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**THE ROLE OF HIGH EMOTIONAL INTELLIGENCE LEADERS IN ACHIEVING
SAUDI ARABIA'S VISION 2030: A STUDY IN THE PETROCHEMICAL INDUSTRY**

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**THE ROLE OF HIGH EMOTIONAL INTELLIGENCE LEADERS IN ACHIEVING SAUDI ARABIA'S
VISION 2030: A STUDY IN THE PETROCHEMICAL INDUSTRY**

By

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Abstract

This research explores diversifying Saudi Arabia's (KSA) economy from oil-based to non-oil-based in line with Vision 2030. The petrochemical industry plays a vital role in achieving the vision and therefore the leaders in these industries have a significant role in enhancing the performance in this sector. Despite its importance, leaders' emotional intelligence (EI) in this sector receives insufficient attention. Therefore, this research aims to analyse the effect of the EI skills of leaders in the petrochemical industry on the organization's performance, using a conceptual framework based on empirical and theoretical literature. Eight hypotheses were formulated to examine EI competencies: self-awareness (S1), self-regulation (S2), internal motivation (S3), empathy (S4), and social skills (S5), and their influence on employee productivity, working environment condition, and economic growth. The study conducted a survey with 103 respondents from KSA's petrochemical industry and applied statistical analysis. One-sample t-tests confirmed that middle-level managers possess all five EI skills: self-awareness ($t[103] = 43.60, p < 0.05$), self-regulation ($t[103] = 32.48, p < 0.05$), internal motivation ($t[103] = 38.82, p < 0.05$), empathy ($t[103] = 37.47, p < 0.05$), and social skills ($t[103] = 39.21, p < 0.05$). The correlation coefficient (R) from the linear regression

analysis ranged between 0.793 and 0.967. Results revealed that leaders showed strength in self-awareness and internal motivation, while improvement is needed in self-regulation, empathy, and social skills. The study emphasizes the importance of focusing on EI skills, noting the limited research on EI of leaders in KSA, and advocates for further exploration in this area.

Keywords: Emotional Intelligence, Employee Productivity, Leadership, Petrochemical Industry

Introduction

In 2016, the Kingdom of Saudi Arabia (KSA) announced "Saudi Vision 2030", which is centred on three primary objectives: (i) building a thriving economy, (ii) building a more vibrant society and (iii) strengthening government capacity (an ambitious nation) (Alshuwaikhat and Moahmmed, 2017). Vision 2030 includes several programs essential for achieving its targets. These programs include human capability development, financial sector development, health sector development, housing program, fiscal sustaining program, quality of life program, privatization program, public investment fund program, pilgrims experience program, national transformation program (NTP), and national industrial development and logistics program (Grand and Wolff, 2020). Vision 2030 will be crucial for KSA's long-term economic success, and achieving this success depends on the ability of the leaders of the petrochemical industry to meet the key performance indicators and utilize their maturity and experience effectively. At present, the KSA relies mainly on oil for its economy. Oil revenues were responsible for 90 percent of export earnings, 87 percent of budget revenues, and 42 percent of the GDP (Figure 1) (Grand and Wolff, 2020). In a little more than half a century, the substantial oil revenues have turned KSA into a significant regional and global power driver (Grand and Wolff, 2020).

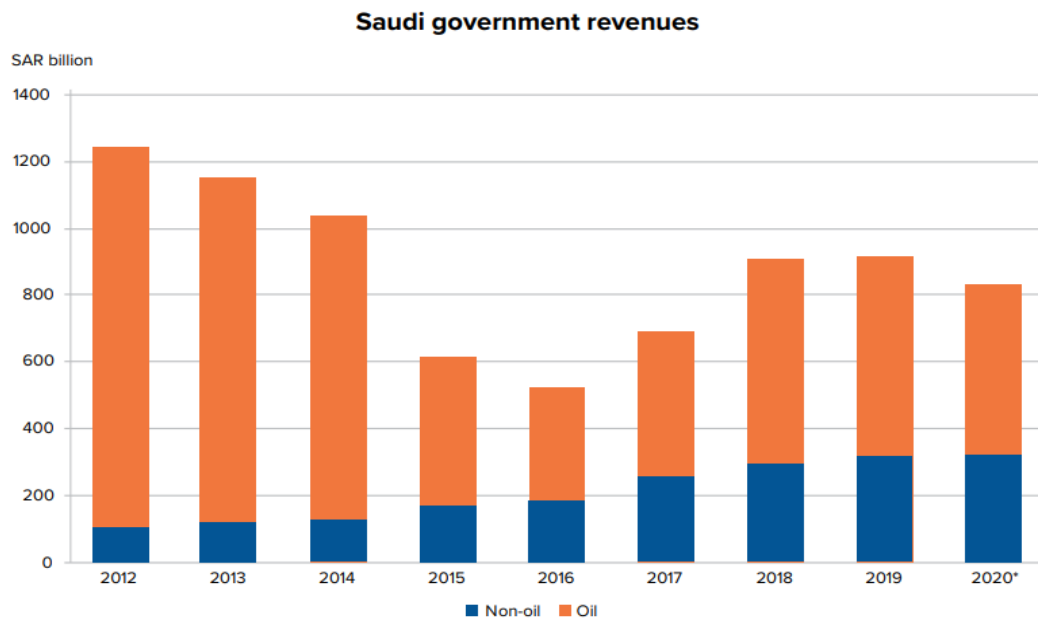


Figure 1: Saudi Government revenues for the period 2012-2020 (Grand and Wolff, 2020, p. 5)

