A Study of the Impact of Leadership Development Programme on Transformational Leadership, Innovation Culture and Organisational Performance at an Oil and Gas Company in Oman

By

MOHAMED SULAIMAN ABDULLAH ALBANDARI

Student Number: 1504291

Lead Supervisor Dr. Uma Mohan Mokashi

Thesis submitted in accordance with the requirements of University of Wales Trinity Saint David for

The degree of Doctor of Business Administration

Under the auspices of

London School of Commerce

2020

DECLARATION 1

DECLARATION SHEET

This sheet MUST be signed and included within the thesis

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed .... (Student)

Date.....06/10/2020.....

STATEMENT 1
This thesis is the result of my own investigations, except where otherwise stated. Where correction services have been used the extent and nature of the correction is clearly marked in a footnote(s). Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

Signed..... ..... (Student)

Date.....06/10/2020.....

STATEMENT 2
I hereby give consent for my thesis, if accepted, to be available for photocopying and for inter-library loan, and for the title and summary to be made available to outside organisations

Signed .... (Student)

Date.....06/10/2020.....

STATEMENT 3
I hereby give consent for my thesis, if accepted, to be available for deposit in the University's digital repository.

Signed..... .... (Student)

Date.....

Abstract

Due to an increasingly unpredictable and complex world, developing transformational and innovative future leaders who seek to enhance organisational performance has become a priority for oil and gas companies. Petroleum Development Oman Company (PDO) invests in the Leadership Essentials Programme (LE) to prepare future leaders as part of leadership development programmes. However, there is no previous research or feedback addressing to what extent the outcome of LE Programme at PDO is improving capabilities of potential leaders to change their behaviours towards transformational leadership styles, contributing to build innovation culture at PDO, and enhancing organisational performance.

Therefore, this research focuses on measuring the impact of the leadership development programme on transformational leadership, innovation culture, and organisational performance at PDO. The aim of this study is to recommend a framework to develop and implement change management strategies for revising the Leadership Essentials Programme (LE) with a view to enhance organisational performance at PDO.

This study employs a mixed research methodology using a survey questionnaire and interviews. Data of the questionnaire was collected from two groups (experiment and control) of 180 potential leaders, and data of interviews was analysed from two types of interviews with 10 managers and senior staff at PDO, and with two trainers from the Leadership Essentials Programme. A multivariate ANOVA analysis was made to test three research hypotheses. A template analysis of interviews was applied to four main themes in PDO's code of conduct including transformational leadership, innovation culture, diversity and inclusion, and organisational performance. A template analysis was also used to analyse data from interview with trainers of the Leadership Essentials Programme to analyse themes related to challenges of design, delivery, assessment evaluation, and suggested changes for future (LE) Programme.

The results revealed that there is a significant impact of leadership development programme on transformational leadership, innovation culture, and organisational performance. Findings from interviews with mangers and senior staff showed that complying with Health, Safety and Environment (HSE) standards, and achieving business production targets were priorities. Results also identified challenges related to the nationalisation process of leadership positions. Data from interviews with trainers of the Leadership Essentials Programme (LE) revealed some challenges related to lack of identifying training needs, lack of practical reflection and follow-up support, and lack of assessment.

This research contributes to theory because it is the first research that measures the link between a leadership development programme and transformational leadership, innovation culture, and organisational performance in oil and gas industry. In terms of the practical contribution of this research, PDO management may find the framework of suggested changes useful to developing and implementing change management strategies for revising the Leadership Essentials Programme (LE) with a view to enhance organisational performance at PDO.

ACKNOWLEDGEMENT

I would like to express my sincere gratitude and appreciation to my supervisor Dr. Uma Mohan for her continuous support and professional guidance. I would like to thank the staff of Development at Petroleum Development Oman Company (PDO), who participated in this research, and special thanks to the staff of the Centre of Learning and Development at PDO, who enabled me to access the participants and collect data. I am thankful to Professor Maher Abu Hilal and Professor Mohammad Sheikh Hammoud for their valuable advice on the statistical analysis of this study, and Dr. Mohamed Habib Kahlaoui and Dr. Kirsten Hemmy for the proof reading of this study.

Very special thanks for my wife Rahma, for her encouragement and support. I feel deeply in debt to her. Special thanks also extended to my sons Ibrahim and Ahmed, and my daughters Alia, Dr. Maria, and Noor and my son in law Ashraf Al-Hinaee and my daughter in law H.H. Abeer Al-Said for their sacrifice and patience.

In loving memory of my father who put me in the pathway of life and learning, and thanks to my mother for remembering me in her prayers.

Contents

List of Tables

Chapter One

Introduction and Research Background

1.1 Introduction

Leadership development is about building legacy. The investment in making leaders learn, grow, develop and change is expected to enhance organisational performance. Oil and gas companies face many challenges to remain competitive in market. Thus, Petroleum Development Oman Company (PDO) invests in leadership development to prepare leaders who can motivate and inspire others to innovate, and to enhance organisational performance. This chapter presents an overview of the research background, and the rationale for this research. It explains the research question, aim and objectives, the research problem and research significance. Then, it provides an overview of the research methodology, and an outline of the research structure.

1.2 Research Background

Leadership development is becoming an increasingly critical and strategic imperative for organisations to promote an effective business environment that enhances organisational performance (Aldulaimi, 2018; Leskiw and Singh, 2007). Leadership development programmes provides development opportunities for existing leaders, identify potential talents, and develop them to take up leadership roles (Mercer Mettl, 2019). Building a strong leadership development programme is crucial to the development of current employees to take up leadership positions, and to prepare them for an effective future leadership team. The impact of leadership development programmes on promoting innovation culture, and enhancing organisational performance has become a significant concern for companies' investment in

business and industry (Al-Mughairi, 2018; Salas *et al.,* 2012). Global leadership development programmes are provided to improve the knowledge, skills and attributes (KSA) of employees' performance (Canals, 2012). Organisations and companies invest heavily in training and development (Mercer Mettl, 2019; Kazbour and Kazbour, 2013). The global spending on leadership development is around US$50 billion per year out of a total learning and development expenditure that is approximately US$130 billion (Paine, 2016). Yet, global investment in leadership development have increased to over $300 billion, and data of Chief Learning Office (CLO) of Business Intelligence Board reports that 94% of learning organisations plan to increase or maintain their current investment in leadership development (Kruce, 2020). However, leaders are going to loose from 40 to 80% of what they have learnt if they don't apply it in practice (Kruce, 2020).

The relationship between improving firms' productivity by building transformational leadership and establishing an innovation culture was investigated by numerous studies since the early 1980s. The impact of transformational leadership on innovation culture was examined by many studies recently (Aldhanhani & Abdullah, 2020; Almansouri & Koc, 2019; Le & Lei, 2019; Naguib & Abou Naem, 2018; Dappa *et al.,* 2019; Elrehail *et al.,* 2018; Garcia-Morales *et al*., 2008; Son *et al.,* 2020; Zhang *et al.,* 2018). Other research focused on the impact of transformational leadership on organisational performance (Rawashdeh, 2020; Atan & Mahmood, 2019; Abudaqa *et al.,* 2020; Alkindi, *et al.,* 2016; Garcia Morales *et al.,* 2008; Jiang *et al.,* 2017; Pradhan *et al.,* 2018). A positive significant impact of transformational leadership on innovation culture and organisational performance was found in these studies. Research also found a significant impact of innovation culture on organisational performance (Naranjo-Valencia *et al.,* 2016; Tanq *et al.,* 2020)

The popularity of transformational leadership might be related to its focus on intrinsic motivation and employee empowerment (Antonakis, 2012; Bass and Riggio, 2006; Bryman, 1992; Khalili, 2016; Lowe and Gardner, 2001; and Northouse, 2016). For companies to survive, growing organically by creating innovation, leaders need to build sustainable and resilient capabilities and culture (Cameron and Quinn, 2011; DeGraff and Quinn, 2007).

There are three drivers for innovation in oil and gas companies, these are increasing petroleum capacity, reducing cost, and reducing environmental impact (Jai Persaud, 2007). A positive significant relationship was found between innovation and growing revenues. Measurement, talents and finding the right innovative people and partners are the primary challenges of top managers in oil and gas companies (PWC's Report, 2013). Building a culture of innovation requires a well-defined innovation process (PWC's Report, 2013; Beswick *et al*., 2016). IBM, Institute for Business Value, investigates essential tactics to foster innovation in oil and gas industry, and it surveyed 350 industry leaders in 25 countries. Results showed that innovation is critical to respond to oil and gas challenges, innovation strategies are informed by data and analytics, leaders have a clear focus on innovation outcome, leaders engage new partners outside oil and gas business, and leaders also have strong leadership in place for successful innovation (Evensen *et al.,* 2020).

Organisational performance means the extent to which a business of organisation operates efficiently and effectively (Abubakar *et al.,* 2016). Research classify measurements of organisational performance into human resources outcomes, financial performance, operational performance, and stakeholders performance (Shaker & Basim, 2010; Adey *et al.,* 2018; Garcia-Morales *et al.,* 2008; Richard *et al.,* 2009). Oil and gas companies use many indicators to measure organisational performance. These measures include utilization of asset management, partnership, exploration success rate, production growth, technology upgrades, and health, safety, and environment (Nouara, 2015; Steven, 2008). Measures of operational

excellence in oil and gas may also include effective integration of long term and short term plans, interaction of processes, people, and system to support business, cost efficiency, and integrations of suppliers and contractors to operations (EY Report, 2015).

Leadership development programmes can be designed to improve transformational leadership skills and behaviours, innovation skills and capabilities that may enable leaders to create sustainable innovative culture that may lead to performance growth in organisations. Coaching, mentoring, feedback, and empowerment are part of some leadership development techniques that might be applied for building transformational leadership skills, establishing innovation culture and maximizing organisational performance (Alshamsi, *et al.*, 2015; Lopez, 2011).

Yet, there are many challenges that make leadership development programmes fail despite the huge investment on training and development. These challenges include overlooking context, lack of practice and reflection, lack of identifying barriers to behaviour change, and lack of measurement (Mercer Mettl, 2019; Pain, 2017; Gurdian *et al.,* 2014). It is easy to identify the required leadership skills and behaviours in training, but it is a challenge to build them into a consistent leadership culture. Thus, four types of behaviours are considered critical in developing leaders, these include: being supportive, operating with strong results orientation, seeking different perspectives, and solving problems effectively (Feser *et al.,* 2015). Yet, there is still no agreement on how to develop leaders to manifest and sustain the required behaviours (Pain, 2017). Evaluation of leadership development programmes should focus on the objectives and outcomes, facilitate learning, and should be integrated with the design and implementation (Patterson *et al.,* 2017).

Oman has undergone a period of transformative economic development since 1970 (BMI, Oman Country Risk Report, Q4 2017). The oil and gas industry has been a key driver in this process. However, oil production cuts and low oil prices have created a deficit in Oman's economy and weak GDP growth in 2017 which is expected to remain for years forcing the

government to rely on the debt and loan markets at present (BMI, Oman Country Risk Report, Q4 2017). In most developing countries like Oman, combining progress with conservatism is a challenge. The government maintains a delicate balance between preserving the traditions and culture of Oman and introducing the modernisation needed to keep pace with the changes taking place globally. However, in Oman, the persistence of social criteria (based on tribe, etc.) and authoritarian leadership styles related to out groups has continued to act as a brake on genuine leadership development (Common, 2011).

Oman Vision 2040 recognises that Oman's economy and society should not rely on oil and gas as non-renewable resources, and it should focus on innovation and knowledge. Oman Vision 2040 defines the national priorities to be achieved in the next 20 years. The vision outlines strategic directions, goals, and action plans (Oman 2040 Vision, 2019). Furthermore, sustainability issues in this industry indicate that oil is running out, oil price is going down, controlling pollution and compliance with health, environment, and safety standards is demanding, and increasing plant and projects complexity requires more creative and innovative staff. Petroleum Development Oman (PDO) is the main company in charge of the production and exploration of petroleum in Oman, and the company is aware of all these challenges. Thus, PDO builds capacity and develops leaders' capabilities that enables them to review, assess, deploy new technology, and apply continuous innovative improvement of operations to enhance PDO's performance (Albusaidi, 2020; Al-Mughairi, 2018; Al-Shidhani, 2017). Leadership Essentials Programme (LE) is a Leadership Development Programme (LDP) that contributes to building capacity and developing future leaders for PDO.

The impact of training and developments of leadership programmes on career development and organisational performance in oil and gas companies in the States of the Gulf Cooperation Council (GCC) was examined by many studies that were conducted on staff from PDO, Oman (Albusaidi, 2020; Al-Mughairi, 2018; Al-Shidhani, 2017), ADNOC, UAE (Alshamsi, 2015;

Aldhanhani & Abdullah, 2020; Abudaqa *et al.,* 2020); ARAMCO, Saudi Arabia (Aldulaimi, 2018), and KOC, Kuwait (Taqi, 2016; Jacobs & Bu-Rahma, 2012). Results showed positive relationship between transformational and the perception of organisational politics in PDO. It suggests that leadership development programmes should develop transactional leadership behaviours first, followed by transformational leadership behaviours (Albusaidi, 2020). Al-Shaidhani (2017) found that professionals on specialist career path are driven more by attitudes and motives, while those on managerial paths are driven more by the organisational support. He suggests that leadership development programmes and careers should be based on roles rather than positions as career units, which suit both professional and managerial career baths. Research conducted in ADNOC, UAE showed that effective leadership development programmes promote job satisfaction, self-confidence, high commitment, and job engagement (Alshamsi, 2015). Also, Aldhanhani and Abdullah (2020) found that organisational culture and transformational leadership have significant relationship with employee job performance. Other research conducted in ADNOC found that transactional leadership, transformational leadership, and participant leadership have positive relationship with team performance (Abudaqa *et al.,* 2020). Research conducted in ARAMCO, Saudi Arabia revealed that participants who pursued leadership opportunities indicated importance of institutional involvement in leadership development (Aldulaimi, 2018). Research conducted in KOC, Kuwait showed that on the job training is the most effective approach of leadership development in oil and gas companies in Kuwait to develop capabilities related to technical skills, business knowledge, communication skills, and change management skills (Taqi, 2016).

1.3 Research problem

PDO is realising the significance and the need for effective leadership development programmes to meet the demands for more talented and capable leaders to replace retiring existing Omani leaders as well as expatriate leaders, who are leaving as part of PDO's

Omanisation policy, the nationalization of all private and public workforce. PDO is also realizing the changes in leadership capabilities, which are driven by volatility and increased disruption in the business environment especially after the decline of oil prices, COVID-19 recovery era, and the increased demands of Oman 2040 vision for digitalization, innovation, and inspirational leaders' capabilities to enhance organisational performance.

The researcher feels that there are many gaps and challenges in the current Leadership Essentials Programme (LE) at PDO that need to be addressed in order to make it more effective. These challenges are related to lack of involvement of trainees and their departments in identifying training needs, lack of reflective learning linked to context, and lack of formal assessment and follow-up coaching support. Also, there is no research or feedback addressing to what extent the outcome of the LE Programme at PDO is improving capabilities of potential leaders to change their behaviours towards transformational leadership styles, contributing to building an innovation culture at PDO, and enhancing employees' and organisational performance.

Thus, this research attempts to fill this gap by examining through questionnaire survey the impact of leadership development programme on transformational leadership, innovation culture, and organisational performance. This research also fills the knowledge gap by conducting interviews with managers and senior staff to identify challenges related to implementation of code of practice at PDO, diversity and inclusion, innovation culture, and organisational performance. This research provides to PDO some approaches and models of leadership training as well as, actionable framework for improving innovation culture to enhance organisational performance. This research also fills the gap by contributing to practice at PDO suggested changes for LE Programme to solve the challenges as collected from interviews with trainers of LE Programme. Results of this research aim to provide PDO with

information related to the use of some tools and measurements that are useful to be considered in making changes to a leadership development programme.

1.4 Research Question

This study has one research question and three research hypotheses. The research question of this study is:

What is the impact of the Leadership Development Programme (LDP) on the growth of Transformational Leadership (TL), the development of Innovation Culture (IC), and the enhancement of Organisational Performance (OP) at Petroleum Development Oman (PDO) Company in Oman?

1.5 Research Aim

The aim of the study is to provide a framework that may be used by PDO to develop change management strategies to improve the current LDP, enhance the transformational leadership and develop innovative culture in order to enhance PDO performance.

1.6 Research Objectives

This study will aim to achieve the following research objectives:

a) To summarize the various studies related to the impact of the Leadership Development Programme (LDP) on Transformational Leadership (TL), on Innovation Culture (IC) and on Organisational Performance (OP).

b) To evaluate the impact of Leadership Development Programme (LDP) on developing Transformational Leadership (TL), on building Innovation Culture (IC), and on enhancing Organisational Performance (OP) at PDO.

c) To recommend a framework to develop and implement change management strategies for revising the Leadership Development Programme (LDP) with a view to enhance Organisational Performance (OP) at PDO.

1.7 Significance of the Research

Results of this study provides an opportunity for the management of PDO Company to focus on the required leadership skills that enhance PDO's performance and connect more closely the leadership development programme with PDO's business strategy. Rapid technological change internationally has led global business to (VUCA) volatile, uncertain, complex, and ambiguous situations of new markets. Organisations need good leaders who can transform their organisations to generate growth and stay competitive (Paine, 2017; Wichert, 2018). Thus, this study is significant to PDO to seek greater agility and to respond to changing market conditions and to PDO's customers, contractors and provider requirements.

Also, this study is significant for PDO to evaluate the effectiveness of the leadership development programme to deal with gaps in the talent pipeline, and to meets the demands for more capable leaders to replace retired existing Omani leaders, and expatriate leaders who are leaving as part of Oman and PDO's policy to nationalise the workforce, and PDO's line of succession plan. Based on Oman's 2040 Vision of diversification of national economy and less reliance on oil, and due to the Royal Decree issued in August 2020 which transformed and converted the Ministry of Oil and Gas to the Ministry of Energy and Minerals, there are more demands on PDO for preparing potential leaders who are capable of promoting innovation culture in energy, and who are capable of navigating through challenges in unpredictable business situations. This study provides PDO with indicators of how to link a leadership development programme to build and promote positive innovation culture, and how to measure organisational performance.

Potential outcomes of this study could be of benefit to the following departments at PDO: the Centre of Learning and Development (L&D), the Human Resources Department (HR), and all

other departments at PDO. Potential outcomes of this study could benefit employees, trainers, coaches and mentors at PDO.

Leadership development programmes are expected to acknowledge the required training needs and various interests of leaders and their organisations to build up their leadership capabilities, skills, and attitudes. Hence, this study may benefit employees to improve their current leadership capabilities, knowledge, skills, and attributes that they need to improve in relation to transformational leadership skills, innovation culture, and organisational performance. Centre of Learning and Development (L&D) may benefit from the suggested model of change management strategies for modifying the LE Programme at PDO especially in identifying training needs, and using some suggested models of reflective experiential learning.

Thus, PDO's HR department can make use of this research to find out the impact of including in the LE Programme, transformational leadership skills, and innovation culture to measure its positive impact on staff retention, job satisfaction, and overall productivity of employees.

This is the first study that measures the impact of the leadership development programme on developing transformational leadership, building innovation culture, and enhancing organisational performance in the oil and gas industry in Oman. The findings of this research may benefit other oil and gas companies, which aims to improve its leadership development programmes, and to assess the effect of leadership development programmes on transformational leadership, innovation culture, and organisational performance.

The researcher has a personal interest and personal motivation in the topic of this research. The researcher has 30 years of teaching and management experience in higher education. The researcher have taught many courses and workshops in leadership development after completing his PhD from the USA in 1996, and have worked as a lecturer, Director General of Colleges of Education and Colleges of Applied Sciences in Oman, Chair of Board of Governors at Arab Gulf University in Bahrain, Advisor to the Minister of Higher Education in Oman, and

Cultural Attaché diplomat in Oman embassy in UK looking after sponsored Omani students in UK and Europe including PDO students. The researcher plans to establish his own training centre of higher education services that provides consultations to organisations and companies seeking to improve leadership development programmes.

1.8 Overview of the Methodology

To achieve the research objectives, and to answer the research question, and to test the research hypotheses, the research methodology of this study encompassed research philosophy, research design, research approach, research strategy, and methods of data collection. It adopts pragmatism research philosophy, a mixed quantitative and qualitative research design, a deductive and abductive research approach, a survey questionnaire, and interviews for research strategy, and mixed methods of data collection from questionnaire and two types of interviews. Pragmatism research philosophy is adopted in this research because it aims to implement practical solutions to the context of PDO. Pragmatism research philosophy considers and applies all research theories, hypotheses and results to practical work contexts. In other words, pragmatism philosophy is associated with reality and successful implementation of ideas and knowledge (Kelemen and Rumens 2008; Saunders *et al.*, 2019).

The research design or strategy of this study identifies the research problem, determines purpose, identifies the main research question, sets three hypotheses to be tested, selects research methods and determine outcomes and timetables. All those steps were considered in the proposal of this research design. This research applies a mixed research design using quantitative (questionnaire survey) and qualitative research (interview). A questionnaire was developed by the researcher based on research in literature to assess the effect of the Leadership Development Programme on Transformational Leadership (Bass and Avolio, 1994; Khalili, 2016), Innovation Culture (Beswick *et al.*, 2016; Degraff and Quinn, 2007; Goffin and Mitchell, 2010; and Schneider, 2017), and Organisational Performance (Garcia-Morales *et al.*,

2008; Homburg *et al.*, 1999; Kusunoki *et al.*, 1998; and Tordo, 2011). Interviews are used in this study to collect details about the challenges of the current Leadership Development Programme (LDP) and the suggested changes to recommend a framework to develop and implement change management strategies for Leadership Development Programme (LDP) with a view to enhance Organisational Performance (OP) at PDO.

This research applies a combination of both deductive and abductive approaches because in the deductive approach, it applies the quantitative method using a questionnaire to test three hypothesis about the effect of leadership development on transformational leadership skills, innovation culture and organisational performance. In addition, the abductive approach is also applied because this research uses a qualitative method through interviews to induce general inferences from the comments about suggested recommendations to improve the current leadership development programme. The content analysis of the interviews identifies themes and patterns to recommend a framework to develop and implement change management strategies for Leadership Development Programme (LDP) with a view to enhance Organisational Performance (OP) at PDO.

Before the data collection stage, both questionnaires and interviews were piloted, and validity and reliability tests were carried out. Some modifications and changes were made to the final versions of the questionnaires and interviews. Two samples of questionnaires were selected in coordination with the Centre of Learning and Development at PDO consisting of 250 LE Programme graduates (Experimental Group) who competed the programme, and 250 staff, who had not yet joined the programme (Control Group). Yet, valid respondents were only 104 from experimental group, and 76 from the control group. Also, the total sample of first type of interviews was 20 managers and senior staff, and only interviews were conducted with 12 of them. The second type of interview was made with the only two trainers on LE Programme at PDO. For statistical data analysis of the survey questionnaire, alpha Cronbach was used to test

validity, EFA and CFA were used to test reliability, and multivariate ANOVA was applied to test the three hypotheses using SPSS software. Template analysis technique was used to analyse data from interviews.

1.9 Research Report Structure

This study composes of six chapters, the first chapter presents the introduction including the research's background, rationale and justification, significance, question, aims, objectives, hypotheses, conceptual framework, and structure. Chapter two reviews the literature, and illustrates concepts, models, approaches, research related to leadership development, transformational leadership, innovation culture, and organisational performance. It also provides an overview about Oman and the context of PDO. Chapter three explores the research methodology for this study, and justifications for selecting specific research philosophy, research design, research approach, instruments and methods of data collection.

Subsequently, chapter four presents findings of research data from the questionnaire and interviews. Research question was answered, and hypotheses were tested. Chapter five focuses on discussions of results by relating it to each research objective, literature and implications to stakeholders. Finally, chapter six summarizes the research conclusion, contributions to theory and to professional practice at PDO, recommendations with suggested LDP framework model, limitations of this study and suggestions for further research.

