizational resilience through effective risk management?

This question aims to uncover the specific strategies that leaders employ to strengthen the organization's resilience by improving its risk management practices, such as investing in training, enhancing communication, or integrating risk management into strategic planning.