Despite the current significant growth of the oil-based economy, the sector encountered challenges following the decline in oil prices in 2014 (Grand and Wolff, 2020). This highlights the necessity of diversifying the economy and reducing the dependence on the oil sector alone. The oil market is likely to be highly volatile in the coming decades, with long-term prices anticipated to fluctuate (Grand and Wolff, 2020). Considering such volatility in oil market prices, there is a need to shift to a non-oil-based economy to achieve Vision 2030. The success in achieving key performance indicators (KPIs) of Vision 2030 would look like a more diversified and sustainable economy with a reduced reliance on oil. It would also mean a more inclusive society with greater opportunities for all citizens. One of the sub-objectives under the second objective of Saudi Vision 2030 (building a thriving economy) reads as “eliminating many oil subsidies to help modernize the oil sector, while capitalizing upon downstream opportunities in oil and petrochemicals, as well as exploiting the mining of other natural resources” (Alshuwaikhat and Moahmmmed, 2017). EI is an important skill for leaders in petrochemical industry which is defined as the ability to comprehend, identify, and regulate your own emotions, as well as the emotions of others and the feelings of other people and

groups. It also involves distinguishing between different emotions and using that awareness to guide personal actions and thinking (Papoutsis et al., 2019; Yadav and Lata, 2019). Several models explain the theory and concept behind this important trait of emotional intelligence, including Bar-On's competency model, Mayer and Salovey's four-branch model, and the Goleman model. Bar-On's competency model contains interrelated emotional and social competencies that help individuals to be more effective in understanding themselves and interacting with others (Zoromba et al., 2015). The Mayer and Salovey four-branch model is the primary ability model of emotional intelligence (Fiori and Vesely-Maillefer, 2018). This model encompasses various mental skills that facilitate the assessment, expression, and regulation of emotions. The Goleman model defines emotional intelligence as "the capacity to recognize our own feelings and those of others, to motivate ourselves, and to manage emotions and relationships effectively" (Goleman, 1996). There is a strong correlation between EI and leadership. A leader with a mature understanding of the Emotional Intelligence Quotient (EIQ) is expected to be an excellent team leader and eventually an effective leader. There are many studies (Antonakis et al., 2009; Gondal and Husain, 2013; Vratskikh et al., 2016; Issah, 2018; Drigas and Papoutsis, 2023) focusing on the role of EI in effective leadership. Issah (2018) conducted case study research on the relationship between emotional intelligence and leadership. Based on the findings, it was concluded that it is essential for future leaders to possess EI skills to prepare them to provide effective leadership adequately. Antonakis et al., (2009) conducted a study to analyse whether EI is important in driving effective performance. They conducted a case study on whether EI is theoretically required for leadership, the types of emotional intelligence tests that may hold the most promise, methodological standards for testing whether emotional intelligence matters, evidence from the neuroscience literature on EI, and evidence regarding the links between EI of leaders and follower outcomes. Based on the findings, it was concluded that EI is required for effective leadership. In this research, a

survey was conducted with leaders working in the petrochemical industry in KSA to measure their EI competencies and the effect of EI on organizational performance. A total of 140 employees working in the petrochemical industry were requested to participate in the survey, and a total of 103 responses were obtained. This research aims to examine the effect of EI on effective leadership skills at the “middle management level” in the petrochemical industry in KSA. Regression techniques were used to analyse the data to predict the effect of leaders' EI on the performance of the organization. The research framework centres on key principles linking emotional intelligence (EI) with leadership within the petrochemical industry. This framework was designed by integrating both theoretical and empirical components to develop eight hypotheses. These hypotheses assess leaders' EI competencies (self-awareness, self-regulation, internal motivation, empathy, and social skills) and examine the impact of EI on employee productivity, workplace conditions, and economic growth. The framework anticipates that adopting EI principles for leaders in this sector will lead to a significant enhancement in organizational performance. The anticipated outcome of this research is to enhance the capabilities of the leaders in the petrochemical industries by effectively practicing and adopting EI skills. The following questions have been raised to analyse the effect of EI of leaders in achieving KSA Vision 2030:

What is the level of the five components of EI skills (self-awareness, self-regulation, internal motivation, empathy, and social skills) for leaders in petrochemical industries in the KSA?

What is the relationship between the EI of leaders in the petrochemical industry in the KSA and employee productivity?

What is the relationship between the EI of leaders in the petrochemical industry in the KSA and working environment conditions?

What is the relationship between the EI of leaders in the petrochemical industry in the KSA and economic growth?

What are the measures to enhance the EI skills of the leaders in the petrochemical industry in KSA?