1.10 Chapter Summary

This chapter has explored the research background and its organisational context. It has explained the rational, justifications, and significance of examining the impact of leadership development on transformational leadership, innovation culture, and organisational performance in oil and gas company (PDO) in Oman. This chapter also highlighted the research question, aim and objectives, and research methodology. It has outlined the research structure and brief description of the focus of each chapter of the study.

Investment of organisations in Leadership development have increased globally to promote an effective business environment that enhances organizational performance. Leadership development programmes focus on transformational leadership skills that stimulate intrinsic motivation, promote employee empowerment, and build sustainable and resilient capabilities of innovation culture through a well-defined innovation process. Oil and gas companies use indicators of effectiveness and efficiency to measure organisational performance such as utilization of asset management, partnership, exploration success rate, production growth, technology upgrades, and health, safety, and environment. Yet, many leadership development programmes fail due to challenges related to overlooking context, lack of practice and reflection, barriers to behaviour change, and lack of measurement. Leadership development programmes should focus on developing leaders to manifest and sustain behaviours such as being supportive, operating with strong results orientation, seeking different perspectives, and solving problems effectively. Transformative economic developed since 1970 was noticed in Oman due to the discovery of oil and gas. However, oil production cuts and low oil prices have created a deficit in Oman's economy and GDP growth since 2017. Oman vision 2040 recognises that oil and gas are non-renewable resources and national priorities of Oman's economy should focus on building capabilities of innovation and knowledge. PDO is the main company in charge of the production and exploration of petroleum in Oman. It builds capacity and develops leaders' capabilities that enables them to review, assess, deploy new technology, and apply continuous innovative improvement of operations to enhance PDO's performance. Leadership Essentials Programme (LE) is a leadership development programme provided by PDO that contributes to building capacity and developing future leaders for PDO. Yet, the researcher feels that there are many gaps and challenges in the current Leadership Essentials Programme (LE) at PDO that need to be addressed in order to make it more effective. The next chapter reviews the literature related to the impact of leadership development on

transformational leadership, innovation culture, and organisational performance in all industries in general, and in the oil and gas industry in particular.

Chapter Two

Literature Review

2.1 Introduction

This chapter presents a review of existing literature on the themes of leadership development programmes and their impact on transformational leadership, innovative culture, and organisational performance in general, and in the context of oil and gas in particular. It also reviews the research on how transformational leadership and innovative culture have an impact on organisational performance. The literature review of this chapter consists of four parts, the first part focuses on the concept and evolution of leadership, the difference between leader development and leadership development, and the difference between leadership development and management development. This part explores some approaches, practices, and models of leadership development programmes.

The second part deals with transformational leadership, its concept and definitions, the difference between transformational leadership and transactional leadership, factors of transformational leadership, and research about the effect of transformational leadership on organisational performance. Subsequently, the third part discusses issues related to the concept of innovation, the concept of culture, and the types of innovative cultures. Findings of previous research about the connection between factors related to leadership development programmes, transformational leadership, innovative culture, and organisational performance will be presented in this section. The fourth part focuses on organisational performance, its concepts, how is it measured, and research related to organisational performance in general, and to the oil and gas industry in particular. The purpose of this chapter is to identify common themes in literature which highlight the impact of leadership development programmes on

transformational leadership, innovative culture, and organisational performance in the oil and gas industry.

2.2 What is Leadership?

There is no general definition of leadership due to various ways of previous research of conceptualizing leadership. Fleishman *et al.* (1991) noticed that there are about 65 various classifications and dimensions to describe leadership. For some it is perceived as the focus of a group process, personality perspective, an act or a behaviour, the power relationship between leaders and followers, transformational process and knowledge and skills perspectives (Bass, 1990). It is also viewed by Northouse (2016) as "*a process whereby an individual influences a group of individuals to achieve a common goal*" (p. 6).

Bass and Stogdill's (1990) view leaders as those who stimulate others to introduce positive change. They state that "*leadership is an interaction between two or more members of a group that often involves a structuring or restructuring of the situation and the perceptions and expectations of the members. Leaders are agents of change persons whose acts affect other people more than other people's acts affect them. Leadership occurs when one group member modifies the motivation or competencies of others in the group*" (cited in Okoji, 2014; p. 84-85).

O'Conner and Quinn (2004) associate leadership with accomplishing mission and vision. They define leadership as "*the collective activity of organisational members to accomplish the tasks of setting direction, creating alignment, and gaining commitment*" (p. 419). Similarly, Senge (1993) describes the leader as a designer (of purpose), a steward (of vision) and a teacher (who fosters systemic understanding). A leader designs, integrates vision, values, purpose, and systemic thinking, as a steward, a leader encourages individuals to describe their own sense of purpose and develops personal vision; while as a teacher the leader fosters learning of individuals by helping them develop a systematic understanding of the organisation's vision.

In addition, Schneider (2017) indicates that leadership is related to empowerment and customer promise. As he puts it, "*Leadership is about empowerment-creating the conditions for employees, managers, and fellow leaders to deliver on the enterprise's customer promise*" (p. 5).

2.3 Evolution of Leadership Concept

The development of the concept of leadership can be illustrated by comparing four perspectives: trait or process, appointed or emergent leadership, and how the concepts of power, coercion and management are different from leadership. Through the years, leadership was viewed as a trait perspective which suggests that leaders are born with special personal qualities and unique physical factors i.e. height, intelligence and fluency (Bryman, 1992). In contrast, leadership was described as a process that can be observed and learned from the issues that confront leaders and followers (Jago, 1982).

Furthermore, Northouse (2016) noted that leadership can be conceptualized as assigned leadership or emergent leadership. The former stems from a formal position, whereas the latter is acquired from the support of followers (Fisher, 1974; Smith & Foti, 1998; Watson & Hoffman, 2004; and Hogg, 2001). Leadership as a process requires applying both assigned and emergent roles. Northouse (2016) distinguishes between power, coercion and influence to clarify its relation to leadership. Positive and personal powers are identified. Positive power is similar to assigned leadership that comes from the formal position, whereas personal power comes from followers, who give it to the leader when they value the work. Kellerman (2012) argues that power is now shifting from leaders to followers due to the access of technology and information that has made leaders more transparent with less power. However, coercive power is viewed as "*use of threats and punishment to induce change in followers for the sake of leaders*" (Northouse, 2016, p17). This contradicts viewing leadership as a process of sharing common objectives with followers.

Despite the similarity between management and leadership and how both influence people to achieve goals, they have different concepts. Management is traditionally concerned with the processes of planning, organizing, staffing, controlling, and commanding and maintaining stability, whereas leadership focuses on creating positive change. Leaders are more emotionally involved while managers are the opposite (Northouse, 2016). Yet, Kotter (1990) argues that leadership is not necessarily *"better than management or replacement for it, rather, leadership and management are two distinctive and complimentary activities. Both are necessary for success in an increasingly complex and volatile business environment"* (cited from Koloziejczyk, 2015; p.125).

Grint (2005) provides a four-fold typology to describe approaches of leadership (WHY, WHO, WHAT and HOW). The first one assumes that leadership is associated with the position and power that the leader wins or inherits. This called the WHY of leadership. The WHO approach is related to the leader as a hero with an intrinsic leadership personality. This heroic human or great man theory was popular in the 19th century in the United States and the UK. The third approach focuses on getting results or output. This WHAT approach of leadership emphasizes the leader's achievement and outcome. The fourth approach is about the process. The HOW approach of leadership is concerned with how leaders operate in practice. However, Grint (2010) noted a fifth approach which assumes that in practice, leadership is a combination of the four types and no single model explains the concept of leadership and the decision-making process may vary according to the situation or the circumstances.

2.4 Leadership Development versus Leader Development

Research indicates that there is a difference between leadership development and leader development (Ardichvili & Manderscheid, 2008; Hart *et al.*, 2008; Day, 2000; Day, Fleenor, Atwater, Sturm, & Mckee, 2014; McCauley & Van Velsor, 2005; Oliver, Peterson, & Hess, 2007; McCauley & Velsor, 2004; Paine, 2017; Reddy & Srinivassan, 2015). Leader

development is concerned with expanding the individual capability (McCauley & Van Velsor, 2005), while leadership development focuses on the development of multiple individuals and on the interaction between leaders and the social-cultural environment of the organisation (Ardichvili & Manderscheid, 2008). This interaction requires integrating and understanding individual development in the context of others, social systems and organisational strategies, missions and goals. Velsor and McCauley (2004) define leadership development as "*the expansion of the organization's capacity to enact the basic leadership tasks needed for collective work: setting direction, creating alignment, and maintaining commitment*" (p. 18). Organisations face internal and external challenges and more demands for improving organisational performance with limited existing resources. Shared collaboration and understanding of organisational vision must be developed in leadership development programmes to face complex challenges. Velsor and McCauley (2004) emphasize that "*individuals, groups, and organizations must work collaboratively to explore, set and reset direction, create alignment, and maintain commitment*" (p. 18). Leader development is about developing interpersonal competence, while leadership development involves building and using interpersonal competence. The process of leader development has a specific period of time but leadership development is a never-ending process. Reddy & Srinivassan (2015) describe the process of leadership development as "*a dynamic process involving spanning various levels within and outside the organization, the process of leadership development is inherently interpersonal and long term in nature*" (p. 45). Leadership development is also viewed by Reddy & Srinivassan (2015) as a collective capacity and reciprocal interactive process. They define it as "*the building and enhancement of a collective capacity to lead among members of a team. This collective capacity occurs through interactions, processes, and reciprocity anchored on trust*" (p. 45).

Paine (2017) identifies some core principles of leadership development such as that it is a process not an event, it derives from context, it faces the truth, and it has a holistic approach that focuses on leadership not on leaders. Leadership development is a never-ending process that takes months and years not days or weeks. One set of needs slides into another and the focus to improve leadership skills continues year by year. These leadership needs should be derived from the context to link the gap between theory and practice, and it should reflect day to day practices by empowering leaders to make the required change. Facing reality in leadership development is reflected by identifying the current state of leadership skills and environment to start from, and by selecting what will really work in the organisation and what difference would it make if leadership were better. This will require dealing with real elements of actual frustrations of people, worst and best elements of some practices of work across the whole organisation. Leadership development is a consistent and a holistic process that recognizes collective efforts of leaders working together to achieve better organisational performance.

2.5 Leadership Development versus Management Development

The terms management development and leadership development are used interchangeably because of their overlap. Yet, Bolden (2005) notes that there is a difference between the two concepts (Bolden, 2005). Day (2001) distinguishes between leadership development and management development in relation to preparing people for managerial roles and positions beyond their current experience. He also debates that management development provides managers with the required application of knowledge and skills that enables them to try some solutions in practice on known tasks and situations in order to enhance performance. On the other hand, He defines leadership as "*oriented towards building capacity in anticipation of unforeseen challenges*" (p. 582). Moreover, Boldin (2005) emphasizes that when developing people for leadership positions contextual appreciation of the cultural and organisational

environment should be considered and integrated in the required leadership skills. Emphasis on development is the main feature of leadership rather than management. It enables individuals to reflect beyond the limitations of their job and enables them to develop the critical abilities to function between strategic and operational objectives.

Furthermore, leadership development may consists of components of typical management and self-development programmes such as time management, project management, and delegation but with the objective of critically reflecting upon daily practice and experience. Boldin (2005) also argues that leadership development programmes should not be provided to only senior managers but should target all organisational levels to enhance both individual and collective capacity. However, the individual differences of job positions and level of experience among participants in the same leadership development programme may prevent some from applying what they learn in practice and it may affect the required intervention to enhance both collective and individual capacity. As Durrant (2002) puts it "*Leadership development is broader than programmes of activity or intervention. It is concerned with the way in which attitudes are fostered, action empowered, and the learning organisation stimulated*" (cited in Bush and Glover, 2004, p.19).

2.6 Approaches, Practices, and Models of Leadership Development Programmes

There are many approaches, best practices, and models of leadership development programmes. Yet, this study identifies five models, these are: coaching, mentoring, 360-degree feedback and multi-rater assessment, blended learning, and digital learning.

2.6.1 Coaching

The concept of coaching has been mentioned in literature since 1950 (Ellinger, Hamlin, & Beattie, 2008) and was widely applied in management research (Ellinger, Hamlin, & Beattie, 2007, cited in Taqi, 2016). Coaching may have various definitions depending on the purposes to which it is applied. However, Ting and Hart in McCauley and Velsor (2004) report that most

of the current definitions define coaching as a relationship between the coach and the coachee to facilitate the coachee accomplishing something in the future (Douglas and Morley, 2000; Hargrove, 2002; Hudson, 1999; International Coaching Federation, 2003; Whitemore, 1996; Whitherspoon and White, 1997).

Al-Shamsi *et al.* (2015, p. 18) cites that Douglas and Morley (2000) indicate that executive coaching is defined as "*the process of equipping people with the tools, knowledge, and opportunities they need to develop themselves and become more effective*" (Peterson, 1996). Al-Shamsi *et al.*, (2015) also indicate that Sperry (1993) reports that executive coaching involves "*the teaching of skills in the context of a personal relationship with the learner and providing feedback on the executive's interpersonal relations and skills*" (p.18). The Australian Institute of Management Western Australia (2004) appreciates the differences between coaching, mentoring, consulting, and counselling. It also recognizes the contribution of coaching as an essential part of leadership development. Boyce, Jackson, & Neal (2010) describe the leadership relationship as a mutual agreement where the coach is serving the client (coachee) and improving the clients' professional performance to their personal satisfaction. Developing trust and confidence of self-belief and self-motivation should be built in this relationship and coaching mind-set. For example, the coach believes that the coachee is capable, resourceful, and have the potential to enhance organisational performance.

Ali, Lewis and Kimberly (2010) propose that successful coaching programmes in addition to the reciprocal agreement between the coachee and the coach consists a five step system process. These are: 1) Define needs and outcomes; 2) Design coaching framework; 3) Recruit and select; 4) Train; and 5) Continuing education and support. Coaching focuses on clarifying clients' purpose and vision, and it aims to increase their awareness and responsibility. In his book, Coaching for Performance, the principles and practice of coaching and leadership, Sir John Whitmore (2017) provides a comprehensive definition of coaching. He defines it as

"*Supporting people to grow themselves and their performance, clarify their purpose and vision, achieve their goals, and reach their potential. Awareness and responsibility are increased through inquiry, purposeful exploration, and self-realization. Coaching focuses on the present and future, is a complete partnership between coach and coachee, and see the coachee as whole (not broken or needing fixing), resourceful, and able to find their own answers*" (p. 246). Whitmore (2017) also argues that learning and not teaching is the main essence of coaching since it allows people's potential to enhance their own performance.

Ting and Hart in (McCauley and Velsor, 2004) introduce a coaching framework that has three components:

1. Relationship, where the context of coaching takes place.
2. Assessment, challenge, and support (ACS), the main core of leader development model.
3. Results, the visible outcomes of the required achievement in the coaching process.

Ting and Hart believe that relationship building, leader development, and results occur simultaneously, and each one triggers and activates new activity or perspectives in others. The relationship aims to achieve the primary result of leader development and secondary results of personal and organisational performance. Rapport, collaboration, and commitment are key elements in the success of coaching relationship (Ting and Hart in McCauley and Velsor, 2004). Rapport takes place when the coachees describe their coaches as "trustworthy, open, respectful, caring, straightforward, empathic, reciprocal, non-judgmental, and holding confidence" (Ting and Hart in McCauley and Velsor, 2004, p.119). Collaboration occurs when coach and coachee share their knowledge and experience about leadership development in relation to behavioural change processes in context. Hart and Kinkland (2001) claim that to promote successful collaboration, coachees should take initiatives in structuring the coaching process, such as face to face or telephone meetings, scheduling, and assurance of confidentiality (in McCauley and Velsor, 2004). Commitment is an important part of the

coaching relationship that supports rapport and collaboration. Commitment is reflected in punctuality and good preparation for meetings and implementation of action plan.

2.6.2 Mentoring

Paine (2017) describes mentoring as a powerful way of offering support and insight of informal learning programmes to new leaders in a strong leadership organisational culture. Mentoring is implemented by creating networks and building connections between senior leaders and their junior peers beyond the formal learning sessions. It allows senior staff to test if proposed ideas, techniques and strategies are applicable and it can be transmitted further down the organisation. Taqi (2016) cited Reiss (2007) who defines mentoring as the matching of a novice with a more experienced person in the same role (Reiss, 2007). Boyer (2003) describes mentoring as a complex relationship based on a social exchange between two persons. Boyer (2003) stresses that mentors and their mentees should work together in a way that *"enhances engagement through increased relationships and guiding experience"*" (p. 26).

Nevertheless, the value of mentoring is recognized in too few organisations. Paine (2017) claims that unfortunately many key leaders regard mentoring as time-consuming and it destructs their normal work. They conclude mentoring assignment quickly, and they don't want to be involved any longer. Thus, Paine (2017) believes that mentoring can't be developed quickly and it needs to be nurtured to fit with the culture of the organisation. The mentor should act as a wise and loyal adviser, and Paine (2017) believes that "*utilizing the wisdom and experience of key staff can be enormously powerful of unifying culture and sharing values as well as good practice*" (p. 219).

The philosophy of mentoring learning is based on social learning from others through observation and modelling (Kahle-Piasecki, 2011). It is assumed that the mentee does not have knowledge and skills to accomplish the job and develops skills by observing the mentor who stimulates the learning process ((Kahle-Piasecki, 2011). Learning by observation is reworking

the old concept of apprenticeship "sitting next to Nellie" (Paine, 2017). The mentor is expected to give insight, teaches particular skills, and provides feedback on observed performance. Therefore, incorporating mentorship into leadership development programmes fosters teamwork, motivation, and enhances mentees performance (Reiss, 2007; and Solansky, 2010). Thompson (2010) suggests that the effective mentor asks challenging questions that enables mentees to expand their perspectives. Mentor is connected to mentees but does not directly line-manage them. He challenges them with penetrating insights. Although there are many benefits of mentoring in relation to leadership, Paine (2017) sums up the following three general benefits:

a) "gives the individual the opportunity to discuss leadership issues with someone who really understands the industry, the company, and understands leadership;
b) offers good advice and guidance from a perspective of knowledge and success in that organisation;
c) Helps focus the mentee's career aspirations and suggests ways that the mentee can become more effective as an emerging leader in the company" (p. 220).

Furthermore, many issues needs to be considered in achieving effective mentorship. For example, although the mentors assume the role of experts, they do not necessarily have all the answers. They offer advice and they generate new perspectives. Also, it is better to conduct the meeting in an informal location rather than the mentor's office and the agenda should be set by the mentees who should prepare issues and questions they wish to discuss. In addition, the mentor should sum up what has been agreed and what specific actions have been noted and the required work for the next session. Unlike coaching where answers are provided by the coach, the mentor challenges the mentees thinking to encourage them to gain insight and to make decisions in order to stimulate their learning. When a mentee is encouraged to come up with a

decision rather than being told what to do, it makes the learning experience and the outcomes better understood and implemented (Paine, 2017).

2.6.3 360-Degree Feedback and Multi-Rater Assessments

These surveys of assessment and feedback are used to collect views from different levels of co-workers, customers, and suppliers about a manager's performance. The use of 360-degree feedback and multi-rater assessments are significant elements of leadership development (Burgoyne *et al*., 2004; Eid *et al*., 2008 in Taqi, 2016). The participant who is being assessed selects various raters in the organisation to answer some questions about his or her performance. The survey focuses on the participant's skills, behaviour, and leadership effectiveness within the organisation (Chappelow, in McCauley and Van Velsor, 2004). Subsequently, the data is analysed by a facilitator who explains the results to the participant, who in turn should use it to establish a development plan that enhances the participant's performance. Zachmeier and Cho (2014) report that Kuchinke (2000) indicates that feedback is a main factor of any learning process, and it improves self-awareness of leaders about the required change of behaviour that should targeted in to a leadership development plan (Taqi, 2016).

However, research reveals that there are some challenges that coaches face in using 360-degree feedback interventions (Craig & Hannum, 2006; Fleenor, Taylor, & Craig, 2008, cited in (Nowack and Mashihi, 2012). Furthermore, the research of Morgeson, Mumford, and Campion (2005), classify the 360-degree feedback into 27 questions that focus on practical applications. Also, Nowack and Mashishi (2012) review the work of Fleenor, Taylor, and Craig (2008) suggest 15 practical questions that should be considered in applying the feedback. Yet, despite the practical challenges of the application of 360-feedback, it remains most effective when integrated within a leadership development programme (Çimer *et al.*, 2013; Mason *et al.*, 2014; cited in Taqi, 2016). Chappelow in (McCauley and Van Velsor, 2004) state "*An effective 360-*

degree feedback instrument is more than simply a tool; it is a process to foster focused, sustained behavioral change and skill development" (p. 84).

2.6.4 The 4MAT Learning Model

Bernice McCarthy's 4MAT learning model (1996) is a helpful guide for the design of challenged-based learning experience. There are four steps in the 4MAT learning model that invoke L-mode cognition or thinking (language, logic, sequential analysis, and stepping back from the flow of the experience) and four invoke R-mode cognition or thinking (patterns, emotional intelligence, nonverbal perception, and being exposed to a current real project (Palus & Horth, cited in McCauley & Velsor, 2004). Table 2.1 presents the 4MAT learning model, and figure 2.1 explains the 4MAT learning model.

Step	Primary Mode	Description
1. Connect	R	Make personal connections to the challenge by tapping into direct personal experience and by focusing and sustaining attention in a gut-level, intimate, and intuitive way.
2. Reflect	L	Step back and analyze what you see and the connections you have made.
3. Image	R	Create and explore images (metaphors, stories, pictures, scenarios) of the challenge based on your connections and reflections. Imagine future desirable states and the paths for getting there.
4. Conceptualize	L	Build (or borrow) and apply formal conceptual frameworks. Convert the metaphors to formal models.
5. Practice	L	Test the conceptual frameworks in a logical way.
6. Extend	R	Modify the frameworks and extend them into new realms by making imaginative connections, playful modifications, and intuitive leaps. This is the start of internalizing the new conceptual framework.
7. Refine	L	Refine the new knowledge by analyzing, assessing, critiquing, tightening, and formally expressing what has been learned.
8. Integrate	R	Incorporate the new knowledge into the broader systems of collective knowledge and practices (the organization) and personal knowledge and practices (self-identity).
Now repeat the cycle starting at 1 with this new level of integration.		The 4MAT cycle keeps repeating. It works simultaneously at different scales. It may, for example, be completed during a single meeting for one aspect of a challenge while taking a year for the whole of the challenge.

Table 2.1 The 4MAT Learning Model *(Palus & Horth, cited in McCauley & Velsor, 2004, p 460)*

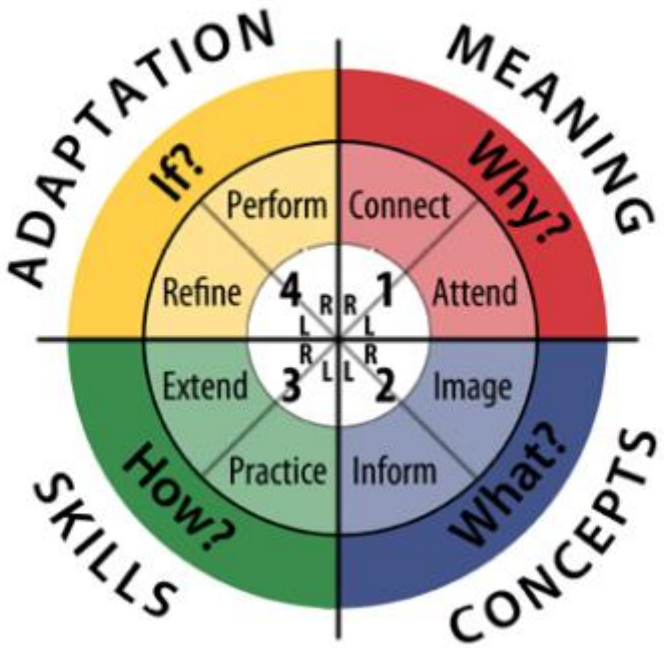

Figure 2.1 4MAT Learning Cycle *(https://tofasakademi.com/what-is-4mat/)*

2.6.5 Blended Learning

According to Shephard (2008) the blended learning approach applies a combination of e-learning and traditional practices within a different social context for learning (self-study, one-to-one, group) with the objective of enhancing learning effectiveness and optimizing delivery solution. Shephard (2008) believes that this learning approach is determined by type of participants and delivery constraints and opportunities "*It may also mix the learning media used to deliver the solution (face-to-face, online, offline, etc.) as a way to optimize the efficiency of the solution. These choices are made in response to particular learning requirements and audience characteristics, as well as practical constraints and opportunities*" (cited in Paine, 2017, p. 102). However, it is not easy to provide a mixture of training and education due to time, location, and cost constraints. Other challenges include enhancing the ability of different

learners or a group of learners to learn and the scope of the impact of their learning (Paine, 2017).