Literature Review

This research focuses on the role of high EI leaders in achieving KSA Vision 2030 focusing on petrochemical industries. Hence, one of the main objectives of the literature review is to examine previous studies on EI and how it affects effective leadership. First, this research discusses KSA Vision 2030 and the impact of the petrochemical industry in achieving KSA Vision 2030. Next, it discusses EI, EI models, strategic development for EI, EI journey, and EI in the workplace. Then leadership is discussed including components and characteristics of leadership, and the previous findings on the effect of EI on effective leadership. In this research, the relevant literature on the effect of EI on effective leadership is examined in detail. Literature review is divided into the following seven sections to provide a thorough analysis of previous studies related to this research: The first section reviews literature related to KSA Vision 2030 addressing the main pillars toward achieving vision targets: an ambitious nation, vibrant society, and thriving economy. The second section highlights the role of the petrochemical industry in achieving KSA Vision 2030. This section starts with highlighting the uncertainties related to the reliance on an oil-based economy and the need to shift towards a non-oil-based economy. It also highlights the potential and challenges for the petrochemical industry in achieving KSA Vision 2030. Section three starts with defining EI and then presents a comprehensive review of various components of EI including attributes related to EI, EI models, strategy development for EI, EI journey, and EI in the workplace, and challenges related to lack of EI. Section four starts with defining leadership and then it discusses the

components of leadership in detail, and finally the characteristics of leadership are discussed. Then, the previous findings on the effect of EI on leadership skills and subsequently on overall performance. Last section of the literature review highlights the knowledge gap in the study. The knowledge gap acquired through the literature articulates the purpose of conducting the study and it was used in formulating the aim and objectives of this research.

Figure 2 illustrates the different sections of the literature review chapter.

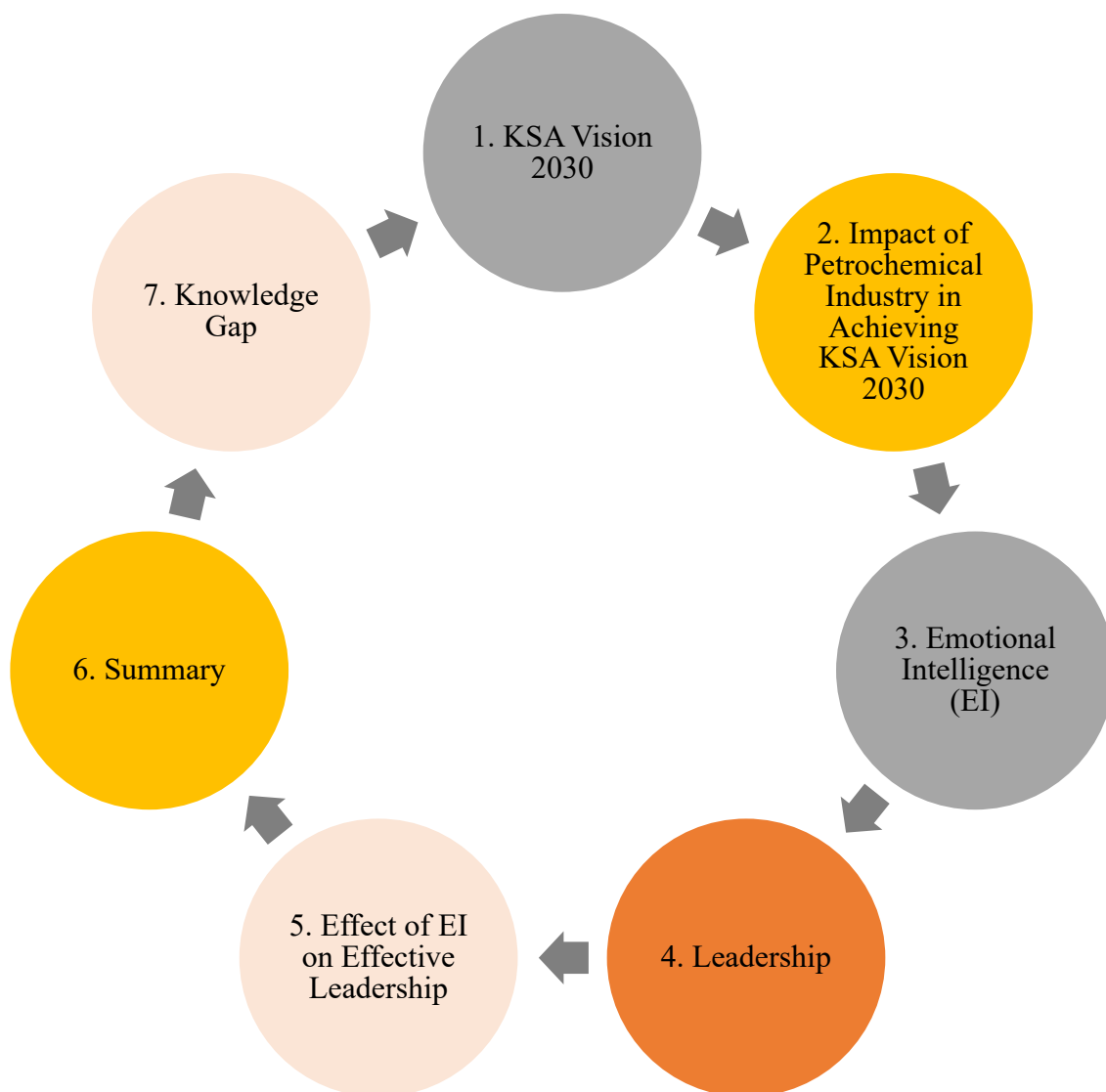


Figure 2: Content of the Literature Review Chapter

Source: The Researcher

Petrochemical Industry

The petrochemical industry is undergoing rapid transformation, driven by advancements in materials science and digital technologies. To remain competitive, the petrochemical sector in KSA must prioritize investments in research and development, also adopt innovative technologies to enhance efficiency and lower costs. Addressing these challenges demands a comprehensive approach, including strategic investments, fostering international partnerships, and emphasizing innovation. By tackling these obstacles effectively, KSA's petrochemical industry can solidify its position as a global leader and play a pivotal role in achieving the nation's broader vision. Pillay et al. (2013) conducted a study centred on the petrochemical industry, emphasizing that the sector's reliance on traditional leadership styles could impede the integration of EI leadership approaches. The deeply hierarchical structures and cultural norms prioritizing authority and control within many organizations pose significant challenges to adopting EI, which values empathy and collaboration. The sector is currently transitioning towards diversifying the production of chemicals and commodities. To boost non-oil exports, the focus is on expanding downstream specialty and end-product sectors and developing higher value-added manufacturing processes. Consequently, the petrochemical sector plays a pivotal role in achieving the strategic objectives outlined in Vision 2030.

Emotional Intelligence (EI)

Different components of intelligence are distinguished among individuals, and they are social intelligence, non-cognitive intelligence, emotional strength, interpersonal intelligence, and intrapersonal intelligence. People with high capabilities demonstrate these intelligences, eventually leading to the development of high EI. The development and emergence of the concept of EI have come about with the detection of individuals who have high scores in most IQ-like tests but fail in real life. EI is an important factor that improves communication within

the organization, as well as the ability of individuals to measure organizational performances, to influence achievement and leadership skills (Petrides and Furnham, 2000). The concept of EI is used as a performance criterion to fulfil performance in the organization. According to the socio-analytic approach of Hogan and Roberts (2000), EI is related to the motivation to understand others well and to get along well with them.

Leadership

Many organizations in global environments and circumstances rely on effective leadership styles to excel in their performance as there are many advantages of effective leadership. According to Pancasila et al. (2020), the enhancement of the overall effectiveness of an organization relies on effective leadership. The leadership has a greater influence on work motivation targeting employee job satisfaction which eventually will be reflected in the overall performance of the organization. Leadership behaviour has an important role, mainly interactive, ethical, and transformational behaviour, in addition to the importance of the support from organizations in sustaining the psychological needs of the people that will enhance employee satisfaction and well-being. This eventually will result in more optimistic and hopeful working environment conditions for the people and enhance flexibility and efficiency while performing their duties (Marashdah and Albdareen, 2020). Leadership characteristics are vital for a performance-driven culture in any organization. Transformative leaders have the experience, knowledge, and skills, and make decisions effectively taking risks with the power of a visionary character (Maisyura et al., 2022). Crossan et al. (2023) defined leadership character as the foundation for effective decision-making and functioning. It shapes many aspects of our lives including the way we engage with others, the reinforcement we follow through our rewards and punishments, the engagement in the conversations, values, the feedback interpretation, dealing with conflicts and disappointments, our goals, and the communication. Pillay et al. (2013) conducted a study that emphasized the importance of EI in

effective leadership focusing on the petrochemical industry. This study was conducted in South Africa aiming to determine the impact of EI on effective leadership in the organization in the petrochemical industry. The researchers adopted quantitative research by conducting a survey with a positivist paradigm for leaders working in business units in the petrochemical sector. The survey had input to assess the emotional quotient inventory and the leadership aspects. The findings of the study indicated that the respondents who scored high on EQ had high scores in transformational leadership, yielding a positive correlation between EI and transformational leadership. Accordingly, the researcher recommended the proper development of EI skills for leaders in the petrochemical industry to express effective transformational behaviours in petrochemical organizations. The findings of this research are particularly relevant to the petrochemical industry in KSA, given the similarities in industry characteristics. Effective transformational leadership, driven by EI, can significantly contribute to advancing progress toward KSA Vision 2030. The survey in this study was conducted at a specific point in time (cross-sectional), and the findings could be further validated and strengthened through longitudinal research conducted over different periods. The petrochemical sector in KSA shares similar characteristics, making these implications applicable. The positive correlation between EI and the effectiveness of adopting transformational leadership styles is evident. Leaders with high EI demonstrate unique interpersonal skills, empathy, and self-awareness, which enable them to inspire and motivate their teams. The literature is summarized with the focus on KSA Vision 2030 as a social and economic strategic program by KSA aimed at diversifying the economy of the nation and stimulating numerous changes in its social and economic sectors. Vision 2030 focuses on three pillars such as a vibrant society, a thriving economy, and ambitious nations, it is significantly important to maximize the benefits of a non-oil-based economy to achieve KSA vision 2030, and the petrochemical industry is a key player in achieving the KSA vision 2030. The petrochemical market size in the KSA can reach around