The components of a blended learning mix can be complex and challenging. For example, in two programmes of the NHS Leadership Academy professional leadership programmes (the Anderson programme leading to a master's degree, and the Bevan programme an advanced senior management programme led by KPMG consultancy company), "*Each participant has to juggle a study programme that combines online learning with work-based problem solving, face-to-face seminars, tutorials and learning sets (Bevan) or action learning sets (Anderson). Rigorous academic study needs to be set against case studies and scenarios based on the NHS where pragmatic day-to-day decisions have to be taken*" (Paine, 2017, pp. 114-115). Table 2.2 presents the components of the Anderson and Bevan leadership programmes.

Programme Element	**Function in overall aims**
Academic study	Increasing depth of understanding of leadership in a health context. Implementing best practice from around the world.
Action learning sets	Building networks, developing respect, building trust and self-healing for the organisation. Living shared values; holding members accountable for their actions.
Online resources	Access to expert content, opportunities to debate issues and seek solutions with peers. Opportunities to reflect and take considered views. Merger of theory and practice.
Face-to-face workshops	Building networks across the organisation, learning by doing, observing good and poor practice. Looking at systemic issues. Seeing big picture. Listening to health experts and share top expertise. Focusing on group work.
Tutor support	Focusing on individual responsibility and individual competence. Challenging the individual to take ownership of his or her own learning, clear understanding of the bigger picture. Ensuring changed behaviour is supported.
Simulations	"As is" experience; practicing in safe environment, understanding alternative perspectives. Operating in real time. Learning by doing.

Table 2.2 Components of the Anderson and Bevan leadership programmes (Paine, 2017, p 121)

2.6.6 Digital Leadership Development

Digital leadership is defined as *"the accomplishment of a goal that relies on ICT through the direction of human assistants and uses of ICT*" (Husing *et al.*, 2013, In De Waal, *et al.*, 2016, p. 53). Also, El Sawy *et al.*, (2016) define digital leadership as *"doing the right things for the strategic success of digitalization for the enterprise and its business ecosystem"* (P. 142). Digital leadership development programmes mean converting each conventional component into digital form, for example, a seminar into a webinar and face-to face lectures into e-learning courses (Paine, 2017). However, Auricchio's (2015) research investigates the possibility of this shift, and the speed at which it would replace more conventional learning models in Executive Leadership Programmes. The study concludes that the lag in the adoption of blended learning as model for corporate leadership development is due to preconceptions about online learning. It also shows that affording a blended learning model does not support the needs of executives and the objectives of their development.

Furthermore, French consultancy Capgemini (2016) suggests an alternative model of digital leadership development (from virtualization to digitization) that transforms learning experience by exploiting the existing communication technologies to build up digital learning materials that are similar to what has happened before. This occurs in two processes, the first process is virtualization "*translation from one mode to another*", and the second process is digitalization "*the transformation of the learning process*" (Capgemini, 2016). Furthermore, Capgemini (2016) breaks up the transfer from virtualization to digitization into five processes. These shifts are:

1) From e-learning model to developing digital and social learning framework.
2) From content creation to delivery.
3) From the concept of "massification" to the concept of "personalization".

4) From the individual to the model of the organisation.
5) From putting content online to use the connected nature of digital experience to build strong learning communities.

Table 2.3 explains the features of Capgemini's five processes of transfer from virtualization to digitization.

Process	**Feature**
1 From e-learning model to developing digital and social learning framework	Looking at what was the existing (face-to-face) and (e-learning format) course content of the session was trying to achieve and rebuilding it using new approaches and exploiting opportunities for social learning.
2 From content creation to delivery	Focus on what learners need, and when, interaction with business, and the experience of the leader.
3 From the concept of "massification" to the concept of "personalization"	Tailoring what is on offer to the specific, and possibly unique, needs of each leader
4 From the individual to the model of the organisation	Courses and curriculum should reflect the existing organisational structure, and the holistic perspective of the company's culture and strategic objectives.
5 From putting content online to use the connected nature of digital experience to build strong learning communities.	Build strong online learning communities, and develop teams that cooperate, share their learning, and co-create the experience.

Table 2.3 Features of Capgemini's five processes of transfer from virtualization to digitization, Capgemini, 2016, p 18).

Due to cost constraints, many organisations are locked into "translation" mode as Auricchio's (2015) research suggests. This means using old models of learning and digitizing the content to access more people in less time. However, the real opportunities as Capgemini (2016) reveals could be exploited in "the process of transforming the learning experience, bringing learning closer to the workflow, and being able to instantly accommodate the needs of the learner" (Paine,2017, p. 132).

2.7 Why Do Leadership Development Programmes Fail?

There are many reasons that can be attributed to the success or failure of leadership development programmes. Gurdijan *et al.,* (2014) diagnosed four mistakes made by training providers that explain why leadership development fails, and how to avoid these mistakes. These are: 1) overlooking context, when too many training initiatives are provided to everybody in a short time regardless of organisational strategy and culture. They suggest that matching two or three specific leadership skills and traits to the context would be more effective; 2) lack of practice and reflection from real work experience, and they suggest that a leadership development programme should be embedded to real work, and trainees should reflect and practice new approaches in real projects through experiential learning; 3) lack of investigating barriers to behaviour change, and they suggest that training institutions and organisations should be confident to identify beliefs, assumptions, and feelings that cause resistance of behaviour change; and 4) lack of measurement, when many training institutions don't apply some useful techniques such as 360 degree feedback to compare and measure the impact of training before and after the programme. They suggest that it is very important to monitor and track the graduates' career development after training, and to get more feedback to improve the programme.

2.8 Transformational Leadership

This approach to leadership has become popular and it has been the focus of research since the early 1980s. Northouse (2016) reports that it was introduced and developed through the publications and contributions of Downtown (1973), Burns (1978), Bass (1985), Bennis and Nanus (1985), and Kouzes and Posner (1987). Also, Northouse (2016) notes that research in factors of transformational leadership gives more attention to charismatic leadership (Bryman, 1992; Lowe & Gardner, 2000), intrinsic motivation and follower development (Bass and Riggio, 2006). Kim and Yoon (2015) note that research shows that transformational leaders create innovation-focused organisations by motivating their staff to perform at their best (Ancona & Caldwell, 1987; Elenkov & Manev, 2005; D. I. Jung, Chow, & Wu, 2003; Shamir, House, & Arthur, 1993; Waldman & Bass, 1991; Waldman, Bass, & Einstein, 1987; Wright *et al.*, 2012) and by stimulating followers to be creative (Sosik, Avolio, & Kahai, 1997). This part of the thesis discusses the concept of transformational leadership, transformational vs. transactional leadership, factors of transformational leadership, research related to transformational leadership, and the last section is about research of transformational leadership in the oil and gas industry.

2.8.1 What is Transformational Leadership?

Research about definitions and components of the process of transformational leadership reveal that they have similar perspectives and components. Transformational leaders have the ability to stimulate and inspire followers to achieve results that are beyond expectations. This capability is generally based on three personality characteristics which include charisma; individual attention; and intellectual stimulation (Bertocci, 2009, cited in Jauhar *et al.*, 2017).

Khan and Ismail (2017) report that the process of transformational leadership occurs when "*leaders and supporters make one another to progress to a more elevated level of moral and*

inspiration. Through the power of their vision and identity, transformational leaders have the capacity to motivate followers and to change desires, discernments and inspirations to work towards basic objectives" (p. 1). Mackie (2014) indicates that transformational leadership is "*the process whereby leaders engage and influence their followers toward attaining a shared vision through their capacity to inspire, innovate and personalize their attention*" (p. 118). In other words, transformational leaders are described as being "*capable of motivating followers to transcend their self-interests to accomplish collective goals*" (Bass, 1985, cited in Hargis *et al.*, 2011, p. 54).

It seems from the above definitions that the process of transformational leadership has common important motivational, moral, and visionary factors between leaders and followers to influence change and to achieve goals. Yet, this thesis adopts the following definition of Northouse (2016) that describes transformational leadership as the process that incorporates charismatic and visionary leadership to influence, change and transform followers by assessing, motivating, and satisfying their needs, and by considering human emotions, values, and ethics to enable them to accomplish their long-term goals. It is a process of interaction between the leader and followers which leads to an increase of motivation and morality for both of them.

2.8.2 Transformational vs. Transactional Leadership

Scholars have distinguished between transformational and transactional leadership especially in the exchange that happens between leaders and their followers (Breevaart *et al.*, 2013; Burns, 1978, cited in Northouse, 2016; Hamstra *et al.*, 2013; Hargis *et al.*, 2011; Jauhar *et al.*, 2017; Mackie, 2014). A transformational leader communicates with others and builds a relationship that enhances the level of morality and motivation in both the leader and follower. Also, transformational leaders are attentive to the needs of followers, and they help them to reach their fullest potential (Northouse, 2016). Transformational leaders prefer open cultures, organic structures, adaptable systems and flexible procedures. Thus, they seek to encourage creativity,

change, experimentation and risk-taking (Berson *et al.*, 2006; Mittal and Dhar, 2015, cited in Baškarada *et al.,* 2017). Transformational leadership, unlike transactional leadership, stimulates innovation, and knowledge and enhances organisational performance (Howell and Avolio, 1993, cited in Garcia-Morales *et al.,* 2008). Transformational leaders promote effective communication networks, trust, and sharing of knowledge and generation of knowledge slack (Senge, 1990; Slater and Naver, 1995; cited in Garcia-Morales *et al.,* 2008).

Transformational leadership creates a culture of business based on strategic flexibility, commitment and stewardship (Eddleston, 2008, cited in Busaibe *et al.,* 2017). Yet, the transformational styles of leadership used by men and women are noted not to be the same. Women tend to use leadership to cultivate employees' skills and nurture good relationships, whereas men have been shown to demonstrate a stricter and sometimes more threatening leadership style (Hodigere and Bilimoria, 2015, cited in Busaibe *et al.*, 2017).

Podsakoff *et al.*, (1990) identify six key behaviours of a transformational leader: 1) articulate a vision that inspires followers about the organisation's future; 2) provide an intellectual stimulation that motivates and challenges employees to take different views on tasks and to rethink the way the job is done; 3) provide an individualised support that focuses on the employees' emotional feelings; 4) act as a role model for the employees; 5) expect high performance of their employees; and 6) foster the acceptance of group by promoting cooperation amongst employees to obtain a shared goal (Podsakoff *et al.*, 1990; cited in Khalili, 2016). Transformational leadership focuses on four factors that improve the performance of followers and develop followers to their fullest potential (Avolio, 1999; Bass & Avolio, 1990; Kuhnert, 1994; cited in Northouse, 2016). These factors are: 1) idealized influence (charisma), which has the emotional component of leadership; 2) inspirational motivation; 3) intellectual stimulation; and 4) individualized consideration.

In contrast, the transactional leadership model focuses on rewards and promotions reciprocal relationship between leader and follower. For example, transactional leadership behaviour is exhibited when politicians gain votes by making promises not to introduce new taxes, managers promote staff who exceed their goals, and teachers give students grade for their final work (Northouse, 2016). Transactional leaders generally like closed cultures, mechanistic structures and formal systems and procedures (Vera and Crossan, 2004; Shrivastava, 1983; cited in Baškarada *et al.*, 2017). Transactional leadership focuses on two factors (Avolio, 1999; Bass & Avolio, 1990; Kuhnert, 1994; cited in Northouse, 2016): 1) contingent reward (exchange process between leaders and followers); 2) management-by-exception (active and passive) that involves corrective criticism, negative feedback, and negative reinforcement (Kuhnert, 1994; Kuhnert & Lewis, 1987; cited in Northouse, 2016). Antonakis *et al.* (2003) distinguish between active and passive monitoring pattern. The former is described by the leader's continued observation of followers to ensure that agreed-upon standards of performance are met. In contrast, in the latter, leaders only intervene when mistakes have already occurred (Antonakis *et al.*, 2003, cited in Hargis *et al.*, 2011, p. 55).

Baškarada *et al.*, 2017 compare the impact of transactional and transformational leadership styles on exploratory (discontinuous) and exploitative (incremental) innovation. Studies argue that the connection between transformational leadership and irregular innovation may be more complex (Keller, 1992; Jaussi and Dionne, 2003; Jung *et al.*, 2003; Elenkov *et al.*, 2005; Rosing *et al.*, 2011). However, Bass (1985) believes that transactional and transformational leadership are complementary, and both leadership styles can be connected to the accomplishment of goals and objectives (Kim and Yoon, 2015). Yet, most research has more interest in measuring the impact of the factors of transformational leadership on performance.

2.8.3 Factors of Transformational Leadership

The following section elaborates on the four factors of transformational leadership. These factors are: 1) idealized influence or charisma; 2) inspirational motivation; 3) intellectual stimulation; and 4) individualized consideration.

2.8.3.1 Idealized Influence or Charisma

This emotional factor of leadership describes leaders who act as strong role models for followers (Antonakis, 2012). Followers identify with charismatic leaders and want to act like them in terms of ethical and moral conduct, and aiming for high standards. These leaders provide clear vision and mission to their followers, which in turn makes the leaders highly trusted and respected by their followers (Northouse, 2016). The leaders raise emotions and a sense of pride and faith within the followers, when they provide them with a clear vision and mission. Leaders gain respect and trust by setting high standards for competition. This act encourages excitements among both leader and team members (Jauhar, *et al.*, 2017).

To explain how leaders gain respect and trust from followers, Tatum and Fogle (2016) describe transformational instructors who serve as role models to their students as "*They clearly articulate their values and beliefs and embody them in their everyday actions. By doing this, these instructors build an atmosphere of trust and respect for their students*" (p. 31). Northouse (2016) notes that two components are used to measure the idealized influence. These are "*an attributional component that refers to the attributions of leaders made by followers based on perceptions they have of their leaders, and a behavioral component that refers to followers' observations of leader behavior*" (p.167).

2.8.3.2 Inspirational Motivation

In this factor, high commitment and shared vision in the organisation are accomplished when leaders communicate high expectations to followers who become highly motivated, inspired, and committed. Inspirational motivation leaders enhance team spirit by applying symbols and

emotional petitions towards stimulate team work to concentrate their work towards shared group achievement (Jauhar *et al.,* 2017; Northouse, 2016). Similarly, Breevaart *et al.,* (2014) refer to inspirational motivation behaviour as "*creating and communicating an appealing vision of the future and to the leaders' own optimism about this future*" (p. 140).

Furthermore, Hargis *et al.,* (2011) report that inspirational motivation leaders energise and motivate followers, communicate a vision, and emotional appeals that enable team members to endeavour towards goals. Kirkbride (2006) notes that two main inspirational motivation behaviours are firstly, presenting challenging and optimistic vision, and secondly, creating a unified since of mission and purpose (cited in Hargis *et al.,* 2011).

As far as coaching and mentoring are concerned, Tatum and Fogle (2016) describe inspirational motivation transformational instructors as those who "*cast a compelling vision of what students are capable of achieving. With optimism and enthusiasm, these educators set high expectations for their students to meet in the classroom, motivating them to try their hardest to succeed*" (p. 31). Northouse (2016) provides another example of an inspirational motivation leader. He views this factor as when a sales manager stimulates the sales team to work hard through communication to make them feel enthusiastic and to recognize their contribution to the growth of the company.

2.8.3.3 Intellectual Stimulation

In this factor, leaders stimulating followers to challenge the values and beliefs of themselves, the leaders, and the organisation. Leaders also stimulate followers to create and innovate solutions to improve the organisational performance. Breevaart *et al.,* (2014) believe that this factor challenges group members to reconsider some of their work approaches and to take different perspectives of solving problems in work. Team members are stimulated to critically reconsider their work values, beliefs, and assumptions, and to develop the required skills to solve problems (Hargis *et al.,* 2011). Thus, the common keywords that describes this factor in

literature are challenging existing assumptions, reframing problems, and proposing new approaches to solve problems (Bass & Avolio, 1990; Bass, Waldman, Avolio & Bebb, 1987, cited in Kim and Yoon, 2015; Chen *et al.,* 2012; Mester *et al.,* 2003, Engelbrecht, 2005, cited in Jauher *et al.,* 2017).

Intellectual stimulation coaches and mentors encourage, inspire, and challenge their students to think critically and reconsider commonly held preconceptions about some issues related what they are being taught in order to come up with new perspectives (Tatum and Fogle, 2016). Another example of an intellectual stimulation leader can be seen in the work of a plant director, who encourages employees' efforts to develop and innovate techniques to resolve obstacles that have prevented the company from increasing production (Northouse, 2016).

2.8.3.4 Individualized Consideration

This factor means that leaders recognise that every staff member has his/her own needs and abilities. It is related to promoting supportive environment that responds to the individual needs of followers. Leaders of this factor act as advisers and coaches who listen carefully to their team members and care for their individual needs. Leaders delegate power to enable team members to develop leadership skills through individual challenges (Northouse, 2016). The individualized consideration factor emphasises leadership behaviours that are intended to meet the needs of individual followers and inspiring them to develop their full potential in the search of challenging goals (Avolio, Bass, & Jung, 1999; Bass & Avolio, 2000, cited in Hargis *et al.,* 2011). In addition, the individualized consideration leader recognises every team member's uniqueness. The leader aligns the individual's need with the organisation's need and offer appropriate guidance, mentoring, coaching and guidance opportunities. Chen *et al.,* (2012; Jauher *et al.,* 2017)**.** In mentoring and coaching, Tatum and Fogle (2016) describe transformational instructors as "*sensitive to the physical, psychological and emotional needs of their students. These educators seek to understand the individual situations of each student*

within the classroom to best help them prosper" (p. 31). Some employees believe that each individual is given special care and strong affiliation by the leader. Other employees think that in this type of leader, specific instructions are given with a high degree of structure (Northouse, 2016).

Figure 2.2 reflects the results of the 39 meta-analysis research literature in the transformational leadership made by Lowe, Kroeck, and Sivasubramaniam (1996). The research findings indicated that individuals who displayed transformational leadership were considered to be more effective leaders with efficient productivity than those who demonstrated transactional leadership. The finding indicated that transformational leadership transforms followers to achieve more than their role expectation. They become stimulated to rise above their own self-interests for the interest of their followers (Bass & Avolio, 1990a cited in Northouse, 2016). Figure 2.2 presents the additive effect of transformational leadership.

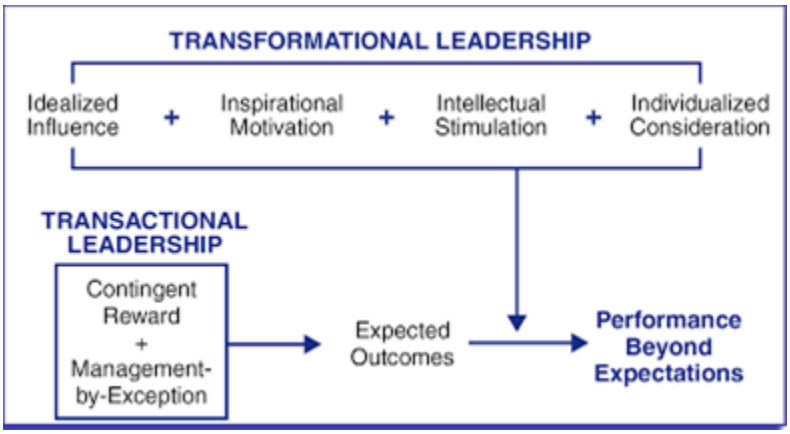

Figure 2.2 The Additive Effect of Transformational Leadership (Northouse, 2016, p 170)

2.9 Impact of Leadership Development on Transformational Leadership

Kirbride (2006) claims that transformational leadership is a developmental process that can be trained by using multiple models and techniques of leadership development such as 360-degree feedback using MLQ, structured and well planned workshops, and effective one to one coaching. Cerni *et al.,* (2010) investigate the impact of a 10-week, individually delivered coaching intervention leadership development program with a small group of school leaders. The study showed a significant increase in transformational leadership scores between the pre-test and post-test for the intervention group, as assessed by their staff, whereas the control group remained the same. They suggest that behaviour is guided by rational and experiential theory called the Cognitive-Experiential Self-Theory of behaviour (CEST). The study found that using cognitive-experiential within a coaching program that consisted of critical thinking, analytical reflection, and practicing constructive coaching have improved the transformational leadership behaviour of school principals (Cerni *et al.,* 2010). Attending workshop training and receiving constructive subordinate assessment can enhance transformational leadership (Kelloway & Barling, 2000; Kelloway *et al.,* 2000).

The impact of leadership development through executive coaching on leaders' psychological states and transformational leadership behaviour was investigated by Finn (2007). Results of collected data from 40 interviews with leaders, supervisors, and coaches indicated that LDP through executive coaching improved the trainees' transformational behaviour especially in three dimensions: individualised consideration, inspirational motivation, and intellectual stimulation.

2.10 Impact of Transformational Leadership on Innovation Culture and Organisational Performance

Research indicate that transformational leadership has a higher impact on performance than transactional leadership (Bass & Avolio, 1990; Lowe *et al.,* 1996; Nemanich & Keller, 2007;

Rowold & Heinitz, 2007; Tims *et al.*, 2011; cited in Northouse, 20016). Samad's (2012) research measures the impact of innovation and transformational leadership on organisational performance. Data was collected from 150 managers of logistic companies in Malaysia. Findings indicate that both innovation and transformational leadership have a significant impact on enhancing organisational performance. Results also indicate that the charisma factor in transformational leadership, and product or service in innovation have high influence on organisational performance. The study recommends that managers of logistic companies in Malaysia should improve skills of transformational leadership and innovation process in order to gain competitive advantage and to enhance organisational performance.

Khalili (2016) investigates the impact of transformational leadership on employees' creativity and innovation. Views of 1,172 employees from different types of industries in Iran were surveyed, adapting transformational leadership instrument developed by Podsakoff *et al.*, (1990). The results reveal positive and significant relationships between transformational leadership and employees' creativity and innovation. The study recommends that managers of companies in Iran should develop and apply the behaviours of a transformational leader. They should also encourage and sustain employees' creativity and innovation in order to enhance organisational performance.

Research conducted by Iscan, *et al.*, (2014) on 118 SMEs in Turkey examines the impact of transformational/transactional leadership on innovation and organisational performance. The short version of the MLQ form (Avolio *et al.*, 1999; Bass & Avolio, 1997) was used to test 6 items for transformational and 4 items for transactional leadership behaviours. Four items from Bono and Judge's (2003) instrument were used to measure innovation, and a 7-item measure developed by Delaney and Huselid (1996) was applied to assess organisational performance. Results indicate that transformational leadership have positive impact on organisational

performance beyond the impact of transactional leadership. Also, transformational leadership has positive impact on organisational innovation beyond the impact of transactional leadership. Al-Mansoori and Koc (2019) meaure the effect of transformational leadership on innovation capacity building of engineering colleges at two public universities (PUS) in Texas and (PQA) in Qatar. The study measures the effect of transformational leadership styles on faculty's innovative production of technical articles, patents, and sustainable development-related courses. Data from 39 faculty members from both colleges who completed the survey questionnaire was analysed. Results also were compared with Hofstede's cultural dimensions Framework, which has five work-related values based on collecting data from large multinational companies in 40 countries. These dimensions are power distance, uncertainty avoidance, individualism, masculinity, and long-term orientation. Findings showed that leaders in both colleges revealed some influences of transformational leadership; however, the scores were lower than the norm. Respondents from both universities emphasized the need for government involvement in supporting the culture of innovation. Faculty members also stressed the need for recognition and a tangible incentive system that supports efforts of faculty on projects more than technical publications.

To measure the effect of authentic and transformational leadership on innovation in higher education, and the contingent role of knowledge sharing, Elrehail *et al.*, (2018) investigate the views of 173 staff at private universities in north Jordan. Findings revealed that transformational leadership has a positive impact on process and product innovation. These result is in line with a similar study in higher education in Iraq conducted by (Al-Husseini and Elbeltagi, 2014). The findings reveal the same results of previous research by Vaccaro *et al.* (2012) and Alzawahreh (2011), which shows that transformational leadership has a positive effect on staff creativity and has the ability to change the organisational culture and promote both product and process innovation. However, the findings of the study in Jordan indicate that

authentic leadership has no impact on process and product innovation in the higher education sector in Jordan. The study suggests that academic leaders of private universities in Jordan should apply transformational leadership behaviours, and they should focus on supportive environment for innovation. They should also enhance a culture of knowledge sharing among academic staff.

Pradhan *et al.*, (2018) investigate the influence of transformational leadership on employees' contextual performance. About 480 employees of information technology have participated in the study. The result supports the hypothesis that transformational leadership has a positive impact on employees' contextual performance. However, findings also indicate that there is no significant moderation effect of integrity on the relationship between transformational leadership and contextual performance. Pradhan *et al.*, (2018) suggest that information technology in India should promote an encouraging work environment where emotional organisational commitment can influence the contextual performance.

Naguib & Abou Naem (2018) investigate the link between transformational leadership and its influences on organisational innovation. Results reveal that top management support mediates the relationship between transformational leadership and innovation input, and resource supply mediates the relationship between transformational leadership and innovation outcomes. Furthermore, both top management support and resource supply mediate the relationship between transformational leadership and the innovation process.

Alkhaja and Miniano (2019) investigate the practice of transformational leadership style in the Ministry of Labour and Social Development in Bahrain. The study attempts to find out which dimension of the four dimensions of transformational leadership was more dominantly practiced. Data was collected from 96 employees and 38 managers, who responded to a survey questionnaire. Findings showed that idealized influence was the most frequently practiced transformational leadership dimension, while inspirational motivation was the least frequently

practiced. Results also showed that years of managerial experience is not significantly related to the frequency of practice of transformational leadership dimensions. The study proposes that managers need to develop more training on the dimensions of inspirational motivation. Since some employees perceived the leaders' directions and strategies differently and, in some cases, negatively, the study suggests that it is important to raise awareness of employees and leaders to practice all dimensions of transformational leadership.

Garcia-Morales *et al.,* (2008) measure the effect of transformational leadership on organisational performance through innovation and knowledge. They investigated the perceptions of leaders in 408 Spanish organisations to find out how leader perceptions of various intermediate strategic variables related to knowledge (organisational learning, absorptive capacity, knowledge slack, tacitness,) and innovation impact the link between transformational leadership and organisational performance. Knowledge slack is prior knowledge and resources to foster training and development of new knowledge needed to develop its tasks. Absorptive capacity means the organisation has a clear division of roles and responsibilities for acquiring new knowledge. Tacitness means usual tasks for jobs in the organisation are not completely specified, and no manuals on how to develop on the job tasks. Organisational learning means how the organisation acquire and use knowledge that provided competitive advantage. Results indicated that transformational leadership has a positive influence on organisational learning, absorptive capacity, knowledge slack, tacitness, and innovation. Results also showed that organisational performance is positively impacted by innovation, organisational learning, and tacitness.

Jiang *et al.,* (2017) investigate the impact of transformational leadership on employee sustainable performance and the mediating role of organisational citizenship behaviour in the construction industry in China. A total of 389 contractors were asked to respond to a survey questionnaire. Findings showed that transformational leadership has positive significant impact

on employee sustainable performance. Findings also indicated that the impact of transformational leadership is mediated by the organisational citizenship behaviour. The research suggests that project managers need to adopt to the transformational leadership style in order to promote organisational citizenship behaviour, and to enhance employee sustainable performance.

The effect of transformational leadership on employee performance through job satisfaction was investigated by Rawashdeh *et al.,* (2020) in the telecommunication sector in Jordan. Data was collected from 278 employees in the sector. Results revealed that transformational leadership had a positive significant impact on job satisfaction and employee performance. Results also showed that job satisfaction had a significant impact on employee performance. Job satisfaction had a significant effect as a mediator variable between transformational leadership and employee performance. The study recommends the need to reinforce the transformational leadership style and it should be adopted by managers in order to enhance employee performance in the telecommunication sector.

Son *et al.,* (2020) examine the influence of transformational leadership and knowledge-sharing processes on operational and financial performance in Chinese firms. The sample of the survey questionnaire consisted of 263 respondents working in 112 manufacturing and service companies in China. The results showed that collecting knowledge and donating knowledge mediate the correlation between transformational leadership and two specific aspects of organisational performance, whereas sharing knowledge is more significantly associated with operational performance. Findings also showed that transformational leadership has a greater impact on financial performance, and sharing knowledge is more significantly linked with operational performance. The study suggests that managers of manufacturing and service companies in China should develop and practice more behaviours of the transformational

leadership style in order to motivate staff to share knowledge and behaviour that enhance organisational performance.

Atan and Mahmood (2019) explored the role of the transformational leadership style in enhancing employees' competency for organisation performance. Perspectives of 232 full-time respondents from supervisory level from the various department at three selected companies of food industries in Malaysia were collected and analysed. Findings indicated significant influence of transformational leadership on organisational performance and employee competency. The study also found a significant contribution of employee competency to organisational performance. The research proposed that the existence of both transformational leadership style and employee competency in companies are very crucial for greater productivity of organisational performance.

The impact of transformational leadership on job satisfaction in relation to gender, organisational politics and organisational commitment in private and public banks in North Cyprus was surveyed by Dappa *et al.,* (2019). Data from 400 employees were collected, and survey questionnaires were analysed. Results showed that the association between transformational leadership style and employee satisfaction was mediated by gender and the perceived organisational commitment and organisational politics. Results also found that both perceived organisational politics and perceived organisational commitment have a significant positive influence on employee satisfaction. The study suggests that bank managers should be trained to develop behaviours and practices of the transformational leadership style.

Le and Lei (2019) examine the impact of transformational leadership on process innovation and product innovation by assessing the contribution of knowledge sharing as mediating role and perceived organisational support as a moderating mechanism. A total of 394 participants at 88 Chinese companies were surveyed. Results disclosed that transformational leadership influences product innovation and process innovation through knowledge sharing mediator.

Results also showed transformational leadership and knowledge sharing impact on innovation capability through perceived organisational support. The study emphasizes the need for Chinese managers to practice a transformational leadership style, and to practices of knowledge sharing in order to enhance innovation culture capabilities.

Strukan *et al.,* (2017) explore the effect of transformational leadership on new product development and financial business performance in 127 production companies from both the private and state sector in Bosnia and Herzegovina. Data was collected from a questionnaire survey distributed to 127 managers. Results showed that transformational leadership has a statistical significant and positive influence on the financial performance, and on the new product development of the companies. Findings also indicated that managers and leaders focused their attention more on tasks than on people. The study suggests that leaders and managers of companies in Bosnia and Herzegovina need to develop skills to enable them to have transformational leadership behaviour, to have vision, to promote innovation, and to create and develop new products.

2.11 Transformational Leadership Research in Oil and Gas Industry

Shurbagi (2014) examines the link between transformational and organisational commitment in the National Oil Corporation of Libya. Data was collected from 227 employees to measure the effect of transformational leadership on three dimensions of organisational commitment: continuance, normative and affective commitment. Results point out that the leaders of the National Oil Corporation of Libya follow a transformational leadership style. Results also reveal a positive significance between transformational and organisational commitment, and affective commitment is dominant in the organisational commitment of the corporation.

The study of Jauhar *et al.,* (2017) measures the impact of reward and transformational leadership on employees' retention and job satisfaction in oil and gas industry in Malaysia. The responses of 107 employees from 13 different oil and gas companies in Malaysia indicate that

transformational leadership has a significant negative relationship with intention to resign. However, the moderating effect of job satisfaction has a significant effect on the relationship between reward and intention to resign. The study suggests that leaders in oil and gas companies should give more attention to job satisfaction, followed by rewards and then transformational leadership. In addition, the study plans of human resources in oil and gas companies should give high priorities to career planning and job retention.

Al Shamsi *et al.,* (2015) investigate the influence and relationship of independent variables coaching constructs (coaching process, trust, leadership, feedback and empowerment) and dependent variable leadership development. Data were collected from 523 employees in UAEGAS Company in United Arab Emirates. Findings reveal that coaching constructs have a positive significant relationship with leadership development. The findings support recommendations of prior research that leadership should empower subordinates and set clear expectations, provide feedback and create a climate for coaching that involves a positive trusting relationship (Ellinger, Hamlin, & Beattie, 2008; Ismail *et al.,* 2011). The study also concludes that effective leadership development programmes promote job satisfaction, self-confidence, high commitment, and job engagement (Ismail *et al.,* 2011, cited in Al Shamsi *et al.,* 2015).

Boehnke, *et al.,* (2003) compare the views of senior executives (business-unit managers, and Vice Presidents) in two major divisions (petroleum and chemicals) of a global petroleum company and from its major subsidiaries around the world. A content analysis of 145 reports from the respondents from were analysed according to six clusters of countries. These are America, North Europe, Southern Europe, Latin America, Far East, and The Commonwealth. The participants were asked to describe examples of exceptional organisational performance, and to identify the key leadership behaviours for extraordinary outcomes. Results show that the majority of the reports describe transformational leadership behaviours as exceptional

organisational performance. For example, intellectual stimulation 80%, team building and coaching 73%, and inspiring behaviours 68%. The only transactional leadership behaviour identified above 50 % was recognizing/rewarding 62%. Surprisingly, Boehnke, *et al.,* (2003) note that American identified team-building more frequently as indication of exceptional performance than Far Eastern group. The study suggests that leaders should adapt to national differences, and they should use transformational leadership behaviours to achieve exceptional performance.

Albusaidi (2020) examined the perceptions of leaders and employees about leadership styles, organisational politics, and employee performance in oil and gas industry in Oman. Survey questionnaires were sent to 184 managers, and 209 employees, and interviews were held with 27 managers and employees. Findings revealed that employees perceived that their leaders displayed transformational leadership style more often than transactional leadership style. Results also showed a negative relationship between transformational leadership and employees perceptions of organisational politics. Research also indicated positive relationship between transformational leadership and the perception of organisational politics. It also showed a negative relationship between the perceptions of organisational politics and organisational behaviour. The research suggests that the design of leadership development programmes in the oil and gas industry in Oman should develop transactional leadership behaviours first, followed by development of transformational leadership behaviours. Research also proposes that effective evaluation tools should be embedded into leadership development programmes. It also suggests that human resources at oil and gas companies need to review and reassess policies and procedures of recruitment and promotion.

The role of leadership styles in encouraging team performance in an oil and gas company in Abu Dhabi, UAE was investigated by Abudaqa *et al*., (2020). Survey questionnaires were collected from 291 employees in the company. The findings showed that, transactional

leadership, transformational leadership, and participant leadership have positive relationship with team performance. The findings also revealed that perceived organisational culture positively moderates among the relationship of transformational leadership and team performance, transactional leadership team performance, participative leadership, and team performance. Thus, the research concluded that due to the strong leadership style that motivates employees through incentives and moral grooming activities, effective high performance was found in the company. The research recommends that policymakers of the selected company should continue to increase their emphasis on the leadership styles along with the climate of the organisation that supports the financial performance of the organisation. Research also suggests that the regulators of the selected company need to review policies related to the leadership style that enhances organisational performance.

AlDhanhani and Abdullah (2020) examined the impact of culture transformational style on the employee' job performance in Abu Dhabi National Oil Company (ADNOC) in UAE. Data was collected from a survey questionnaire conducted on 450 employees from middle management at ADNOC Company. Results accepted the two hypotheses and found that organisational culture and transformational leadership have a significant relationship with employee job performance. The study suggests that the transformational leadership style should be embraced by ADNOC to enhance employees' performance.

The impact of Organisational Culture and the Relationship between Transformational Leadership and Job Satisfaction in the Petroleum Sector of Libya was investigated by Zahari and Shurbagi (2012). A survey questionnaire was distributed to 50 employees from the National Oil Corporation of Libya. Results showed that the transformational leadership style is dominant among managers of the company. Results also indicated a positive significant relationship between transformational leadership style, job satisfaction and organisational culture. The study recommends that the National Oil Corporation of Libya reinforce the

leadership style, model, approaches and direction for future development. Gopal and Chowdhury (2014) measure the impact of transformational leadership styles on employee motivation in an oil and refinery company in western region of India. Data was collected from 50 respondents to a survey questionnaire. Findings showed transformational and transactional leadership styles were dominant in the company, while employee motivation was moderate.

2.12 The Culture of Innovation

Previous studies have found a positive impact of organisational learning on incremental and radical innovations (Forrester, 2000), and that more skills and new relevant knowledge among leaders will generate more innovative products and services (Senge, 1990; Nonaka and Takeuchi, 1995; Cohen and Levinthal, 1990, Glynn, 1996; Garcia-Morales *et al.*, 2008). Many studies have demonstrated the positive effect of innovation on performance (Afcha, 2011; Damanpour & Gopalakrishman, 2001; De Clercq, Thongpapnl, & Dimov, 2011; Droge *et al.*, 2008; Ga'lvez & Garcia, 2012; Naranjo-Valencia *et al.*, 2016; Prajogo, 2006; Roberts & Amit, 2003; Subramanian & Nilakanta, 1996; Zhang, 2011). The literature about cultural values that foster innovation include many characteristics such as creativity, initiative entrepreneurial mind-set, freedom/autonomy, risk taking, teamwork, slack of resources, marketing orientation, decision making, employee participation, continuous learning and flexibility (Naranjo-Valencia *et al.*, 2016). The following part of this literature review attempts to distinguish between innovation, culture, and organisational culture. It also presents a cultural web model and a framework for building a culture of innovation. Subsequently, it focuses on reviewing research on innovation culture in oil and gas industry.

2.12.1 What is Innovation?

Goffin and Mitchell (2010) compare various sources of defining innovation as a product or a process, as the amount of new change, and as the source of change like technology or influence of social group. They refer to the views of Joseph Schumpeter in the 1930s, who defined

innovation as the introduction of a new product, new method of production, the opening of new markets, the use of new sources of supply, and the new re-structuring of an industry due to the new competition. Innovation is also defined by Porter (1990) *"to include both improvements in technology and better methods or ways of doing things. It can be manifested in product changes, process changes, new approaches to marketing, and new forms of distributions"* (in Goffin and Mitchell, 2010, p7).

Porter (1990) adds to Schumpeter's definition that innovation results from organisational learning and not just from its R&D department. However, the Organisation for Economic Co-operation and Development (OECD) suggests that there are many other steps and elements to R&D that are involved in innovation not only in industry but also to social services. The (OECD) state *"Innovation consists of all those scientific, technical, commercial and financial steps necessary for the successful development and marketing of new or improved manufactured products, the commercial use of new or improved processes or equipment or the introduction of a new approach to social service. R&D is only one of these steps"* (in Goffin and Mitchell, 2010, p8).

Innovation is also defined as *"new services and new ways of producing or delivering services as well as significant changes in services on their production or delivery"(*Djellal & Gallouj, 2001, in Goffin and Mitchell, 2010, p8). Furthermore, innovation is viewed as a social process from a psychologists' perspective. As West& Farr (1990) describe it *"the intentional introduction and application within a role, group, or organization of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, organization or wider society"* (in Goffin and Mitchell, 2010, p8). Also, Beswick, Bishop, and Geraghty (2016) define innovation as *"The successful implementation of something new or different that is affordable, accessible, and add value to the customer by solving a real problem and drives growth for the creator"* (p. 13). It can be concluded from

the above comparison of various perspectives that innovation involves introducing new commercial and a positive amount of change in products, processes, and services through technology and other sources of social groups and organisational learning to add value and growth for organisations and customers.

2.12.2 What is Culture and Organisational Culture?

Bratton and Gold (2003) define culture as *"the set of values, understandings and ways of thinking that is shared by the majority of members of a work organization, and that is taught to new employees as correct"* (in Goffin and Mitchell, 2010, p. 266). Culture is also defined as a mixture of human values and organisational policies. Beswick *et al.,* (2016) state, culture is *"The combination of leadership style, values, behaviours, attitudes and working practices of an organization's people together with the formal and informal infrastructure which makes it stick (policies, processes, systems); it's visible not only to employees but also to customers, partners and supplier"* (p. 13).

However, culture alone is not sufficient for enhancing performance, and setting clear goals and targets are important for consistent organisational innovation. Culture is also associated with identity, customer promise and it is driven by the success of business in marketplace. As Schneider (2017) puts it *"Culture is about implementation and identity. Culture means how we hire, structure, deploy, compensate, and develop our employees to deliver on our customer promise. Culture is essentially formed by what it takes for your people to fully deliver on your enterprise's customer. It is driven by the nature of your business and what it takes for you to succeed in your marketplace"* (p. 6). Tony Hsieh, CEO of Zappos online shoes selling company describe culture as follows *"Your culture is your brand. Customer service should not just be in a department, it should be the entire company"* in (Beswick, *et al.*, 2016, p15).

Furthermore, Schneider (2017) identifies four types of core cultures that are driven by the different kind of customer promise they have. These four cultures are classified as control, collaboration, competence, and cultivation. Each type of culture aligns to a different type of organisation. For example, control culture aligns to predictable and dependable type organisations; collaboration to customized organisations; competence to best-in-class and cultivation aligns to enrichment organisations. Schneider (2017) compares innovation management in control culture as a structured process for coming up with new ideas; in collaboration culture by continual brainstorming with selves and customers; in competence culture by making sure that innovative-edge thinking is constant; and in cultivation culture by inviting people to contribute to many ideas as they believe will help (Schneider,2017).

Beswick, *et al.*, (2016) also define organisational culture as *"The collective beliefs, values, attitudes, behaviours and communication style of the people who work within an organization. Unless deliberately set, or re-set, by the current or previous leaders of the organization, the culture will have been built up and modified over time from every internal and external interaction"* (p. 13). Thus, it can be concluded from the previous definitions that innovation culture can be viewed as set of announced new norms, values, systems and policies that are shared by collaborated leaders, employees and customers for the benefit of both the organisation and stakeholders.

2.12.3 Models for Building a Culture of Innovation

The following section of the literature explores two frameworks of innovation, the first is the Genome Framework that measures the current and the desired situations of organisational innovation, and the second is the Pentathlon Framework that describes the innovation process. Subsequently, it identifies six components of the desired cultural web for innovation culture in organisational paradigm.

2.12.3.1. Genome Framework

DeGraff and Quinn (2007) introduced the Genome framework that is based on the development of the Competing Value Framework (CVF). Genome is used to measure how current people, practice, and purpose enhance or react to innovation. Four-quadrant model were identified in the Genome, these are collaborate, create, compete, and control. Innovation is made in certain situations according to their performance in each quadrant and the interaction among them. Current and desired situations of organisational innovation can be measured in each quadrant. DeGraff and Quinn (2007) suggest seven stages for implementing innovation, these are synthesize; strategize; socialize; supervise; synchronize; specialize; and systemize. Figure 2.3 presents the Genome framework.

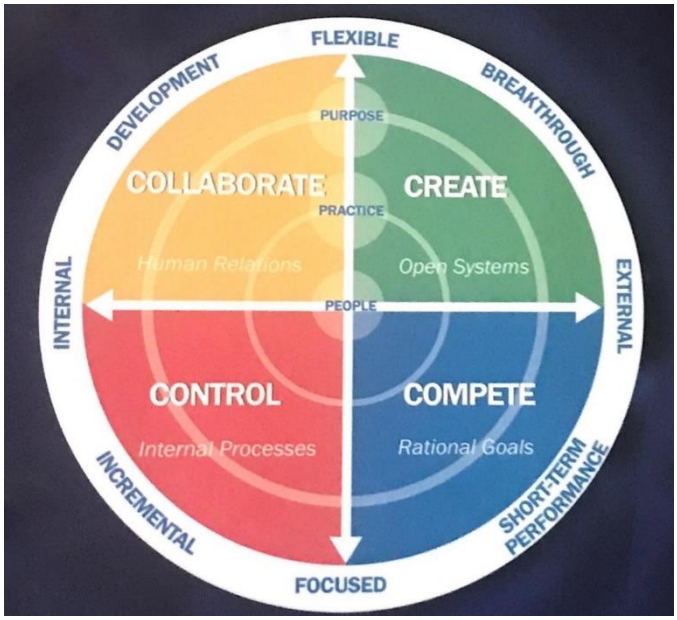

Figure 2.3 The Genome Framework (DeGraff and Quinn, 2007, p 12)

The collaborate quadrant of the innovation genome may include in the workshops, content, discussion, and reflection of leadership development programme topics related to empowering people to do together what they believe to be right for the collaborate leader such as mutual trust, integrity, and dealing with customers as part of the organisation. Discussions may also

reflect practices at PDO related to employee values and support collective learning. Reflections may also include PDO's guiding coalition to observe, advice, and teach leaders how to promote collaborative environment of innovation. Trainees need to know how to ensure that new ideas benefit the community and that partnerships and communication systems are sensitive to the abilities, needs, and ambitions of the stakeholders.

Reflections and discussion of compete quadrant in the leadership development programme at PDO may focus on how leaders of innovation challenge and motivate their employees to do things fast by articulating clear objectives and meeting customer demand. Reflections may also focus on PDO's revenue, market share, brand equity, and profitability. In addition, discussions of leadership development programme at PDO of compete quadrant of innovation include challenges related to external forces such as customers, competitors, suppliers and business partners. The create quadrant of the content of leadership development programme can focus on doing things first, and on radical and big changes, and speculating on new and emerging markets of oil and gas industry. Discussions can include how PDO drive innovative ideas, and strives to develop product and services by creating research and development department. As for the control quadrant of innovation, content of leadership development programme can include topics related to systematic view of innovation that applies continuous improvement. Discussions and reflections include how leaders apply systems, processes, policies, and procedures to make minor variations on an existing product. Reflections may cover trainees' experience of LEEN projects at PDO and control measures are applied to eliminate errors, improve quality, and cut cost and time.

2.12.3.2. The Pentathlon Framework and the Cultural Web

This Framework was created by Goffin and Mitchell who based their work on the development funnel of Wheelwright and Clark who identified three main processes of innovation: 1) idea

generation, 2) selection; and 3) implementation. Two more components were added by Goffin and Mitchell (2010) the first was strategy and the second was people and organisation. Figure 2.4 presents the Pentathlon framework.

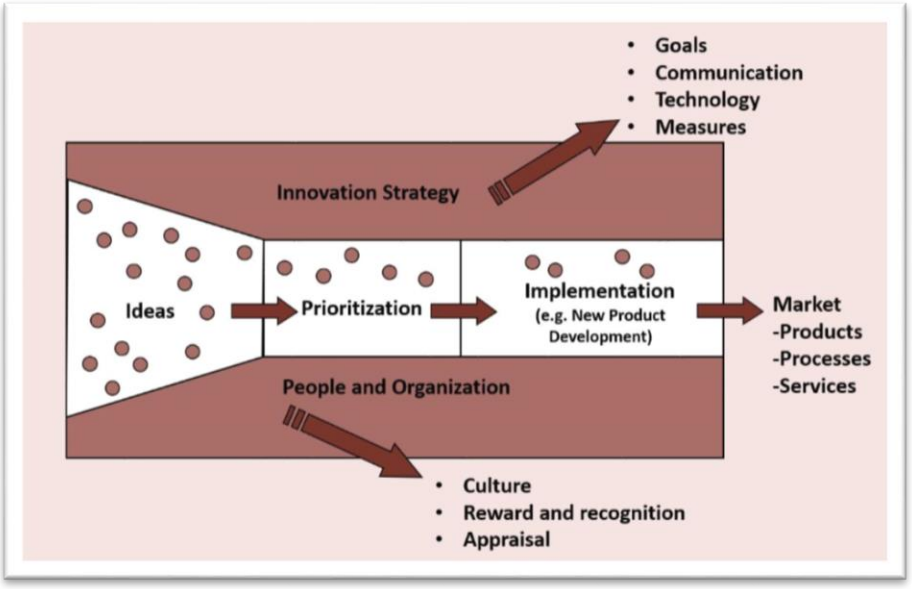

Figure 2.4 The Pentathlon Framework (Goffin & Mitchell, 2010, p 27)

It is clear from the Pentathlon framework that upon defining the innovation strategy (goals, communication, technology, and measures) ideas are generated in the organisation, and the next phase is to prioritize and select the best ideas, while the implementation phase focuses on developing new products before their final delivery to the market. Providing a good culture web, reward and recognition, and the appraisal system are important factors of innovation for people and organisation. Content, reflections, and discussion of leadership development programme at PDO may include topics related to the current innovation strategy, and how the leader make sure that the innovation strategy at PDO is relevant and understood by employees. It can include current practices of how leaders in PDO deal with challenges related to optimize production and minimize cost, enhance individuals and process safety and influence deployment of new technology.