USD 800 billion in 2030 as a total value and this builds confidence and strong belief in the attractiveness of the petrochemical industry. As there are very limited research studies focusing on the effect of EI of leaders on organizational success in the petrochemical industry, this research explored the literature on EI, leadership, and the effect of EI on leadership. A comprehensive review was conducted on various areas including KSA Vision 2030, the petrochemical industry in KSA, aspects related to EI including its characteristics, different EI models, strategy development for EI, EI journey, EI in the workplace and challenges related to EI, leadership aspects including components of leadership, characteristics of leadership, and finally the previous findings on the effect of EI on leadership. There are various definitions for EI in the literature and it is generally defined as the ability of a person to realize and understand his own emotions as well as the emotions of others to make effective decisions. As per the literature, EI is significantly important for a leader in any sector to create a positive impact on organizational performance. There are five attributes of EI, and they are self-awareness, self-regulation, internal motivation, empathy, and social skill, and all the EI models are based on these attributes. There are three major EI models namely Bar-On's competency model, Mayer and Salovey four branch model, and the Goleman model. Bar-On's competency model contains five main domains: intrapersonal skills, interpersonal skills, adaptability, stress management, and general mood. Mayer and Salovey's model identified that EI has mental abilities for the individual to express and regulate his emotions and it has four branches: perceiving emotions, facilitating through using emotions, understanding, and managing emotions. On the other hand, the Goleman model focuses on cognitive abilities and personality characteristics. He concluded that EI has many aspects like self-control, emotional control, openness, transparency, adaptability, and flexibility in different situations. Some of the key characteristics that distinguish impactful EI leaders include active listening, showing empathy during interactions with other people, and encouraging dialogue and two-way communication

among individuals. The researchers recommended empathy and active listening as essential strategies to develop the EI of the leaders. Also, they emphasized the importance of coaching skills in the journey towards the enhancement of EI skills. Leadership is defined in many studies as a social influence process in which the leader seeks the participation of the subordinates to reach organizational goals. Researchers highlighted the importance of leadership in influencing communication and motivation in an organization. There are several skills that distinguish leaders from others such as cognitive skills, business skills, interpersonal skills, and strategic skills. Mutual trust and empowerment are key factors for successful leadership. The characteristics of leadership are essential for the performance enhancement of organizations through knowledge, experience, decision-making, and vision-oriented character. There are various types of leadership including empowering leadership, transformational leadership, servant leadership, and transactional leadership. The importance of transformational leadership style in terms of power and strength in predicting employee job satisfaction has been highlighted in previous studies. The researchers highlighted that servant leadership (humility of leaders) by taking care of the people and respecting different viewpoints is important in enhancing the satisfaction level and the performance in the organization. The researchers recommend that leadership behaviours can be enhanced through training and development plans. Regarding the effect of EI on effective leadership, it has been highlighted in the previous studies that EI is significantly important for leaders, visionary leaders in particular, as it is the main factor for success in maximizing the benefits realized in achieving targeted milestones. Several studies dictated that EI is positively linked with servant leadership, which is eventually linked positively with overall organizational success. In addition, it has been found that EI is a predictor of an effective transformational leadership style in which the leader has the ability to identify the needed change, creates a vision that provides guidance by inspiring the followers, and implements the change with the commitment

of the team members. The primary focus of this study is KSA Vision 2030, and it is highlighted that the shift towards a non-oil-based economy is essential in achieving the goals set under KSA Vision 2030. The petrochemical industry has a lot of potential in KSA and will play a major role in leading the revenue generation for the economy of the country. The leaders working in this sector are the key success factor in driving the change that eventually will be beneficial to the economic growth of the country. There are multiple studies exploring the importance of EI, attributes related to EI, and various models with recommended strategy deployment of EI. Simultaneously, there are plenty of studies focusing on the importance of leadership in the organization and those studies cover components of leadership, characteristics of leaders in making a positive impact on the team, and the effect of EI on effective leadership. The primary finding of these studies indicated that EI is a significant predictor of effective leadership. To date, there is a lack of studies examining the EI of leaders in the petrochemical industry and its impact on organizational success in this sector. Given this gap, it is crucial to explore the role of high EI leaders in driving the success of the petrochemical industry in alignment with Saudi Arabia's Vision 2030. The findings of this study will provide insight into the EI levels of the leaders in the petrochemical industry, its effect on the performance of the organization, and training needs for the leaders in the petrochemical industry to enhance their EI skills. The findings of this research will lead pathways to enhance the performance of the petrochemical sector, which will in turn facilitate the mission of achieving KSA Vision 2030.