2.12.3.3. The Cultural Web

Johnson and Scholes (1999) identify the following key components of culture to help recognize the central paradigm of the organisation (in Goffin and Mitchell, 2010). Figure 2.5 presents the desired cultural web for a manufacturer of building materials

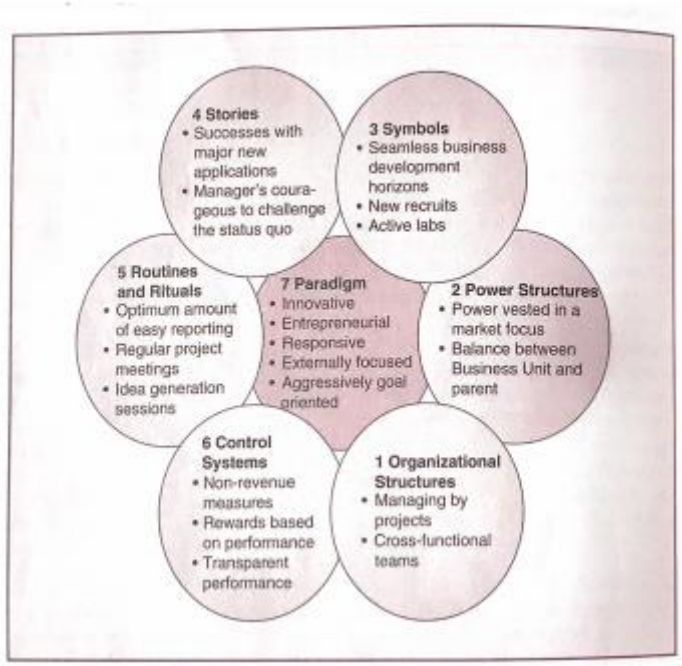

Figure 2.5 The Desired Cultural Web for a Culture of Innovation (Goffin & Mitchell, 2010, p 271)

The components of the cultural web for innovation culture in organisational paradigm are:

2.12.3.3.1 Organisational Structures.

It is based on what is important to an organisation currently and in the past, and what needs to be focused by managers to change culture. For example, a study on a building company revealed the desire to change organisational structures from the process managers (command and control) who were not adding values to a new stage gate product development process that is managed by projects and decentralized cross-functional terms. Leadership development

programme needs to include discussions related to how leaders in PDO can reorganize and align organisational structure in their departments to the changing markets.

2.12.3.3.2 Power Structures

The formal structure of an organisation can be seen as rigid and centralized and that may lead to conflicts for business units. Power structures may not be recognized in the organisation chart. For example, the R&D manager may have more power in some organisations than the marketing manager even if they are not at equivalent levels in the formal organisation. Also in an engineering company such as Hewlett-Packard, certain individuals have the real power who are not out-side the formal structure. Similarly, in an oil and Gas Company, the power structure of technical staff to contribute to innovation culture should not be underestimated. Goffin and Mitchell (2010) state *"One manager said, the parent company of being a low-cost commodity … company is at odds with a business unit which seeks to add value through the application of technical and market knowledge"*(p. 270). Therefore, power structures are vested in a market focus, and there should be a balance between business unit and parent. Leadership development programme can discuss the if the appointment of the current Chief Information and Digitization Officer is enough to deal with data strategy, and if the appointment of an analytics focal point in each directorate has the power in PDO's structure to track innovative ideas from data and articulate them at the corporate level.

2.12.3.3.3 Symbols

Organisation culture can be represented through logos, titles, dress code, office style, and company cars. Culture can also be reflected through language and terminology. Organisations need to introduce new symbols of innovation and new recruits to make a dynamic change in R&D labs, and bring new ideas for business development across the functions. Leadership development programmes may include discussions and reflections about how leaders at PDO

should introduce new symbols of innovation and how to link them to PDO's code of conduct and leadership framework and attributes that includes respect, engagement, collaboration and performance.

2.12.3.3.4 Stories

These are used to reinforce desired or positive behaviours that share folklore and capture the spirit of main events. Stories may also reinforce unsuccessful partnership that proved to be risky ventures. Stories may include board level discussions, management consultants, operational problems and successful or undesirable alliance. All these examples can be used to support innovation culture and change the status quo. Leadership development programme may invite some guest speakers from top management, analytics focal point staff, contractors, and team leaders of some new projects at PDO such as BLADE, Nibras, Al Fikr, Drone Smart Mobility and Ejad Platform to discuss their success stories and challenges related to their new product and projects based on the deployment of new technology.

2.12.3.3.5 Routines and Rituals

These can be found in the monthly reports, projects planning workshops. Meetings can also be used to generate innovative ideas. Goffin and Mitchell (2010) describe routines as "the ways employees in an organisation learn to act towards each other to process work" while rituals can be reflected by *"neophyte programmes, sales conferences, promotion criteria and appraisals*"(p. 269). Leadership development programme may include critical discussion and reflection about current monthly reports and meetings at PDO to generate innovation such as company business plan, department business plan, performance contract, business production targets and functional capability review. This may also include discussions related to building norms of sharing resources and taking risks.

2.12.3.3.6 Control Systems

These consist of measurement systems, formal processes and reward and recognition systems. Techniques or procedures that are used to generate ideas for innovation can be part of control systems. It overlaps with organisational structures and routines and rituals. Desired control systems require staff to submit time sheets and budget reports to reach revenue targets. Leadership development programme may include issues and challenges about how leaders at PDO link innovation strategy to employee development with appropriate reward and recognition system. This may include methods of performance review and improvement at PDO such as personal performance review and performance improvement plan.

2.13 Framework for Building a Culture of Innovation

Beswick, *et al.*, (2016) suggest a six stage framework for building a culture of innovation. Figure 2.6 presents the framework.

Figure 2.6 The six-stage framework for building a culture of innovation (Beswick, et al., 2016, p 2)

2.13.1 Kick off With Why?

Cultural assessment is used for four main current factors of the organisation that include leadership, management, people, and external influences. Assessing these factors enables leadership to understand which factors will drive or inhibit change. Figure 2.7 presents the cultural consultancy organisational culture assessment.

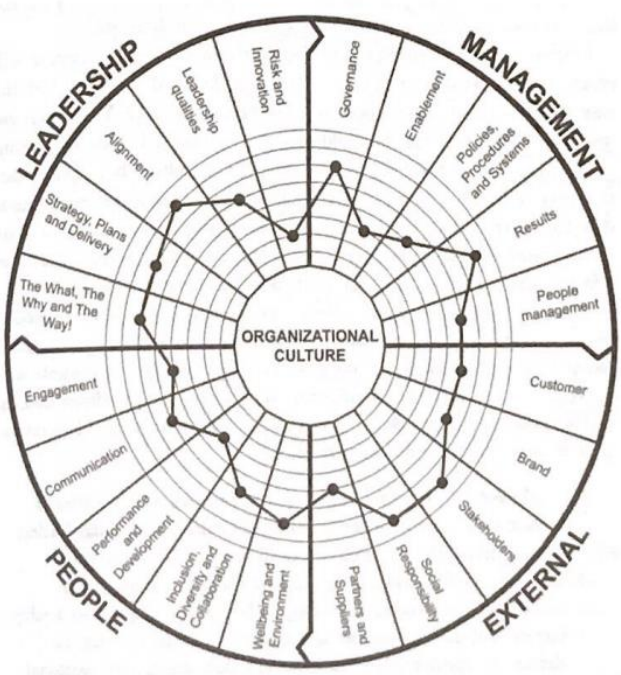

Figure 2.7 The Culture Consultancy Organisational Culture Assessment (Beswick, et al., 2016, p 39)

It is clear from the figure 2.7 that each of the four main factors of the Cultural Consultancy Organisational Assessment covers five attributes, and each ● represents the results for each attribute which collectively show the overall picture of the existing culture of an organisation.

Applying the Organisational Culture Self-Assessment measurement helps the leadership team to keep track of the way in which the culture of innovation is diffusing throughout the

organisation. It involves employees in assessment and it encourages them to participate actively in the development of the organisational culture. Determining the starting point for the intended innovation journey can be carried out by applying innovation maturity method. Beswick, *et al.*, (2016) describe innovation maturity method where *"an organization starts its journey as well as on the optimum pathway which an organization will need to follow"* (p. 42). It requires applying some techniques to be put in place to set up the required foundations. These techniques are required for identification of innovation strategy and its direction and approach. These are also useful for identifying the required leadership, culture/behaviours, processes and tools. Figure 2.8 shows the 4X4 innovation maturity model.

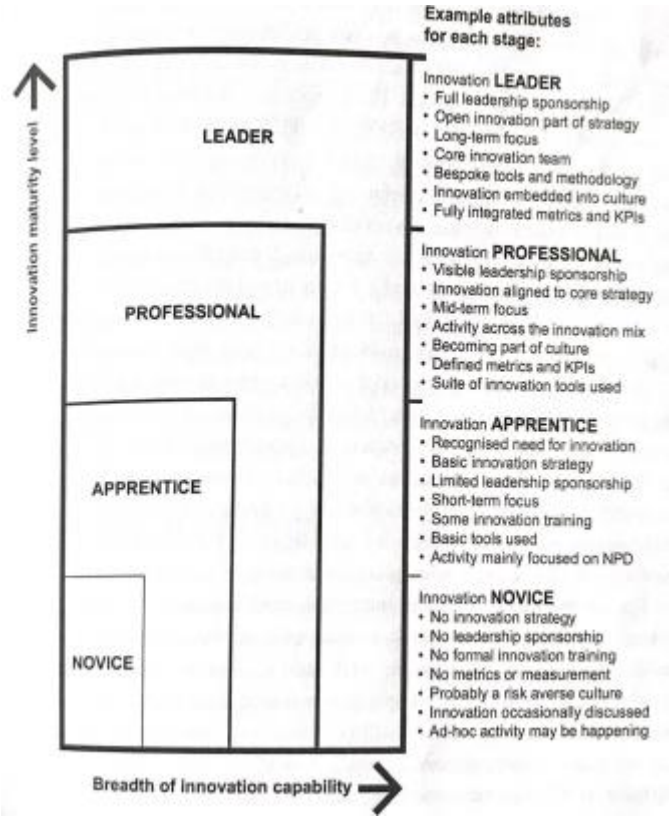

Figure 2.8 The 4X4 Innovation Maturity Model (Beswick, et al., 2016, p 43)

It is clear from figure 2.8 that the 4X4 innovation maturity model applies four stages of maturity including novice, apprentice, professional and leader. These four stages are assessed over four areas: strategy, leadership, culture and process to identify the present situation of innovation

maturity in any organisation. Therefore, it is important for leaders of innovation team to be honest about present level of innovation maturity, and the required change according to the innovation gap. After assessing the current organisational culture and after identifying the level of innovation maturity, the next step is developing the innovation strategy. Beswick, *et al.*, (2016) report that sustainable innovation requires a combination of three types of innovation: incremental, differentiated, and radical. The incremental focuses on improving existing products and internal business process, while the differentiated is concerned with adapting existing products and making additional short-term disruption according to customer feedback. However, radical innovation means developing breakthrough products, propositions and experiences for markets that don't exist yet in order to generate new revenue streams and long-term disruption for the organisation. Figure 2.9 explains the sustainable innovation mix, where organisations need to position some innovation from incremental, to a middle differentiated innovation area, or move to more radical breakthrough change.

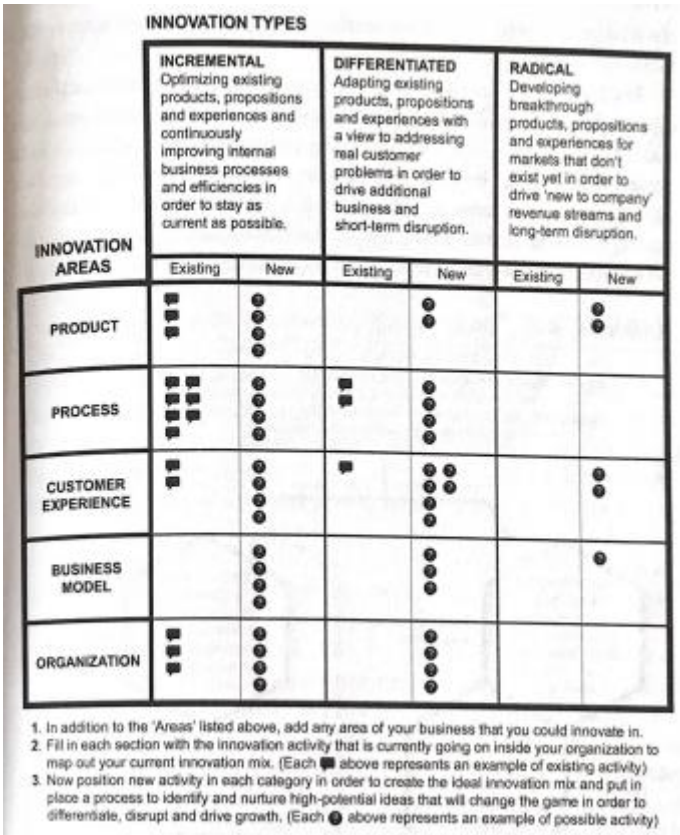

Figure 2.9 The Sustainable Innovation Mix (Beswick, et al., 2016, p 51)

Communication and translating strategy into behaviour is important for innovation agenda to be owned by the staff and to be aligned with the innovation strategy as will be shown in figure 2.10

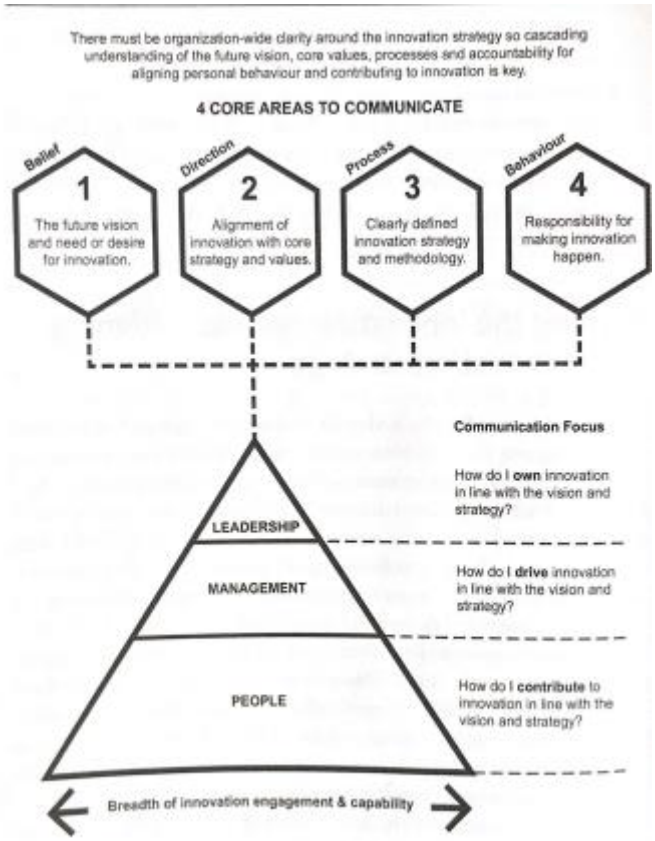

Figure 2.10 Translating Strategy into Behaviour (Beswick, et al., 2016, p 64)

It is clear from figure 2.10 that the four core areas of innovation strategy should be communicated to employees clearly in order to translate strategy into behaviour. It is also obvious that the breadth of innovation engagement and capability and the communication focus on various areas between the leadership, management, and the people. Thus, communicating the change to employees is important for a broad understanding of the innovation agenda and level of innovation maturity.

2.13.2 Building an Innovation Leadership Team

Beswick, *et al.,* (2016) believe that the following three questions should be asked to any leader about building an innovation leadership team: 1) Are you prepared to embed innovation into the top team's agenda? Innovation will not succeed unless the leadership team is prepared to change their mind-set about the significance of innovation, and they should support innovation for every required decision. Top management support is important to ensure that every member of the leadership team has to embrace the innovation strategy if it is to succeed. 2) Are you prepared to create a strategy which is aligned with the organisation's appetite for innovation? Beswick, *et al.,* (2016) emphasize that a leadership team has to adopt a venture capital mind-set because some ideas won't come to fruition easily. Yet, they argue that by spreading the risk, the ideas that do succeed will far outweigh those that don't. In essence, the innovation strategy should be realistic, practical, pragmatic and doable. 3) Are you prepared to move from a hierarchical leadership style to one which leads rather than manages and which empowers rather controls? Building a leadership team agreement, collaboration and risk, personal acceptance and ownership may require leadership training for creating capability of exemplary leadership skills to lead and manage innovation. Based on thousands of case studies developed by the leadership challenge programme in 1983 on how leaders achieved extraordinary results, Kouzes and Posner (2007) identified five characteristics of extraordinary leaders, and they suggest ten commitments towards exemplary leadership to support the five practices. Table 2.4 presents the five practices and the ten commitments of leadership

Practice	Commitment
Model the Way 	1. Clarify values by finding your voice and affirming shared ideals. 2. Set the example by aligning actions with shared values.
Inspire a Shared Vision 	3. Envision the future by imagining exciting and ennobling possibilities. 4. Enlist others in a common vision by appealing to shared aspirations.
Challenge the Process 	5. Search for opportunities by seizing the initiative and by looking outward for innovative ways to improve. 6. Experiment and take risks by constantly generating small wins and learning from experience.
Enable Others to Act 	7. Foster collaboration by building trust and facilitating relationships. 8. Strengthen others by increasing self-determination and developing competence.
Encourage the Heart 	9. Recognize contributions by showing appreciation for individual excellence. 10. Celebrate the values and victories by creating a spirit of community.

Table 2.4 The Five Practices and the Ten Commitments of Leadership (Kouzes & Posner, 2007, p 26)

Beswick, *et al.*, (2016) suggest that to help leaders develop their expertise in order to lead innovation change, it might be essential for leaders and their observers to witness these five practices in action using a 360-degree measurement tool and Leadership Practices Inventory (LPI).

2.13.3 Designing the Future

This stage focuses on shaping organisational visions and values and translating values into competencies. It looks at different approaches of shaping the innovation strategy and aligning the leadership team towards the future. Beswick, *et al.*, (2016) identify four common themes to define a good organisational vision, these are:

a) Brevity – to inspire the heart and minds of staff, it is better to write short paragraph to articulate a coherent vision.

b) Individuality- it should reflect the organisation business sphere and should create a long term, agile and legacy to control innovation culture.

c) Clarity- vision has to be clear, tangible and measurable that can be used a basis for defining norms, processes and behaviours to inspire trust and loyalty.

d) Engaging- vision has to be filled deep with the team. Hearts and minds of employees should be aligned with it.

Underpinning the vision requires defining good personal and collective values. Personal values may include responsibility, agility, trust and initiative while collective values may cover communication, collaboration, insight and inclusiveness. Kotter (1996) proposed dual operating system as a model of leading change. Kotter (2014) developed the same model for organisations adopting innovation models. Kotter suggests that organisations can maintain their normal business and try some innovation activity at the same time.

Creating the vision and shaping the values for the future journey of the organisation requires full involvement of employees to create alignment towards embedding innovation capability.

2.13.4 Communication and People Engagement

This stage focuses on communicating change with everyone connected with the organisation. It is about how to translate the vision and values into actions and behaviours. Beswick, *et al.*, (2016) recommends 4Es methodology to communicate change. It includes the need to : 1) educate people about change; 2) engage people in the change; 3) empower people to act by delegating accountability; and 4) enable people to act. Employee-led engagement programmes are used to enhance a self-managed motivational journey. They are conducted by individual people and foster empowerment; they stimulate employees to anticipate problems and find solutions for unexpected change. Innovation can be communicated by appointing i-agents who are not team leaders but they are a self-selecting group who interact with customers and other individuals to ensure that desired behaviour and employee engagement is strengthen and embedded within the organisation.

2.13.5 Building Innovation Aptitude

At this stage, leaders need to select the right behaviours, and they need to support that with the required training and skills through systems and metrics to enable people to live the transformation. Beswick, *et al.,* (2016) propose four pathways to move from the current behaviour to the desired culture of innovation. These are: 1) innovation mix- designing the optimum mix of incremental, differentiated and radical innovation that is suitable for the organisation; 2) operational model- adopting change in one division only or going for dual operating model; 3) current behaviours- leaders need to measure what is the current start behaviour of collaboration, empowerment, and ownership, and what the desired end points of behaviour are to integrate innovation; 4) manage attitudes- leaders need to consider how to shift the organisational mind-set and to manage people in alignment with the new culture.

There are many systems, policies, and processes that should form the basis of the roadmap to support the structure of the culture of innovation. Some of these include performance management, pay and reward, internal communications, systems development, processes, policies, recruitment, risk and governance, training and development, and external relationship Beswick, *et al.,* (2016) argue that organisations don't need to change all the systems, policies and processes but they need to select what needs to be changed and prioritize to develop a change structure. They also suggest that metrics and measurement should focus on two main areas: 1) Return on Innovation Investment (ROII) - which means: *"measuring the actual cost of resources required to drive innovation along with the cost of investment into specific potential innovations in the form of prototypes, trails etc. and the financial returns gained"* (p. 171); 2) Input metrics- measuring the innovation process from start stage of gathering ideas to the insight stage or "intelligence" to discover solutions for some problems related to how and where purpose and direction of innovation process can be aligned.

Beswick, *et al.* (2016) suggest 3Is innovation stages that help organisations to move from inventing to innovating. These stages are: 1) identify- it focuses on discovering problems, needs and opportunities to frame questions to be solved; 2) ideate- analyse and breakdown problems and challenges into key components to develop a solution; and 3) implement- viability evaluation (do-ability), final testing and reinforcement of chosen solution before lunching.

2.13.6 Embedding a Culture of Innovation

Beswick, *et al.,* (2016) warns that three common failure points should be avoided when embedding a culture of innovation; they describe them as too short, too sharp and too shallow. The first one means that leaders should not lose focus of the required change of behaviour at one stage and ignore it because of the short time to move to other initiatives. Leaders throughout the organisation need to reinforce the message of the I-agents to support change and act as a role model; 2) too sharp- people feel threaten by change and they resist it. Leadership team and I-agents should be ready to diffuse and clarify any kinds of arguments and change resistance; and 3) too shallow- if organisations do not give attention to employee engagement, then there will be little alignment with organisational ideals. Thus, a culture of innovation requires initiative, collaboration, creativity, understanding and empowerment. Leaders should be prepared for early stage challenges related to balancing and monitoring risk, replacing legacy system, providing streamlined and rapid open communication, leaders who lose enthusiasm and fear losing power and lack of funding and cost challenges. Leaders have to encourage people to adopt innovation, and they should be ready to substitute those who resist change with entrepreneurs for the future. Organisations need to gradually develop a culture of innovation by moving from small success to further success through evolved people and systems.