Methodology

The first part discusses various components of research methodology development including research classification, research philosophy, research approach, research methods, research design, and research onion. Based on the research objectives and questions, a set of research hypotheses and a conceptual framework were formulated. The purpose of a research study is to provide conclusions that are rational regarding a comprehensive measure of the

phenomena for the research (Sileyew, 2019). The conclusions are made by adopting a proper methodology for the research. Methodology of research is a structured and systematic approach that helps in solving a research problem; mainly based on scientific concepts that explain how the research is performed. In other words, it is the steps and procedures that a researcher follows regarding explaining, describing, and evaluating certain phenomena. It is essential to help the researcher and give the study a systematic work plan (Sileyew, 2019). First, the descriptions of the various aspects of the research methodology development including research approach, research paradigm, research design, and the conceptual framework of the research are explained. This chapter then presented the research hypotheses and how they are linked to the research objectives. Subsequently, the case study design is presented in detail including the details on population, sampling, data collection, questionnaire design, and data analysis. Finally, the ethical considerations in the research study are highlighted. Figure 4 shows the conceptual framework of the study which links the dependent variables (employee productivity, working environment conditions, and economic growth) and independent variables (five dimensions of EI such as self-awareness, self-regulation, internal motivation, empathy, and social skills) adopted in the present research. Each dimension of EI links directly to the three dependent variables.

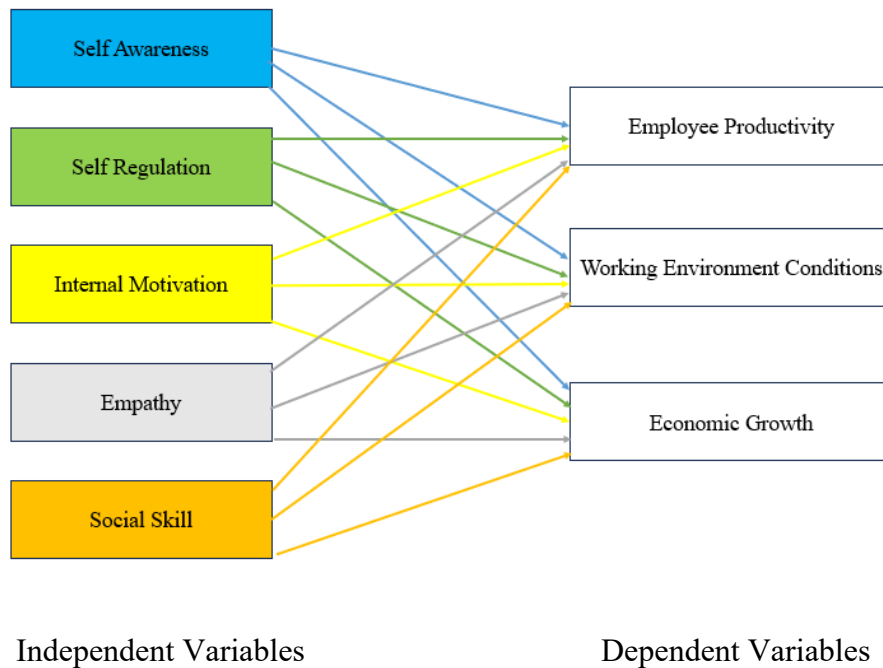


Figure 3: The conceptual framework of the study

Source: The Researcher

Results

This cross-sectional study was developed based on empirical data and aims to measure the effect of five components of EI of middle-level management leaders in the petrochemical industry in KSA. The research specifically assessed whether there are significant correlations between the EI skills of leaders and performance indicators of an organization, such as employee productivity, working environment conditions, and economic growth. The researcher followed a deductive research approach to test the knowledge and verify the significance of assumed research hypotheses. The results obtained from the survey through a quantitative analysis are comprehensively detailed. Exploratory descriptive statistics and data analysis were applied in this process. The Microsoft Excel software was used to calculate Pearson's correlation coefficient (R) to describe the strength of the relationship between the two variables and the p-value to identify the significance of Pearson's R. The results and the findings from

this analysis support the hypotheses of the research. Based on the regression results to check the hypotheses, there is a linear relationship between the assessed dependent and independent variables. Table 1 summarizes the results of the hypotheses testing.

Table 1: Summary of the results of hypotheses testing of EI Components

Hypothesis	Result
H1o: Middle-level management in KSA petrochemical industries has no self-awareness skills in leading their teams.	Reject
H1a: Middle-level management in KSA petrochemical industries has self-awareness skills in leading their teams.	Accept
H2o: Middle-level management in KSA petrochemical industries has no self-regulation skills in leading their teams.	Reject
H2a: Middle-level management in KSA petrochemical industries has self-regulation skills in leading their teams.	Accept
H3o: Middle-level management in KSA petrochemical industries has no internal motivation skills in leading their teams.	Reject
H3a: Middle-level management in KSA petrochemical industries has internal motivation skills in leading their teams.	Accept
H4o: Middle-level management in KSA petrochemical industries has no empathy skills in leading their teams.	Reject