In conclusion, building a culture of innovation requires the integration of three important factors: 1) good strategy; 2) leadership support; and 3) committed people. Sanjay Radon, Managing Director New Technologies at Qineti company which shifted the organisational culture from a civil service toward more commercialized private sector states "*The key to successful innovation is to have a clear understanding of what your start and end point is; what's enabling and what's inhibiting innovation; what are your people's strengths and what's your company's current level of innovation maturity? When you know what your innovation strategy requires, you can work on filling the gaps. As a leader of innovation, I would say that you need to continuously create possibilities that will inspire, touch and move people around you. Understand the real challenges that exist, be bold and create the environment, inspiration and direction for your people to solve tomorrow's problems today*" (in Beswick, Bishop and Geraghty, 2016, p. 204). Content, reflections, and discussions of leadership development programme at PDO should include topics related to the gaps of the current strategy of innovation at PDO and how leaders should create possibilities and inspire their staff to understand the challenges and to create a supportive environment of building a culture of innovation that will make the staff more committed to deal with challenges of innovation.

2.14 Innovation Culture in Oil and Gas Industry

The study of Jai Persaud (2007) examines the factors that drive companies involved in exploration, development, and production in the upstream petroleum sector in Canada to innovate, and the impact of their innovation activity through major technologies on their performance. About 68 industry participants who work in exploration, development, and production were surveyed. The study found three main drivers of innovation, increasing petroleum capacity, reducing cost, and reducing environmental impact. Collaboration was ranked as important with competitors and suppliers. The study argues that increasing R&D tax incentives may not necessarily have an increased direct impact on innovation in exploration,

development, and production. The study suggests that collaboration among firms with government can be useful to address specific industry problems.

Perrons's (2014) global survey was carried out on 469 executives and senior managers who were responsible for R&D or technology deployment in their business units at oil and gas companies, and only 199 responded to the survey from different countries. The study found the following results 1) more patents per innovation were filed in service companies; 2) over 63% of the deployed innovation originated in service companies; 3) non-government led organisations and universities were not perceived as valuable source of innovation and R&D initiatives; 4) the USA has a dominant role in this industry globally especially in overall technology deployment and R&D activities. The study suggests that more innovation and research of technical improvement particularly in Carbon capture sequestration should be explored by technical disciplines to reduce environmental pollution, and to improve reservoir engineering and modelling, downhole measurement, and well engineering.

PWC's report (2013) "Gateway to growth: innovation in the oil and gas industry" attempted to find out: 1) the impact of innovation on growth and performance; 2) impact of innovation approaches towards more disciplined innovation; and 3) the best practices and factors that deliver tangible business results. Interviews were carried out on 1,757 C-suite and executive level participants across 25 countries and 30 sectors responsible for innovation, while 66% of the sample were from the oil and gas sector in 18 countries.

The survey found a clear correlation between innovation and success in growing revenues across industries. The most innovative 20% in the study grew at a rate 16% higher than the least innovative over the past three years. Also, less than half of oil and gas executives indicated that they have a well-defined strategy in comparison with 79% of the top innovators across industries. According to the report, oil and gas executives need to ask themselves the following

questions about their company's innovation vision: 1) what balance of innovation de we need? (Incremental, breakthrough and radical); 2) will our talent pipeline support future innovation? (Creative thinkers from other industries); 3) are we collaborating enough and with the right partners? (How strong are our strategic partnerships and is there a system to evaluate relevance of good ideas from other industries); 4) do we have strong enough innovation processes? Are we making use of open or corporate venture to develop new ideas? And 5) how will we know success when we see it? What measurement systems for innovation are in place? How well are they working? Do they support innovation efforts or stifle them?

Results also found that there was a shift to higher levels of 10%-20% breakthrough and radical innovation and oil and gas executives expected between 23% and 47% of their innovation to be major in every area except products. Measurement, talent, and finding the right people were the three top challenges in oil and gas firms noted by the respondents. Results showed that only 36% of respondents saw innovation culture as a challenges, 74% pointed out that senior executive participation in innovation project is important, while 50% of respondents said that talents poses a challenge to their innovation efforts. Executives indicated that they were willing to collaborate with the following stakeholders to deliver products and services over the next three years: 94% strategic partners; 85% customers; 70% suppliers; 44% academics; and 26% competitors. Results also showed that 69% of respondents believed that building a culture of innovation requires a well-defined innovation process. About a third of the oil and gas executives said that the most potential approach to drive revenues is open innovation. Although the energy sector spend nearly $16 billion of their revenues on R&D in 2013 according to R&D magazine, the results of this study showed that on average oil and gas companies spend less percentage of their revenues on innovation than other companies across the sample as a whole.

The report recommended the following advice for executives to build up a culture of innovation in the oil and gas industry: 1) know where you want to go and how you'll get there (careful

planning and a clearly-defined strategy); 2) look beyond R&D (fostering innovation in business models, products, customer experience and supply chain); 3) focus on people (attract new recruits and provide strong innovation culture that supports top talents; 4) work together with the right partners across industries. As the report puts it *"Drilling two miles down under the ocean requires as much technical sophistication as sending a man into space. Joint projects between oil majors/super majors, oil field service operators and strategic partners, suppliers or universities are becoming the norm rather than the exception"* (p. 13); and 5) carefully measure success (developing the right KPIs for different types of innovation and business units).

It can be concluded from this survey that to build a culture of innovation, oil and gas companies should focus on dealing with three important challenges, measurement, talent, and finding the right people. If companies are able to measure success, attract the best talents and collaborate with the best partners, it most likely that innovation and performance will be enhanced and developed.

In conclusion, the literature shows that there is a positive impact of innovation on organisational performance. Various definitions of innovation were compared, which ranged from a minor to radical new change. However, this study adopted the views of Beswick, *et al.*, (2016) who looked at innovation as something new or different that is "*affordable, accessible, and add value to the customer*" (p. 13). Oil and gas leaders may use a combination of different tools and frameworks and models of innovations presented in this section such as the Pentathlon and cultural web of Goffin and Mitchell (2010), Genome by DeGraff and Quinn (2007), and the six-stage framework proposed by Beswick, *et al.*, (2016) for building a culture of innovation. In addition, PWC's report (2013) provides practical guidance for leaders in the oil and gas industry about clarifying their vision and how to deal with challenges of innovation related to measurements, talents, and partners.

2.15 Organisational Performance

This part of the literature review explains some concepts of performance. These concepts include performance in general, organisational performance, resources and measurements of organisational performance, indicators and measurement of organisational performance, organisational performance and organisational effectiveness, and return on investment in training. Subsequently, it discusses research related to organisational performance in the oil and gas industry.

2.15.1 What is Performance?

Elena-Iuliana and Maria (2016) compare the definitions of (Whooley, 1996; Didier, 2002; and Bourguignon, 1997) that link performance to organisational objectives, outcomes, and social organisational process and its impact on economy. Didier (2002) argues that performance is mainly about finding an outcome, but it is the result of a comparison between the organisational outcome and objectives, whereas, Bourguignon (1997) believes that performance can be achieved when targeted objectives are reached. However, Whooley (1996) argue that performance is a socially constructed reality that include many factors: components, products, consequences, and impact. Performance also can be linked to economy, effectiveness, efficiency, and equity. Furthermore, Elena-Iuliana and Maria (2016) indicate that Profiroiu (2001) defines performance as: *"the existence of a relationship between objectives, means and results so that performance is the result of simultaneous exercise of efficiency, effectiveness and adequate budgetary process"* (p. 181).This definition is also presented by Matei (2006) in Figure 2.11

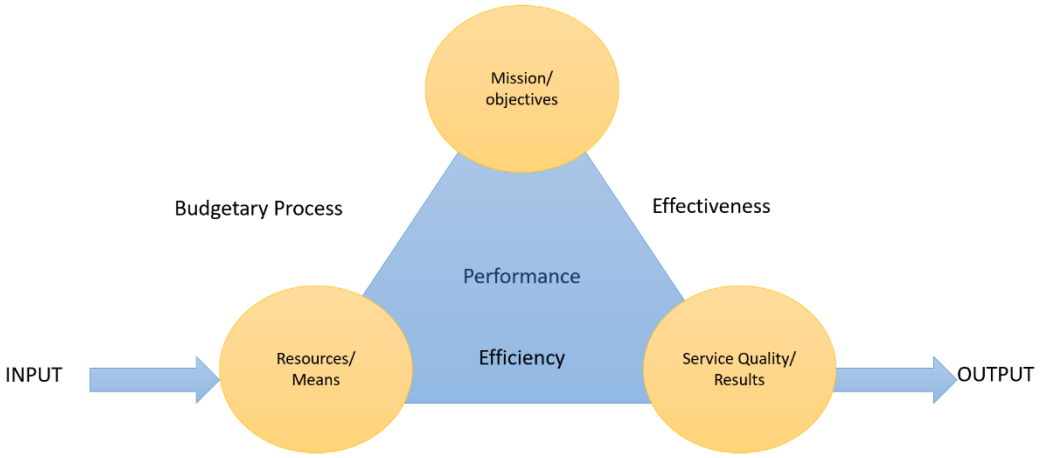

Figure 2.11 Components of Performance (Matei, 2006, p192)

Aguinis (2013) distinguishes between performance and performance management system. Performance is about behaviour and about what employees do, not about what they produce, while performance management system includes measurement of both behaviour (how the work is done) and the results (the outcomes of employee's work). Furthermore, Aguinis (2013) identifies the combination of three determinants of performance to reach satisfactory (and better) levels of work. These are: 1) Declarative knowledge (information); 2) Procedural knowledge (know-how); and 3) Motivation (willingness to perform).Thus, *Performance = Declarative Knowledge X Procedural Knowledge X Motivation*, and if one of the three determinants of performance is low, then performance will not reach high level.

In addition, Aguinis (2013) compares between two facets of performance: task and contextual. Task performance is related to the specific activities required by an employee's job, whereas contextual performance refers to the activities required to be a good "organisational citizen" i.e. helping colleagues, and supporting organisation's project. Other examples of contextual performance as Aguinis (2013) puts it includes: *"raising constructive challenges with the goal*

to improve rather than merely criticize, challenge the status quo in a positive way, and make innovative suggestions for change when others, including an employee's supervisor, disagree" (p. 100).

2.15.2 What is Organisational Performance?

Although organisational performance has been viewed widely by organisational research as dependent variable, it has also remained vague with loosely defined constructs (Jahanshahi *et al.*, 2012; Rogers & Wright., 1998). Many studies link organisational performance to indicators of performance measurement and organisation capacity development. Horton *et al.* (2003) associate organisational performance with capacity development. They define an organisation's capacity and its potential to perform in its "*Ability to successfully apply its skills and resources to accomplish its goals and satisfy its stakeholders' expectations. The aim of capacity development is to improve the potential performance of the organization"* (p. 19).

DuBois *et al.* (2019) assert that Pact (2015) created the Organisational Performance Index, a tool that measures change over time at the outcome level, focusing on external expressions of performance. Pact identified four organisational performance domains that created the core of Organisational Performance Index (OPI), these are: 1) effectiveness, 2) efficiency, 3) relevance, and 4) sustainability. Pact (2015) explains these four domains as follow:

1. Effectiveness is an organisation's ability to perform and constantly improve high-quality program operations to accomplish its mission and goals. Effective organisations should be capable of measuring and analysing outcome-level results to meet stakeholders' expectations, and by adopting and implementing updated industry standards.
2. Efficiency is an organisation's ability to plan and use its resources to provide products and services in a consistently successful and cost-efficient manner.
3. Relevance is an organisation's ability to change and to respond to the actual needs of its beneficiaries and customers.

4. Sustainability is an organisation's ability to ensure that its services are supported by multiple resources of funding, and community trust.

12.15.3 Resources of Organisational Performance

Transformational leadership and innovation culture that could lead to organisational performance can be found in the organisational tangible and intangible resources (Samad, 2012). Barney (1991) reports that the application of Resource Based View (RBV) theory assumes that organisations are fundamentally idiosyncratic, and over time accumulate unique combinations of resources and skills which allow them to garner rents on the basis of "distinctive competence". Barney (1986) believes that competitive advantages of resources in organisations may include characteristics such as valuable, rare, difficult to imitate, non-substitutable and imperfectly mobile. Resources can be related to assets, organisation attributes, capabilities, information and knowledge and organisational processes. According to Hooley (1998) *et al.,* that classified resources can be classified as 1)tangible assets such as land, plants, machines and people; 2) intangible assets like procedures and systems, knowledge, brands and reputations; 3)capabilities of individual or human capital like customer care, individual or group learning organisation and leadership skills; 4)group capabilities, for instance, (customer orientation, group learning and interpersonal skills); and 5) corporate capabilities, for examples, market orientation, organisation learning, portfolio management, innovation and planning processes.

2.15.4 Indicators and Measurement of Organisational Performance

Assessing organisational performance is more complex, especially when the organisation is transforming towards a radical change because what is to be measured is changing (Hubbard, 2006). Organisational performance is measured by input/output relationship, and effectiveness measures, concentrating on business growth and job satisfaction and staff retention (Kotter & Heskett, 1992). There are many measurements of identifying organisational performance

(Katsikeas *et al.*, 2000; Morgan *et al.*, 2004). Yet, research points out that there are three measurements of performance, these are: operational performance, financial performance, and organisational effectiveness (Hart and Bandury, 1994; Venkatraman and Ramanujan, 1986). Financial performance can be measured by sales growth and earnings per share, and indicators of operational performance can be found in market share and product quality, whereas job satisfaction is considered as sign of organisational effectiveness.

However, some research emphasize that organisational performance should be measured by a combination of human, operational, financial, and market based performance, whereas others argue that measurement should focus on financial, accounting and market-based performance. Some studies found that measures of organisational performance include indicators of lower turnover and absenteeism, profitability, customer satisfaction, market growth, productivity, effectiveness, efficiency and gaining a competitive advantage (Adeyi *et al.*, 2018; Michael & Chipunza, 2009). Similarly, Dyer and Reeves (1995) advocate the first view and they propose four measures of organisational performance in small and medium-sized firms: 1) Human resources outcomes (absenteeism, turnover, and job satisfaction), 2) Organisational outcomes (productivity, service, and quality), 3) Financial accounting outcomes (profitability and return on assets) and 4) Capital market outcomes (growth, stock price, and returns).

However, Richard *et al.* (2009) identify three measures of organisational performance: 1) Financial performance (profits, return on investment, return on assets); 2) Product market performance (sales and market share); and 3) Shareholder return (total shareholder return and economic value added). Shaker and Basem (2010) argue that indicators of organisational performance should consider relationship marketing perspective that aims to increase (market share, the retaining of current customers and attracting new customers, profit, return on investment and positive image).

Venkatrman and Ramanujam (1986) classify measurements of organisational performance into three areas: Operational performance, financial performance, and stakeholder performance. Garcia-Morales *et al.* (2008) state that company's performance can be measured by: 1) Return on equity; 2) Return on assets; 3) Return on Sales; and 4) the company's market share in its main products and markets. In general, many studies of empirical research reveal that the most common types of organisational performance measures are: Financial or accounting performance, operational performance and market-based performance (Combs *et al.*, 2005; Brealey *et al.*, 2001; Helfert, 1994; Higgins, 1995; Penman, 2001; Carton and Hofer, 2006). Figure 2.12 summarizes common measures of organisational performance.

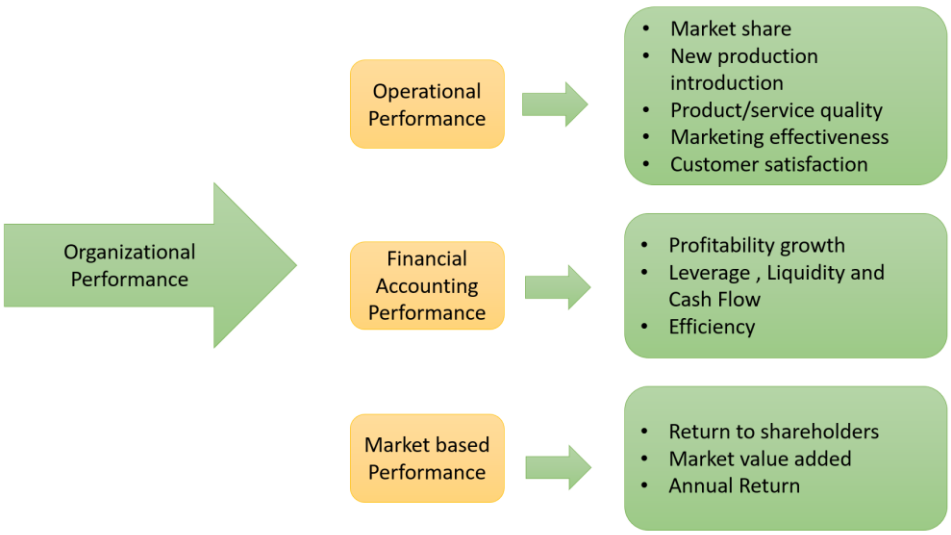

Figure 2.12 Common Measures of Organisational Performance (Jahanshai et al., 2012, p 6488)

2.15.5 Organisational Performance and Organisational Effectiveness

The scope of organisational performance should not be limited to the search of financial profitability which makes pressure on staff to meet the required growth of organisation and legitimizes global competition. Thus, the concept of organisational performance should be

widened to include more complex factors that contribute to a broad notion of organisational effectiveness that enables managers to provide the best work environment (Cameron & Whetten, 1983; Morin & Audebrand, 2014; and Savoie &Morin, 2002).

Organisational effectiveness composes of four main components as defined by Morin and Audebrand (2014), these are: systemic, social, technical, and ecological as presented in Figure 2.13. The systemic component is described as sustainability of the organisation which means secured financial stability and growth of the organisation. This can be measured by the good quality of products and service, and the satisfaction of business partners where added value is created and secured. The social component is related to the worth of personnel health and safety, employee commitment, competencies and employee performance. The third component is technical that refers to processes efficiency that deals with application of technology and operation systems. It is measured by resources economy, productivity, and profitability. The last component is ecological that focuses on the legitimacy of the organisation, and its position in the community, government, and external interest groups. It is measured by compliance to the regulations and policies, environmental and social responsibility.

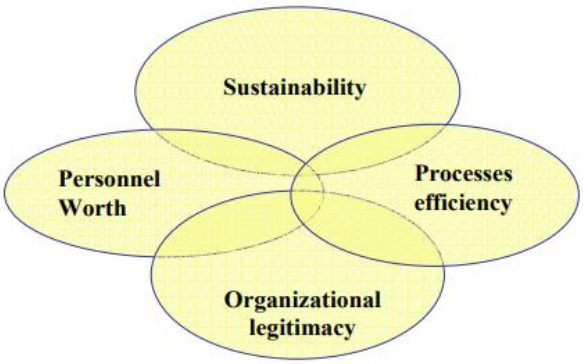

Figure 2.13 Model of Organisational Effectiveness (Morin and Audebrand, 2014, p 11)

2.15.6 Return on Investment in Training

Linking the effect of leadership development programmes on performance improvement is not an easy task. Enormous amount of budget is spent on training programmes. For example, about US$57 billion was spent on training in the US in 2001, with an increase of 5 per cent compared to the previous year (Training, 2001). Yet, despite the large expenditure on training some organisations are reducing training budgets because they cannot measure the value of training on organisational performance (Phillips, 2002; Van Buren, 2001).

The return on investment in training can be measured by the following benefit-cost ratio (BSR) (Kearsley, 1982; Nas, 1996; Phillips, 1997; Phillips 2002):

$$\text{BSR} = \frac{\text{Programme Benefits}}{\text{Prorgamme Costs}}$$

And the Return on Investment (ROI) formula is

$$\text{ROI (\%)} = \frac{\text{Net Programme Benefits}}{\text{Prorgamme Costs}} \text{ X } 100$$

Phillips (2002) notes that ROI formula alone is not sufficient to measure the benefits of training programmes, and other variables contribute to the ROI. These variables include participant reaction and satisfaction with the programme, the application of new skills/knowledge after the programme, and the change in business measures due to the application of new knowledge and skills developed after the training programme. The impact of training and performance improvement program should not focus only on ROI (cost-benefit comparison), but it should also include trainees' feedback, learning (new knowledge, skills, and attitudes); application and implementation and change of behaviour; and business impact achieved through the programmes. Kirkpatrick (1994) identified four levels for evaluating training programmes that include: reaction, learning, behaviour, and results. Table 2.5 explains each level

#	Level	Focus of Measurement
1	Reaction	Participants' reaction to the programme
2	Learning	Participants' change of attitudes, improve knowledge and skills
3	Behaviour	Participants' change in behaviour
4	Results	Change in business results i.e. productivity, quality, costs, sales, turnover, and profits

Table 2.5 Kirkpatrick's four levels of evaluation (Kirkpatrick, 1994, in Phillips, 2002, p 27)

However, Phillips (2002) added ROI as a fifth important level to Kirkpatrick's four levels that compares the monetary value of the business impact with the costs for the programme. Table 2.6 describes Phillips' five levels of evaluation

#	Level	Focus of Measurement
1	Reaction, Satisfaction and Planned Action	Participants'' reaction to the programme and stakeholder satisfaction with the programme and the planned implementation
2	Learning	Participants' change of attitudes, knowledge and skills related to the programme and implementation
3	Application and Implementation	Participants' change in behaviour on the job and specific application and implementation of the programme
4	Business Impact	Measures business impact changes related to the programme
5	Return on Investment	Compares the monetary value of the business impact with the costs for the programme

Table 2.6 Phillips' five levels of evaluation (Phillips, 2002, p 28)

It can be concluded from both frameworks that the impact of training and performance improvement program should not focus only on ROI (cost-benefit comparison), but it should also include trainees' feedback, learning (new skills, knowledge and attitudes); application and

implementation and change of behaviour; and business impact achieved through the programmes.

2.16 Organisational Performance in Oil and Gas

The EY Report (2015) about driving operational performance in oil and gas industry defines operational excellence as "*an element of organisational leadership that stresses how a variety of principles, systems and tools can be applied toward the sustainable improvement of key performance metrics*" (p.1). The report emphasizes that measurement of organisational performance in oil and gas companies should be linked to the achievement of three important objectives: 1) grow and meet economic expectations; 2) deliver continuous improvement in health, safety, environment and quality (HESQ) performance; and 3) drive growth in daily production and proven reserves. The EY report (2015) proposes six important components of operational excellence that should be taken into account to measure organisational performance as shown in Figure 2.14

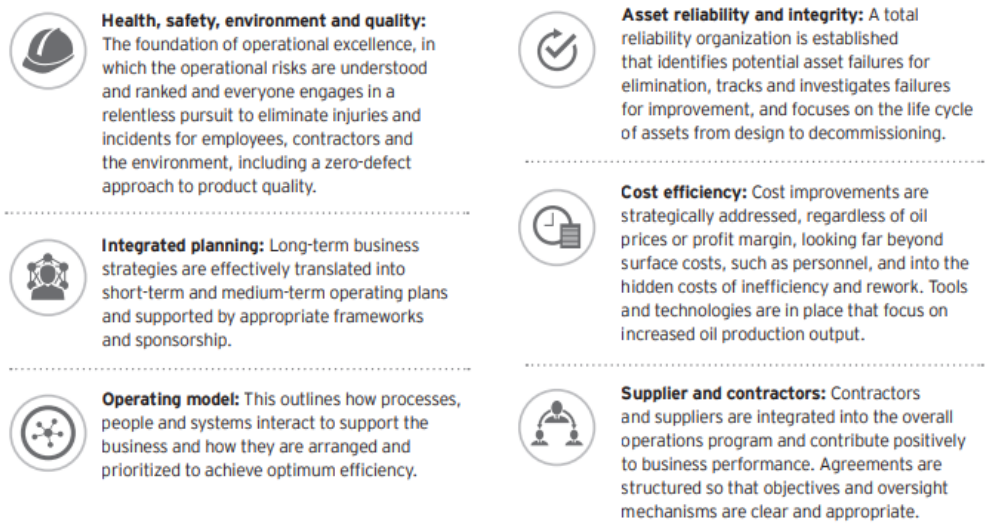

Figure 2.14 Key Operational Excellence Components (EY, 2015, p 9)

Stevens's (2008) study on assessing the performance of National Oil Companies (NOC) identified two main measures of performance: 1) specific measures: efficiency, operational,

and financial; and 2) measures of social value creation (fiscal linkages, forward linkages, and backward linkages). Fiscal linkages mean level of productivity, the price of the output, and the cost of production. Backward linkages are related to the percentage of national staff in the National Oil Company (NOC) labour force. Forward linkages are assessed according to the available energy to the rest of national economy. It can also be measured by how far domestic consumption can be met by national production of oil and gas compared to input. Table 2.7 presents examples of specific measures and measures of social values creation.

Measure	Meaning
Commercial performance	Profitability, return on investments, and commercial prospects
Production	How effectively and consistently is production being maintained given the constraints within which the NOC operates?
Reserves replacement	How effectively is the NOC replacing reserves?
Downstream investment	How effectively is the NOC addressing refineries' challenges and diversifying its means of monetizing resources?
Partnership	How successful are contract terms in attracting partners and how innovative is the NOC's approach to partnering?
Technology	How developed is in-house technology, R&D, and expertise in unconventional resources?
Overseas investment	How competitive is the NOC as a commercial company operating abroad?
Independence	What degree of commercial independence does the NOC have?
Environment	How well has the NOC developed strategies for clean hydrocarbon and emissions reduction?
Human resources	How strong are the NOC's policies on staff training, recruitment, and quality of staff?

Table 2.7 Performance measures for National Oil Companies (Stevens, 2008, p 17)

George *et al.* (2016) conducted a qualitative case study to identify the barriers to, and enablers of, sustainability integration in the performance management systems of OilCom's company. Data was collected through semi-structured interviews with 20 senior managers involved in managing sustainability issues especially health, safety and environment (HSE) audits for OilCom's local and international divisions and joint ventures at OilCom's headquarters. The results showed that cognitive barriers considerably affect the achievement of full integration of sustainability in the company despite the contribution of cognitive, organisational and technical enablers. The study recommends that cognitive, organisational and technical factors such as vision and mission, organisation structure, strategies and plans, key performance measures,

target setting, performance evaluation and rewards systems, information flows, systems and networks in performance management system should be integrated with the sustainability strategy of the company.

Baldo and Baldarelli (2017) analysed the case study of an Italian medium-sized oil and gas company (SGR Group) which renewed its business model and sustainability strategy. The study found that the coherence among mission, governance and accountability is a key driver for effective business model. The study also found that sustainable business models and sustainable leadership models, which include transformational, ethical-based and values-virtues-driven leadership enhance organisational performance.

Zuofa and Ocheing(2017) surveyed the role of senior managers in safety leadership in Nigerian offshore oil and gas projects. Data was collected from semi-structured interviews with fifteen senior managers in Port Harcourt and Warri (south-south Nigeria). Findings indicated that leadership style is critical for the implementation of an effective safety management system applied during offshore construction projects. The study concludes that organisational safety standards can be enhanced and optimized by authentic leaders who inspire vision and motivate employees.

Mirimoghadam and Ghazinoory (2017) explored the elements that affect technological learning outcomes in oil and gas industry in Iran. Interviews were conducted with 48 various stakeholders that include top management staff from Ministry of Petroleum, contractors, and senior managers and technical staff in the South Pars Gas Field Development Project in the Persian Gulf. Findings showed that four elements jeopardize the technological learning outcomes in this sector, these are cost, time, and risk and management structure. The study recommends a restructure of institutional organisation of the sector from command and control

state to supportive state. It also recommends introducing incentive-based regulations to encourage effective technological learning and to enhance organisational performance.

Alshaidhani (2017) studied the capacity building through professional development and career ladders in the petroleum (oil and gas) upstream or Exploration and Production (EP) sector in Petroleum Development Oman (PDO). Data was gathered from four focus group discussions, twenty one-to-one semi structured interviews, and an online questionnaire survey - with 147 respondents, consisted of executives, team and discipline leaders, petroleum engineers and geoscientists at PDO. One of the challenges found in the study was the lack of developing competent technical and professional managers to deal with the increasing technical and commercial issues facing the oil and gas sector. Findings also revealed that professionals on specialist career paths are driven more by attitudes and motives, while those on the managerial paths are driven more by the organisational support. The research also found that career progression is measured by job titles and positions promotion, which is suitable for the managerial career path but less so for the specialist career paths. The study suggests that careers should be based on "roles" rather than "positions" as career units, which suit all career paths. The study recommends that PDO should endorse changes in leadership development programmes for senior leaders and should introduce alternative multiple career ladders model.

2.17 Key Aspects of Oman's Economy

Oman is located in the southeast of the Arabian Peninsula, with total area of309, 500 sq. km (119,499 sq. mi). As of July, 2020, the total population of Oman was 4,528,000, and the natural resources include petroleum, natural gas, copper, marble, limestone, and chromium. The average daily production of crude oil was 978000 barrels a day, and the average price of Omani oil in the international market was $33.7(www.ncsi.gov.om). China is the major buyer of Omani oil, and other countries also include Japan, the United States, South Korea, Taiwan, and Thailand. Measures were taken by the government to reduce public spending and to diversify

the economy (BMI, Oman Best's Country Risk Tiers, CRT-4, 2018). Oman is an absolute monarchy, and HM Sultan Haitham Al-Said succeed his cousin Sultan Qaboos bin Said, who died in January, 2020, and ruled Oman for 50 years. Oman has undergone a period of transformative economic development since 1970 (BMI, Oman Country Risk Report, Q4 2017). The oil and gas industry has been a key driver in this process, generating the wealth for growth, enhanced public services, established vital infrastructure and improved living standards. All of this has contributed to peace, prosperity and stability for Oman. However, oil production cuts and low oil prices have created a deficit in Oman's economy and weak GDP growth in 2017 which is expected to remain for years and it will force the government to rely on the debt and loan markets at present (BMI, Oman Country Risk Report, Q4 2017). Figure 2.15 explains 10 main indicators of Oman 2040 vision.

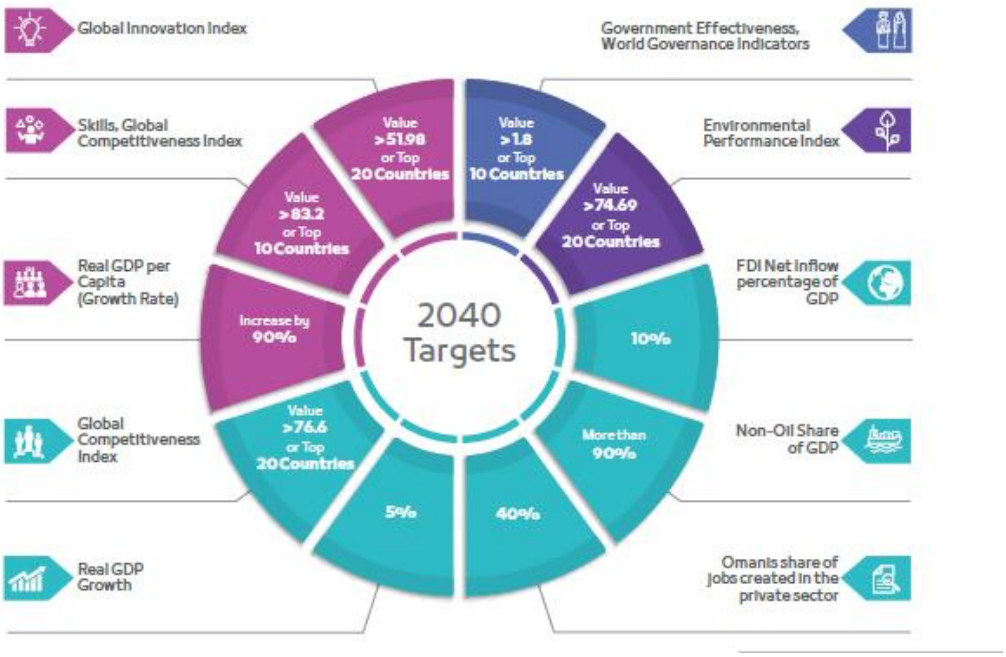

Figure 2.15 Main Indicators of Oman 2040 Vision (2019, https://www.2040.om/wp-content/uploads/2019/10/2040_En.pdf)

In addition, Oman 2040 vision identify seven factors of Oman's readiness to transition to knowledge innovation. Figure 2.16 explains these factors.

Figure 2.16 Oman's readiness to transition to knowledge and innovation, Oman 2040 vision, (2019, https://www.2040.om/wp-content/uploads/2019/10/2040_En.pdf)

PDO's business strategy and innovation strategy should be aligned with Oman 2040 vision. There are twelve strategic directions and objectives in Oman 2040 vision. These are:1) an inclusive education, lifelong learning, and scientific research that lead to a knowledge-based society and competitive national talents; 2) a leading healthcare system with international standards; 3) a society that is proud of its identity and culture, and committed to its citizenship; 4) a decent and sustainable life for all; 5) a dynamic economic leadership with renewed capabilities operating within an integrated institutional framework; 6) a diversified and sustainable economy that is based on technology, knowledge and innovation, operates within integrated frameworks, ensures competitiveness, embraces industrial revolutions and achieves

fiscal sustainability; 7) a dynamic labour market that attracts talents and keeps up with demographic, economic, knowledge and technological changes; 8) an empowered private sector driving a national economy that is competitive and aligned with the global economy; 9) comprehensive geographic development through decentralisation and the development of limited urban hubs; and the sustainable use of lands; 10) effective, balanced and resilient ecosystems to protect the environment and ensure sustainability of natural resources to support the national economy; 11) participatory legislative system; independent, competent and swift judicial system; and effective and transparent oversight; 12) flexible, innovative and future-shaping administrative bodies operating with good governance. It is clear that leadership capabilities, knowledge, technology and innovation are key words in some strategic directions and objectives in Oman 2040 vision.

Furthermore, sustainability issues in this industry indicate that oil is running out, oil price is going down, controlling pollution and compliance with (health, environment, and safety standards) is demanding, and increasing plant and projects complexity requires more creative and innovative staff. Oil and gas companies recognize the importance of training and leadership development to meet these challenges.

2.18 Oman Petroleum Development Oman (PDO) Context

The following part explains more details about the context of PDO. This includes facts and strategic priorities of the company, then code of practice and leadership framework and attributes, and current projects. The last section describes briefly training and staff development including leadership development programme.

2.18.1 Facts, Strategic Priorities, and Scope of Business

There are many oil and gas companies in Oman. Petroleum Development Oman (PDO) is the main company in charge of the production and exploration of petroleum in Oman. It was established in 1951, and it discovered oil in Oman in 1962. Oman owns 60% of PDO's

shareholdings, whereas the Dutch/British Shell International Group has 34%, French Total holds 4%, and Portuguese Partex holds the remaining 2%. At the end of 2018, PDO had 8,596 staff and over 70,000 contract representatives, a combined workforce made up of around 70 nationalities. In 2018, PDO's capital expenditure (Capex) was US$5.5 billion and operating expenditure (Opex) was US$1.9 billion. The total oil production achieved by PDO in 2018 was 610,170 barrels per day (bpd), and the average government gas supply during 2018 was 64.8 million m^3/d. PDO's stakeholders consist of local groups, authorities, shareholders, clients, suppliers, regulatory bodies, municipal government, academia, nongovernmental agencies, the media, and employees and contractors (PDO Report, 2018).

The strategy of the company aims to maximize production, minimize financial operational costs and comply with health, safety and environmental requirements by using efficient and responsible techniques of oilfield practices in the exploration, production, development, storage and transportation of hydrocarbons. Value creation, sustainable economy development, and stakeholders' interests, health, safety, and environment (HSE) are key words in PDO's vision, mission, and goals. PDO's vision focuses on being renowned and respected for the excellence of PDO's people and the value the company creates for Oman and all stakeholders. The main focus of the company is to deliver excellence, develop and sustain value creation in oil and gas industry. PDO's mission targets to *"Find, develop and produce oil and gas safely, responsibly and profitably, in order to contribute to the sustainable development of Oman, to the benefit of all our stakeholders" (*PDO Report, 2018, p.6). Health, safety, and environment (HSE) are priority in PDO's work, and the company targets to achieve Goal Zero, no harm to people, assets or environment. PDO also aims to improve the recovery of oil through the deployment of new technology. The (EOR) Enhanced oil recovery, where the change happens to the oil's physical chemical properties. The aim of PDO's strategy is to increase production

and decrease the costs and ecological and social impact of the actions by implementing the best oilfield practices.

The scope of PDO business from shareholder investment to delivery of oil and gas requires deployment of new technology and continuous innovative improvement of many operations. These operations include: 1) exploring oil and gas opportunities; 2) creating and evaluating oil and gas exploration; 3) developing abandoned wells and facilities; 4) operating wells and facilities; 5) maintaining wells and facilities; and 6) transporting, storing, and delivering products (PDO, Sustainability Report, 2018). Figure 2.17 explains scope of PDO business.

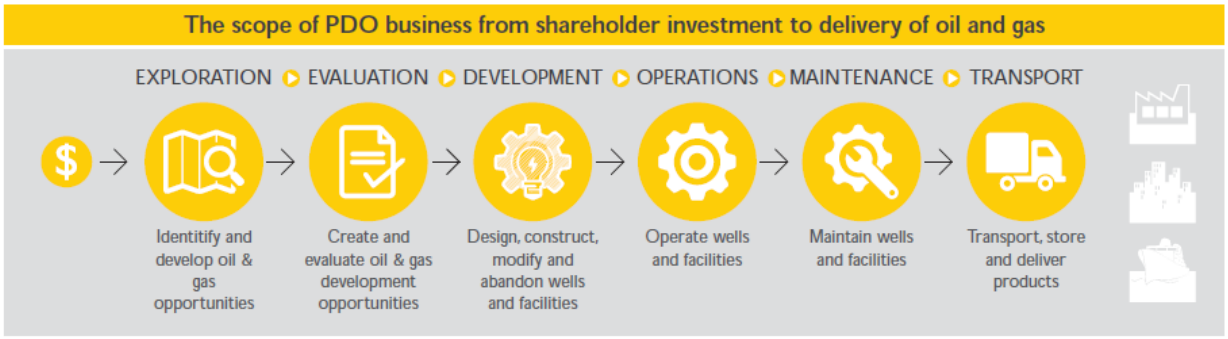

Figure 2.17 Scope of PDO business (PDO, Sustainability Report, 2018, p 8)

2.18.2 Code of Practice, Leadership Framework and Current Projects

Code of practice is set by the company to maintain a good reputation that relies on compliance not only with the country's law, but also with the best ethical standards. It crystallizes the essential rules, standards and behaviours necessary to attain the core values of PDO. It is divided into five sections addressing compliance: 1) people and safety; 2) fighting corrupt practices; 3) safeguarding information and assets; 4) communications management; and 5) national and international trade. To comply with the code of conduct, leaders at PDO need to apply four important components in the Leadership Framework and Attributes, that expect leaders to: 1) treat everyone fairly and respectfully (Respect); 2) continuously engage, listen, and coach others (Engagement); 3) work proactively across boundaries and build partnerships

(Collaboration); and 4) prioritise delivery and continuous improvement, and act as a lean role model (Performance). Figure 2.18 explains Leadership Framework and Attributes.

Figure 2.18 Leadership Framework and Attributes (PDO, Sustainability Report, 2018, p 7)

A Lean Management System (LMS) has been introduced by PDO and embedded in all departments and units of the company to make efficient use of business and resources, and to provide continuous quality improvement process. PDO has 485 "Lean" managers and 375 "Lean" practitioners who have conducted a Lean awareness training programme for 5,000 staff. More than 160 Lean efficiency improvement projects were implemented across PDO to remove waste and streamline work, and around 200 more projects were conducted. Applying Lean projects have resulted in generating more thanUS$400 million through extra revenue and cost saving. The Opex budget included a cumulative total of aroundUS$200 million savings, and the 2017 budget included a total of more than US$225 million savings (PDO Sustainability Report, 2016). By end of 2018, about 112 employees completed the extensive Lean Practitioner (LP) training program increasing the total of qualified LPs to 400. This supported the delivery of 142 efficiency improvement projects, securing extra US$152 million in cost savings. Also, more than 15,700 ideas have been generated from across PDO and more than 6,000 ideas have

been applied. To spread Lean awareness to other organisations in Oman, PDO hosted leaders from more than 50 public and private organisations to learn more about lean programme (PDO, Sustainability Report, 2018).

Knowledge management (KM) has developed effectively in PDO, and perceived as a key commerce enabler. The PDO Information Administration program started in 2014 to encourage the superior recognizable proof, capture, sharing and application of the company's collective information, learning, experiences and expertise to assist encourage ventures, operational execution, prepare and wellbeing and security, nearby continual change. Taking after partner support, PDO received a best practice approach to KM and three starting pilots (Lessons Learned, On-boarding and Communities) were propelled in Ventures Conveyance.

Due to the variety of culture, gender, and nationalities of staff at PDO who come from 70 countries, the company is committed to provide supportive working environment of Diversity and Inclusion (D&I) that provides fairness, gender, and prevents harassment and bullying. There are the three sub-committees of D&I related to fairness, gender, and bullying, and there are representatives from the Managing Director's Committee in each sub-committee. D&I training programmes are provided to enhance awareness of staff about the concepts of D&I and how to deal with its issues professionally. Also, D&I consultations are provided to staff on the department level. Mentoring and training facilities are provide for females to enable them to work in oil field areas in operational roles. Females currently represent only 12% of total staff in PDO, and there is a limited number of females working in Operations and Well engineering. PDO plans to create a gender balance of one in five individuals by 2022 (PDO, Sustainability Report, 2018).

2.18.3 Innovation and New Technology

PDO proceeds to improve and contribute in innovations to address the challenges from complex reservoirs, ageing facilities, the need to optimize production and minimize cost, and

the imperative of increasing personal and process and prepare security. In order to optimize production, reduce cost, and enhance individuals and process safety, PDO leverages deployment of new technology as automation, digital systems, data analytics and artificial intelligence. PDO appointed Chief Information and Digitalization Officer to deal with data strategy, and an analytics focal point was appointed in each directorate to track innovative ideas from data and articulate them at the corporate level.

Furthermore, the following are current successful products and projects based on the deployment of new technology at PDO:

a) BLADE: an automated technology that controls the variable speed drives on beam pump wells. It reduces breakdowns, eliminates HSE exposure, and lowers operational expenditure.
b) Nibras: a surveillance programme flags out-of-sync data variables from the millions of data values it collates every two minutes.
c) Al Fikr: a web-based system which significantly improves the management of projects, decreasing project duration time.
d) Drone smart mobility and video collaboration techniques: It increases staff performance at field, it saves time, and it enhances real-time monitoring, data quality, assurance compliance, and it reduces HSE exposure.
e) Ejad Platform: It fosters collaboration, transfers knowledge and builds a new R&D ecosystem in Oman.

2.18.4 Training and Staff Development

In 2013, PDO launched a Graduate Development Programme (GDP) that provides on-the-job training for Omani university graduates who joined PDO. GDP training covers many technical and non-technical disciplines such as mechanical engineering, production operations,

geosciences, real estate commercial services, and finance in business. More than 464 HSE, technical, non-technical training programmes were provided, and more than 150 learning events on process safety were delivered to PDO and local operators and contractors.

Leadership Development Programme called Leadership Essentials (LE) is an In-house leadership programme that is designed and owned by PDO. It focuses on providing staff with the fundamental knowledge and skills to become leaders. It consists of 4 modules that includes: LE1) introduction to leadership; LE2) achieving your objectives through yourself and through others; LE3) communication skills; and LE4) features and characteristics of high performing teams. Each module last three days, and candidates do it sequentially, there is usually about 6 months gap minimum to proceed to the next module. The leadership development programme includes online manuals, personal development action points and self-coaching questions. Each year, about 250 senior leaders participate in the Leadership Essentials (LE) programme.

2.19 Research Hypotheses and Conceptual Framework

Based on the literature review, three hypotheses were generated to answer the research question of this study and a conceptual framework was developed. Finn (2007) found that leadership development programmes improved factors of transformational leadership related to individualised consideration, inspirational motivation, and intellectual stimulation. Other research found transformational leadership can be improved through models of leadership development programmes such as 360 degree feedback and constructive and rational thinking of one to one coaching (Kirbridge, 2006; Kelloway & Barling, 2000; Cerni *et al.,* 2010; Kelloway *et al.,* 2000; and Al-Shamsi *et al.,* 2015). Therefore, research hypothesis 1 state:

H 1. There is a significant impact of the Leadership Development Programme (LDP) on the development of Transformational Leadership (TL) at PDO.

Akinwale *et al.*, (2018) found that training was significant in influencing technology and innovation capability in oil and gas industry. Also, Research of Cordon-Pozo *et al.,* (2017) revealed positive impact of innovation training on product innovation performance. In addition, Results of Dessie and Ademe (2017) showed training creative thinking and motivational attributes had significant impact on supporting innovation, and Fernando (2019) found that effective training and development positively boost innovation capability. Moreover, other research found positive impact of innovation capabilities and innovation culture on organisational performance (Mazur & Zaborek, 2016; Phadiha &Gomes, 2016; and Semuel, *et al.,* 2017). Thus, research hypothesis 2 state:

H 2. There is a significant impact of the Leadership Development Programme (LDP) on the building of Innovation Culture (IC) at PDO.

Raza (2014) found that training and development have a significant impact on organisational performance. The same results were also found by (Omar & Mahmood, 2020; Adeyi *et al.,* 2018; Amos & Natamba 2015; Naji *et al.,* 2020; and Tahir *et al.,* 2014). Therefore, research hypothesis 3 state:

H3. There is a significant impact of Leadership Development Programme (LDP) on the enhancement of Organisational Performance (OP) at PDO.

Figure 2.19 explains the conceptual framework of this research.

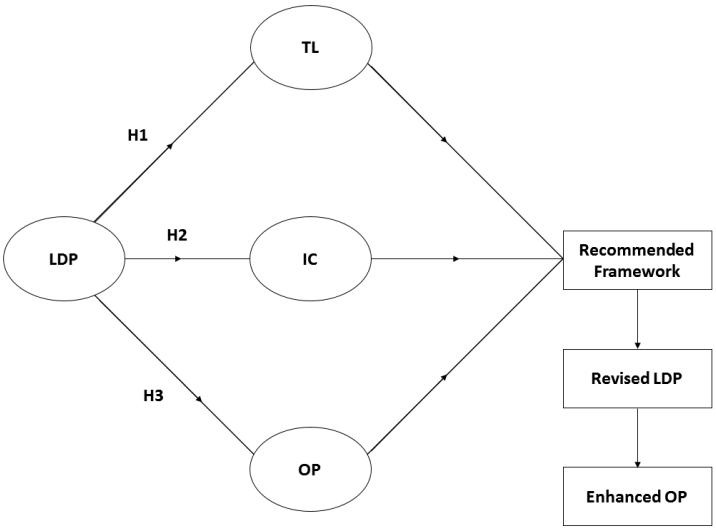

Figure 2.19 Conceptual Research Framework (The Author)

2.20 Chapter Summary

The literature review explored concepts and definitions related to the keywords of the study such as leadership, leadership development, transformational leadership, innovation culture, and organisational performance. The first part of the literature explored some approaches, practices, and models of leadership development programmes. It adopted the definition that viewed leadership development as holistic process of collective activities to enhance performance (Pain, 2017). Leadership development is not limited to programmes or activities, it is concerned with fostered attitudes and stimulated learning organisation. Five models and approaches of LDP were explored, and reasons for why LDP fail were identified (Gurdijan *et al*., 2014). The second part of literature explored concepts and factors of transformational leadership. Not many studies were found about the impact of leadership development programmes on transformational leadership. Yet, more research was found about impact of transformational leadership on innovation culture and organisational performance in all industries in general, and in oil and gas industry in particular. Next part explored concepts of innovation, culture, organisation culture, and innovation culture. Models of building innovation

culture, and cultural web were discussed. Six stages Framework suggested by (Beswick *et al.*, 2016) is a useful guide for any organisation to build culture of innovation. Little research was found about the impact of leadership development on innovation culture, but more studies were found about the impact of innovation culture on organisational performance. Then, concepts of performance and organisational performance were clarified. Examples of tangible and intangible resources, measurements, and indicators, and ROI in training were discussed. Also, research related to organisational performance in oil and gas was examined. Finally, an overview of Oman's economy was provided, and PDO context was described. This included PDO's mission, vision, goals, and current projects related to code of practice, leadership framework, diversity and inclusion, deployment of new technology, operations, and leadership development programme. Finally, based on the literature review, three hypotheses were generated to answer the research question of this study and a conceptual framework was developed. The next chapter discusses research methodology.