H4a: Middle-level management in KSA petrochemical industries has empathy skills in leading their teams.	Accept
H5o: Middle-level management in KSA petrochemical industries has no social skills in leading their teams.	Reject
H5a: Middle-level management in KSA petrochemical industries has social skills in leading their teams.	Accept
H6o: There is no significant difference among high EI middle-level management in KSA petrochemical industries with employee productivity	Reject
H6a: There is a significant difference among high EI middle-level management in KSA petrochemical industries with employee productivity	Accept
H7o: There is no significant difference among high EI middle-level management in KSA petrochemical industries with working environment conditions	Reject
H7a: There is a significant difference among high EI middle-level management in KSA petrochemical industries with working environment conditions	Accept
H8o: There is no significant difference among high EI middle-level management in KSA petrochemical industries with company economic growth	Reject

H8a: There is a significant difference among high EI middle-level management in KSA petrochemical industries with company economic growth	Accept
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Regression analyses were conducted to assess the effect of the five EI components on employee productivity, working environment conditions, and economic growth. Based on the outcome of the regression analyses, it was found that all the assumed alternative hypotheses were true, and the null hypotheses were rejected. In addition, from the correlation analysis performed it was observed that there is a strong, positive, and linear correlation between employee productivity and the five EI skills, and the strongest relationship was found between employee productivity and internal motivation (R-value = 0.924). Similarly, the working environment condition also has a strong, positive, and linear correlation with the five EI skills and the strongest correlation was found between working environment condition and social skills (R-value = 0.928). The results also revealed that there is a strong, positive, and linear correlation between economic growth and the five EI skills, and the relationship between economic growth and social skills (R-value = 0.967) was found to be the strongest. Overall, the findings of the study suggest that the adoption of five EI skills by the middle-level management of the petrochemical industry in KSA will have a good reward to the organizations in enhancing employee productivity, producing a conducive working environment, and increasing economic growth.

Conclusions

The quantitative research method was adopted by collecting measured data and statistical analysis was performed for the data collected through a survey distributed among a random sample of 103 employees working in the middle-level management of the petrochemical industries in KSA. The study dictates the importance of effective leadership attitudes toward

social skills enhancement. The study also found that there is a linear relationship between the following: employee productivity and EI skills of the leader, working environment conditions and EI skills of the leader, and economic growth and EI skills. When the leader possesses high self-awareness, it will lead to enhanced employee productivity, better working environment conditions, and higher economic growth for the company. The same trend was found for the remaining EI components. This means leaders with high self-regulation, internal motivation, empathy, and social skills have a positive impact on employee productivity, working environment conditions, and economic growth. The case study indicated that there are variations in the responses on the demonstration of EI skills of middle-level management. The highest score was obtained for self-awareness, while the lowest scores were obtained for self-regulation. In addition, the majority acknowledged that the EI contributed positively to employee productivity, overall working environment conditions, and economic growth. The last two questions in the survey targeted to assess the awareness of the people on the future growth and expansion in petrochemical industries. Most of the respondents believe that the petrochemical industry requires leaders with high EI skills to achieve KSA Vision 2030. EI is significantly important at work as the leader can recognize, observe, understand, and manage the emotions of himself and others. The ability to handle emotions gives the leader the ability to guide and help people. Consequently, it will enhance employee productivity in a consistent manner and the working environment conditions will be attractive for the people. Eventually, the overall performance of the organization will rise to new heights of excellence in generating revenue and contributing towards prosperous economic growth. The case study indicates that there is a good level of knowledge about the growth initiative in the petrochemical sector in either KSA or global expansion. Additionally, people believe that KSA Vision 2030 requires leaders with high EI skills to lead the petrochemical industries toward future growth demand. Practicing these skills in an effective manner is a key enabler toward creating a positive

influence and impact. For instance, the leader should have the ability to understand nonverbal communication. For instance, if a person feels down, then the leader must show more empathic dealing to understand his concern and help him to solve it. Another example is, if the leader is aware of his own feelings, he can adjust his behaviour according to the situation to focus on more positive feelings. In this research, it was discovered that EI and leadership skills are integrated in such a way that there is a considerable effect of EI on effective leadership. Active listening, patience, and positive thinking are distinguished skills for leaders that are correlated with an understanding of individual own emotions and the emotions of others. Global leaders in industries normally focus on financial performance without paying attention to the leadership aspects that influence their organizations. Presently it has been proven that it is necessary to demonstrate important EI skills for the success of an organization.

Leaders in petrochemical industries need to consider EI skills as an integral part of organizational development programs focusing on middle-level management and to collaborate in terms of human capital development frequently with international developments in this field. Improving EI in the workplace will inspire the team toward enhancing productivity, improving the working environment conditions and well-being of the organization, and enhancing the company's overall profitability.

There are some steps that enhance the EI of the leaders. For instance, the leader should be able to identify his weaknesses by conducting a self-assessment from well-known beneficial tools. Also, leaders must have the ability to reflect on how they dealt with various situations as this will help in how to deal with future situations in an effective manner. The focus of the middle-level management of the petrochemical industry on the five components of EI (self-awareness, self-regulation, internal motivation, empathy, and social skills) will have a good return on the success of the organization. The research indicates that middle-level management

in the KSA petrochemical industry possesses some components of EI skills including self-awareness skills and internal motivation skills. However, they do not possess some of the EI skills up to the expected levels which include self-regulation skills, empathy, and social skills.

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Appendices

Section I: Basic Information of the participants

Question Number	Question	Answer	Objective
1	How long you have been working in the petrochemical industry in KSA?	a) Less than five years b) 5-10 years c) 10 -15 years d) More than 15 years	To identify the professional experience of the participant
2	What is your gender?	a) Male b) Female	To know the gender of the participant.
3	What is your age?	a) Less than 30 years b) 30-39 c) 40-49 d) 50 and above	To identify the participants' ages for overall statistics
4	What is your maximum educational qualification?	a) PhD /Master's Degree b) Bachelor's Degree c) Diploma d) High school	To capture the diversity in the education level of the participants

Section II: Effect of EI skills of leaders on the organization's performance

For questions 5 to 33, participants will respond using a 5-point Likert scale: a) Strongly Agree, b) Agree, c) Neither Agree Nor Disagree, d) Disagree, and e) Strongly Disagree.

Question Number	Code	Item	Objective
Emotional Intelligence			
5	S1	My management is usually aware of their feelings in difficult situations.	To measure the self-awareness skills of the leaders
6	S1	My management knows their own strengths and weaknesses.	To measure the self-awareness skills of the leaders
7	S1	My management is often optimistic even in difficult situations	To measure the self-awareness skills of the leaders
8	S2	My management remains calm in difficult situations.	To measure the self-regulation skills of the leaders

9	S2	My management makes rapid decisions when they are not in control of the situation.	To measure the self-regulation skills of the leaders
10	S2	My management holds themselves accountable during the failure	To measure the self-regulation skills of the leaders
11	S3	My organization has reward schemes to motivate its employees.	To measure the internal motivation skills of the employees
12	S3	During the challenges, the management always motivates me.	To measure the internal motivation skills of the employees
13	S3	The management always sees the best in the team.	To measure the internal motivation skills of the employees

14	S4	The management demonstrates care about employee feelings.	To measure the empathy skills of the leader
15	S4	The management enjoys listening to employees and usually shows good empathy.	To measure the empathy skills of the leader
16	S5	The management tries to make a difference in the society and contributes to the society.	To measure the social skills of the leader
17	S5	Where I work, the management is socially oriented	To measure the social skills of the leader
18	S5	Management encourages networking with others.	To measure the social skills of the leader

Employee Productivity			
19	S1P	I know what inspires me to excel in work.	To measure the effect of self-awareness (one of the components of EI) on employee productivity
20	S2P	I remain calm during difficult situations and that enhances my performance	To measure the effect of self-regulation (one of the components of EI) on employee productivity
21	S3P	The main reason for my performance enhancement is the motivation from the management.	To measure the effect of internal motivation (one of the components of EI) on employee productivity

22	S4P	The empathy shown by management contributes to my performance enhancement	To measure the effect of empathy (one of the components of EI) on employee productivity
23	S5P	Social awareness and the contribution of the organization make me feel proud and increase my performance	To measure the effect of social skills (one of the components of EI) on employee productivity
Working Environment Condition			
24	S1W	I recognize the best working environment conditions for me in my organization.	To measure the effect of self-awareness (one of the components of EI) on working environment condition

25	S2W	I react either positively or negatively to the change in the working environment conditions.	To measure the effect of self-regulation (one of the components of EI) on working environment condition
26	S3W	I am inspired by the working environment condition enhancement	To measure the effect of internal motivation (one of the components of EI) on working environment condition
27	S4W	Leaders usually express their feelings to support the employee for working environment concerns.	To measure the effect of empathy (one of the components of EI) on working environment condition
28	S5W	Leaders are approachable and they	To measure the effect of social skills

		listen to the employee's concerns and take necessary actions.	(one of the components of EI) on working environment condition
Economic Growth			
29	S1E	I know my contribution to achieving the overall net profit of the organization.	To measure the effect of self-awareness (one of the components of EI) on economic growth
30	S2E	I am aware that rapid decisions in difficult situations affect the profitability of the organization.	To measure the effect of self-regulation (one of the components of EI) on economic growth
31	S3E	The reward schemes practiced in the	To measure the effect of internal

		organization inspire me to contribute to the growth of the company.	motivation (one of the components of EI) on economic growth
32	S4E	Leaders in the company involve me and listen to my suggestions to contribute to the company's growth.	To measure the effect of empathy (one of the components of EI) on economic growth
33	S5E	The leaders in my company possess good social skills and it enhances the economic growth of the organization.	To measure the effect of social skills (one of the components of EI) on economic growth

Section III: Case Study

Question Number	Question	Answer	Objective
34	Are you aware of the growth in the petrochemical industry in KSA?	a) Yes b) No	To check the knowledge of the participants about the growth in the

			petrochemical industry (for case study purposes)
35	Do you think the EI skills of the leaders in the petrochemical sectors in KSA are important in achieving growth?	a) Yes b) No	To check the knowledge of the participants about EI and the importance of EI for the petrochemical industry (for case study purposes)