Chapter Three

Research Methodology

3.1 Introduction

This chapter presents the methodology applied for collecting and analysing data to achieve the aims and objectives of this study. It describes and discusses research philosophy, research design, and the research approach of this study. Definitions of those three concepts of research will be discussed. Subsequently, research methods of this chapter presents the design and development of quantitative survey and qualitative interview. This is followed by a discussion of sample size and access of participants for data collection, ethical issues and reliability and validity of instruments used in this study.

3.2 Research Philosophy

Research philosophy is also associated with a research paradigm which guides how to conduct research in reference with people's assumptions about awareness of facts and development of knowledge (Collis and Hussey, 2009). According to Saunders *et al.* (2019) researchers should develop the skill of reflexivity by critically applying and comparing the results of the same measurement of the researcher's beliefs and assumptions to the assumptions and beliefs of other research participants. Saunders *et al.* (2019) identify three types of assumptions: ontological, epistemological and axiological. Ontology concerning researchers' assumptions enable the researcher to focus on the research objects and its phenomena, whereas epistemology assumptions are concerned with legitimate, acceptable and valid knowledge and how it is communicated to human beings. In other words, it is related to how the results of research contribute to knowledge. Axiology refers to how values and ethics within the research

process incorporate questions of the researcher's values and its impact on values of the research participants.

Saunders *et al.*, (2019) identify five types of research philosophies: 1) positivism, 2) critical realism, 3) interpretivism, 4) postmodernism and 5) pragmatism. They describe positivism as it "relates to the philosophical stance of the natural scientist and entails working with an observable social reality to produce law-like generalisations" (p.144). It emphasises the scientific method to yield data and facts uninfluenced by bias human interpretation. The positivist position focuses on discovering observable and measurable facts and regularities, and observing and measuring phenomena that may produce valid and credible data (Crotty 1998; Sauder *et al.* 2019). A positivist researcher may use existing theory to develop hypotheses that can be confirmed, rejected or developed by further research. Positivism focuses on inductive research but it can be deductive as well. Positivist researchers remain neutral and detached from research data to avoid personal influence on research's participants and to avoid subjective interpretations of results. They use a highly structured methodology to measure frequent quantifiable observations and answers by statistical analysis (Saunders *et al.*, 2019).

Critical realism research philosophy attempts to explain what the researcher observe and experience in the underlying structures of reality that influence recognisable events. Critical realists believe that reality cannot be directly reached through research observation and knowledge because it is independent and external. They believe that what researchers experience are sensations and manifestations of the real life and doesn't represent the real world. Critical realism argues that reality can be explained by two steps, first the sensations and events we experience, and second, the 'reason backwards' or mental processing after experience to the underlying reality that might have cause them. Direct realism believe that sensations and events of the first step is enough. Figure 3.1 explains the stratified ontology of critical realist between the empirical, actual and real events.

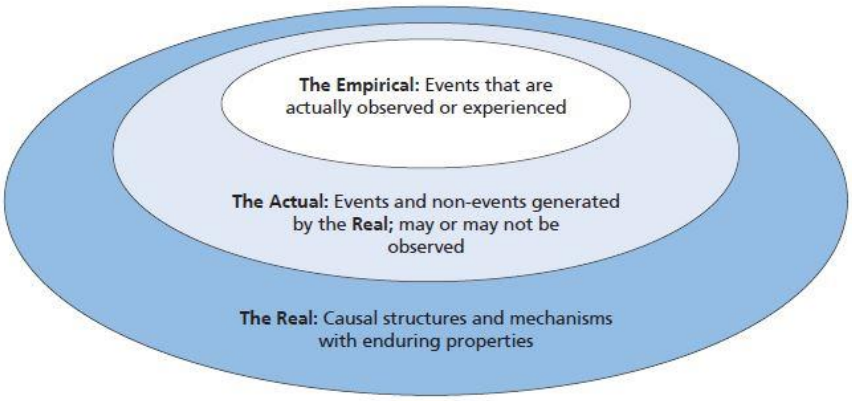

Figure 3.1 Critical Realist Stratified Ontology (Saunders et al., 2019, p148, developed from Bhaskar, 2008)

Bhaskar (2011) argues that researchers need to understand first the social structures in the social world where the phenomena have taken place, since researchers don't see through the practical and theoretical processes of social sciences. Critical realist research attempt to explain the observable organisational events by identifying the causes and mechanisms and its impact on social structure in daily life. Critical realist research take into account the historical analysis of social and organisational structure and their development and change over time (Bhaskar, 2011; Reed 2005; Saunders *et al.*, 2019). Therefore, critical realist researchers believe that statistical correlations and quantitative methods alone are not sufficient to explain notions of causality, and mixed research methods are more desirable (Reed, 2005; Saunders *et al.*, 2019).

Interpretivism research philosophy emphasises that since humans create meanings, they are different from physical phenomena. It is argued that social sciences research is different from natural sciences, and thus, studying human behaviour should be different than explaining physical phenomena. Researchers in business and leadership in large companies may study organisations from the perspectives of stakeholders including staff and leaders who may have different views as they experience different workplace relations.

Interpretivism focuses on the difference of individuals' experiences in complex organisations due to various perspectives such as gender, ethnic and cultural backgrounds, and employers or customers. Interpretivist researchers have different emphases on how phenomenologists, hermeneuticists and symbolic interactionists do this in real life. Phenomenologists focus on the participants' experiences and their recollections and interpretations of those experiences, and hermeneuticists focus on texts, symbols, stories, images and other cultural items, while symbolic interactionists focus on analysis of social interaction among people i.e. meetings, teamwork and conversations. Thus, interpretivists are concerned with the use of language, culture and history in forming interpretations of relations in work and the social world (Crotty, 1998; Saunders *et al.,* 2019). In general, Interpretivism is subjectivist due to the influence of researchers' values and beliefs in interpreting experiences of organisational and social world complexity.

Postmodernist researchers criticize positivism and objectivism. They emphasise dynamic change and the contribution of language's classifications in any sense of order. They also claim that language itself is not sufficient, and there is no abstract right way to describe the world, because a right or true way is decided by collective choices that form the power relations in specific contexts (Foucault 1991; Cala's and Smircich 1997).

Postmodern research challenges established ways of thinking and it legitimises previously excluded way of knowing. A postmodernist researcher doesn't consider the organisational world as separate entities and units like resources, performance and management, but focuses on the continuous processes of managing, organising and ordering that shape such units. The postmodern researcher is open to the deconstruction of different types of data, images and figures to investigate thoroughly causes of phenomena.

Pragmatism research philosophy questions the relevance and differences of ontological, epistemological and axiological assumptions between various philosophies. It focuses on influencing organisational practice. Relevance of pragmatism concepts are related to actions and it attempts to combine facts and values, objectivism and subjectivism, and theory and practice. It considers and applies all research theories, hypotheses and results to practical work contexts. In other words, pragmatism is associated with reality and successful implementation of ideas and knowledge (Kelemen and Rumens 2008; Saunders *et al.*, 2019).

Pragmatist research identifies a problem and sets clear aims and objectives to solve the problem using a process of inquiry that may lead to change the researcher's values and beliefs. Defining and addressing clear research problem and research questions that leads to practical solutions is the main feature of the pragmatist research design and strategy. Furthermore, multiple research methods are applied in pragmatist research in order to get valid, reliable and credible results (Kelemen and Rumens 2008; Saunders *et al.*, 2019).

Table 3.1 summarises the five types of research philosophies and their relation to research assumptions

Ontology (nature of reality or being)	**Epistemology** (what constitutes acceptable knowledge)	**Axiology** (role of values)	**Typical methods**
	Positivism		
Real, external, independent One true reality (universalism) Granular (things) Ordered	Scientific method Observable and measurable facts Law-like generalisations Numbers Causal explanation and prediction as contribution	Value-free research Researcher is detached, neutral and independent of what is researched Researcher maintains objective stance	Typically deductive, highly structured, large samples, measurement, typically quantitative methods of analysis, but a range of data can be analysed
	Critical realism		
Stratified/layered (the empirical, the actual and the real) External, independent Intransient Objective structures Causal mechanisms	Epistemological relativism Knowledge historically situated and transient Facts are social constructions Historical causal explanation as contribution	Value-laden research Researcher acknowledges bias by world views, cultural experience and upbringing Researcher tries to minimise bias and errors Researcher is as objective as possible	Retroductive, in-depth historically situated analysis of pre-existing structures and emerging agency Range of methods and data types to fit subject matter

Table 3.1 Types of Research Philosophy in Relation to Research Assumptions (Saunders et al., 2019, p144)

Continuation of Table 3.1 the five types of research philosophies and their relation to research assumptions

Ontology (nature of reality or being)	Epistemology (what constitutes acceptable knowledge)	Axiology (role of values)	Typical methods
Interpretivism			
Complex, rich Socially constructed through culture and language Multiple meanings, interpretations, realities Flux of processes, experiences, practices	Theories and concepts too simplistic Focus on narratives, stories, perceptions and interpretations New understandings and worldviews as contribution	Value-bound research Researchers are part of what is researched, subjective Researcher interpretations key to contribution Researcher reflexive	Typically inductive. Small samples, in-depth investigations, qualitative methods of analysis, but a range of data can be interpreted
Postmodernism			
Nominal Complex, rich Socially constructed through power relations Some meanings, interpretations, realities are dominated and silenced by others Flux of processes, experiences, practices	What counts as 'truth' and 'knowledge' is decided by dominant ideologies Focus on absences, silences and oppressed/repressed meanings, interpretations and voices Exposure of power relations and challenge of dominant views as contribution	Value-constituted research Researcher and research embedded in power relations Some research narratives are repressed and silenced at the expense of others Researcher radically reflexive	Typically deconstructive – reading texts and realities against themselves In-depth investigations of anomalies, silences and absences Range of data types, typically qualitative methods of analysis
Pragmatism			
Complex, rich, external 'Reality' is the practical consequences of ideas Flux of processes, experiences and practices	Practical meaning of knowledge in specific contexts 'True' theories and knowledge are those that enable successful action Focus on problems, practices and relevance Problem solving and informed future practice as contribution	Value-driven research Research initiated and sustained by researcher's doubts and beliefs Researcher reflexive	Following research problem and research question Range of methods: mixed, multiple, qualitative, quantitative, action research Emphasis on practical solutions and outcomes

Table 3.1 Types of Research Philosophy in Relation to Research Assumptions (Saunders et al., 2019, p145)

This study is more related to pragmatism research philosophy because it applies mixed quantitative and qualitative methods, and it aims to implement practical solutions to the context of PDO. It defines the research problem and the research question, and it conducts a questionnaire to identify the impact of LDP on TL, IC, and OP. It also conduct interviews to achieve the third research objective about how to recommend a framework to develop and implement change management strategies for Leadership Development Programme (LDP) with a view to enhance Organisational Performance (OP) at PDO.

3.3 Research Design

Vogt (1993) describes the research design as the art and science of planning procedures for implementing research in order to get valid results. According to Collis and Hussey (2009) before writing a proposal, researchers should consider the following steps of research design: identify the research problem, determine the purpose, identify the main research question, select research methods and determine outcomes and timetables. All those steps were considered in the proposal of this research design. Research strategy or design options also include survey research, experimental research, case studies, action research, and archival research. Mixed research methods can be used when both quantitative and qualitative research design are applied. This study employs a mixed research design using quantitative (questionnaire survey) and qualitative research (interview). A questionnaire is developed by the researcher based on research in literature to measure the impact of Leadership Development Programme on Transformational Leadership (Bass and Avolio, 1994; Khalili, 2016), Innovation Culture (Beswick *et al.,* 2016; Degraff and Quinn, 2007; Goffin and Mitchell, 2010; and Schneider, 2017), and Organisational Performance (Garcia-Morales *et al.,* 2008; Homburg *et al.,* 1999; Kusunoki *et al.,* 1998; and Tordo *et al.,* 2013). In addition, interviews are used in this study to get more details about the challenges of the current Leadership Development Programme (LDP) and the suggested changes to recommend a framework to develop and implement change management strategies for Leadership Development Programme (LDP) with view to enhance Organisational Performance (OP) at PDO.

3.4 Research Approach

Research approach is usually concerned with theory testing (deductive approach) or theory building (inductive approach). However, a third (abductive approach) can be used to test or generate a theory by collecting and testing additional data of both deductive and inductive approaches. According to Saunders *et al.,* (2019) in a deduction approach, a theory and

hypothesis (or hypotheses) are developed from literature and research strategy is designed to test the hypothesis, whereas in inductive approach, data are collected by a conceptual framework, and a theory is generated as a result of the data analysis. Yet, in abduction approach, data are used to explore a phenomenon, identify themes and explain patterns to generate a new theory or modify an existing theory which is subsequently tested, often through additional data collection.

Table 3.2 summarises the reasons for using each type of the three research approaches as explained by Saunders *et al.*, (2019).

	Deduction	Induction	Abduction
Logic	In a deductive inference, when the premises are true, the conclusion must also be true	In an inductive inference, known premises are used to generate untested conclusions	In an abductive inference, known premises are used to generate testable conclusions
Generalisability	Generalising from the general to the specific	Generalising from the specific to the general	Generalising from the interactions between the specific and the general
Use of data	Data collection is used to evaluate propositions or hypotheses related to an existing theory	Data collection is used to explore a phenomenon, identify themes and patterns and create a conceptual framework	Data collection is used to explore a phenomenon, identify themes and patterns, locate these in a conceptual framework and test this through subsequent data collection and so forth
Theory	Theory falsification or verification	Theory generation and building	Theory generation or modification; incorporating existing theory where appropriate, to build new theory or modify existing theory

Table 3.2 Reasons for using Deductive, Inductive, and Abductive Research Approaches (Saunders et al., 2019, P.153)

This research applies combination of both deductive and abductive approaches because the deductive approach applies quantitative method using a questionnaire to test three hypothesis about the impact of leadership development on transformational leadership skills, innovation culture and organisational performance. In addition, the abductive approach is also applied because this research uses qualitative method through interviews to induce general inferences from the comments about suggested recommendations to improve the current leadership development programme. The content analysis of the interviews identifies themes and patterns to recommend a framework to develop and implement change management strategies for

Leadership Development Programme (LDP) with a view to enhance the Organisational Performance (OP) at PDO.

3.5 Research Methods

Mixed research methods quantitative and qualitative were used in this study. This part explains more details about the questionnaire survey and the interviews used in this research.

3.5.1 Questionnaire Survey

The research uses a questionnaire survey to test the three hypotheses of this study. It is designed to explore the impact of the leadership development programme at PDO on transformational leadership skills, innovation culture, and organisational performance. The first section include a consent to answer the questionnaire. Aims and objectives of the study were stated to the respondents. They had the option not respond to any question, and the survey did not include any information that could indicate the respondents' identities to ensure anonymity and confidentiality. Respondents were also informed that they had the right to withdraw at any time if they have changed their mind or if they were no longer interested to be part of this study.

The first part of the questionnaire requested that respondents indicate their job title, department, years of experience, gender, range of age, education level, and nationality. The questionnaire included 25 items to test the three research hypotheses. The first 13 items were related to transformational leadership and they were selected and modified from The Multifactor Leadership Questionnaire (MLQ) by Bass and Avolio (1994) and Khalili (2016). In addition, items 14 to 19 were selected to measure the impact of leadership development on innovation culture. Those were developed and modified from research of Beswick *et al.*, (2016), Degraff and Quinn (2007), Goffin and Mitchell (2010), and Schneider (2017). However, the last 6 items from 20 to 25 were stated to measure the impact of leadership development programme on organisational performance. Those items were developed and modified mainly from the

research of Garcia-Morales *et al.* (2008) and other studies that used the same indicators (Homburg *et al.,* 1999; Kusunoki *et al.,* 1998; and Tordo *et al.,* 2013). The questionnaire requested the respondents in the final part to make general views and suggestions about the Leadership Essentials programme (LE) at PDO. The researcher selected five academic faculty members from the faculty of commerce at Sultan Qaboos University, Oman's publicly funded national university to check the questionnaire and to make comments on suggested changes for validity purposes. Some comments were taken into consideration and some items were rewritten to avoid duplication and ambiguity. The referees have also suggested that a control group who have not taken the leadership development programme should be surveyed and their responses should be compared with the responses of experimental group who have competed the programme. Therefore, the same questionnaire with some changes was designed for the control group (questionnaire of experimental group in appendix A, and questionnaire of control group in appendix B).

3.5.2 Sample Size of Questionnaire

The target population completing the Leadership Essentials (LE) Programme since 2014 at PDO is about 750 staff. The stratified random sample of experimental group consisted of 250 staff for answering the first questionnaire in appendix A. Similarly, another random sample of the control group also consisted of 250 staff was selected to answer the second questionnaire in appendix B. The random sample was selected by the staff of the Learning and Development Centre and the researcher had no control on the sample selection. The researcher had no access to the demographic details of the 750 staff who have completed the Leadership Essentials (LE) programme since 2014. Thus, one of the limitations of this research that the researcher had no control to make sure that the sample was representative.

3.5.3 Access of Questionnaire Participants

The researcher have requested a formal permission from the management of PDO to conduct the research. After reviewing aims and objectives of the study, the management of PDO agreed to provide permission and informed the Learning and Development Centre which is responsible for all training programmes at PDO to corporate with the researcher to conduct the study. The Director of the Centre of Learning and Development and staff of the centre have requested the participants to reply to the questionnaire by email directly to the researcher's email and copy was sent to the researcher for follow up. A consent form was attached with each questionnaire to fulfil ethical requirements.

3.5.4 Interviews

Based on the literature and based on PDO's annual report (2018), two types of interviews were designed. The first type of questions were directed to senior staff and focused on the current challenges to implement four components of work at PDO. These are: 1) code of conduct and transformational leadership; 2) diversity and inclusion; 3) innovation culture; and 4) organisational performance. The last part of the interviews requested that participants make suggestions to improve Leadership Essentials Programme to enhance organisational performance. The second type of interviews were made with lecturers of Leadership Essentials Programme (LE). The respondents were asked to answer questions related to four components of (LE's): 1) design; 2) duration and delivery; 3) identifying training needs; and 4) assessment and feedback. Similarly, the last question requested the lecturers to make suggestions to improve (LE) to enhance organisational performance at PDO.

3.5.5 Sample Size of Interviews and Access of Interviewees

The sample for the first type of interviews consisted of 10 senior staff from different departments of PDO. The sample included 2 managers, 2 directors, 3 team leads, and 3 coaches.

However, the second type of interviews was conducted with the only two lecturers of (LE) at PDO. This sample was selected after discussion with the Director of Learning and Development Centre and after getting the permission from the management of PDO.

Arrangements were made with interviews to decide the convenient time and location for them to conduct the interview. They were informed that the interview would take 60 minutes approximately (see Appendix C for questions of first type of interviews with managers and senior staff, and Appendix D for questions of second type of interviews with Trainers of Leadership Essentials Programme). Participants in both types of interviews were asked to sign a consent form (Appendix E), and they had the option not to answer any question if they don't want to answer. They also had the option to stop and withdraw if they have decided to do so at any stage of the interview, and their permission was taken to record the interview on audio tape, and they were assured that their identity would be kept confidential.

3.6 Reliability Assessment of Questionnaire

The survey questionnaire consisted of three main parts to measure the impact of leadership development programme on transformational leadership, innovation culture, and organisational performance at PDO. Cronbach's Alpha test can be used to measure the internal consistency of the items of each part of the questionnaire. Value over 0.7 on Cronbach's Alpha is considered acceptable (Kula 2011). Results of reliability of pilot study are presented first, and subsequently, results of main study are presented.

3.6.1. Reliability Results on Pilot Study of Questionnaire

The pilot study was carried out on 10 staff of PDO who have completed the leadership development programme. The purpose of pilot study is to assess the validity and reliability of survey questionnaire before collecting the main data.

3.6.1.1. Transformational Leadership Skills

Many transformational leadership skills (TL) are discussed in literature. Yet, this study selected 13 items for the survey instrument to measure the impact of the leadership development programme (LDP) on (TL). The 13 items were set in a five Likert scale ranging from 1 as strongly agree to 5 as strongly disagree. Results of Cronbach's Alpha on responses of 10 staff who completed the LDP were as follows:

Cronbach's Alpha	N of Items
0.872	13

Since Cronbach's alpha is 0.872 which is over 0.7, the set of items which measure the transformational leadership skills reflect high reliability and high inter-consistency between the 13 items.

3.6.1.2 Innovation Culture

Six items of innovation culture are included in the second part of survey questionnaire. The sample of pilot study were asked to indicate their range of agreement or disagreement on the same five rating of Liker scale. Cronbach's alpha is calculated to measure reliability and inter-consistency of 6 items of innovation culture.

Cronbach's Alpha	N of Items
.941	6

Results of Cronbach's alpha is 0.941 which is over 0.7, the set of items which measure the innovation culture reveal high reliability and high inter-consistency between the 6 items.

3.6.1.3 Organisational Performance

This part of the survey questionnaire also consists of 6 items related to organisational performance. The results of Cronbach's alpha and inter-consistency between the 6 items of organisational performance as rated by the pilot sample are presented as follows:

Cronbach's Alpha	N of Items
0.885	6

The results of Cronbach's alpha is 0.885 which is over 0.7, the set of items which measure the organisational performance reflect high reliability and high inter-consistency between the 6 items.

3.6.2. Reliability Results on Main Data Collection of Questionnaire

After considering the results of the pilot study and the suggestions of 5 academic staff at Sultan Qaboos University in Oman, some changes and modifications were made to the questionnaire. Most of those changes were related to sequence, rephrasing some words and the sequence of some items. Results of inter-consistency between items of each variable transformational leadership, innovation culture, and organisational performance were taken into consideration.

3.6.2.1 Reliability of Transformational Leadership Items

The results of Cronbach’s alpha on the reliability of13 items related to transformational leadership were measured by the calculating104 responses of the control group.

Cronbach's Alpha	N of Items
0.903	13

Since Cronbach's alpha is 0.903 which is over 0.7, the set of items which measure the transformational leadership skills reflect high reliability and high inter-consistency between the 13 items. To check if 0.903 is the maximum alpha coefficient can have in this scale, these results were calculated, and presented in Table 3.3

Transformational Leadership Skills	Cronbach's Alpha if Item Deleted
1. Seek new opportunity for my department at PDO	0.900
2. Inspire my employees with PDO plan for the future	0.895
3. Make my employees committed to the plan	0.892
4. Lead by doing rather than by telling	0.895
5. Provide a good model to follow	0.895
6. Foster collaboration among work groups	0.893
7. Develop a team attitude and spirit among employees	0.890
8. Insist on only best performance	0.907
9. Show that I expect high performance from my employees	0.895
10. Show respect for my employees personal feelings	0.892
11. Behave in a manner that is thoughtful of my employees personal needs	0.896
12. Think in new ways of looking at things which used to be puzzle for me	0.892
13. Rethink some of my own ideas that I have never questioned before	0.901

Table 3.3 Reliability and Inter-consistency between items of Transformational Leadership

Only item 8 out of the above alpha coefficient of 13 items has exceeded the overall scale result of 0.903 and it has been deleted. Thus, it can be concluded that the correct combination of 13 items in the instrument measures the transformational leadership skills.

3.6.2.2 Reliability of Innovation Culture Items

The inter-consistency between six items in innovation culture scale are:

Cronbach's Alpha	No of Items
0.900	6

Results of Cronbach's alpha is 0.900 which is over 0.7, the set of items which measure the innovation culture reveal high reliability and high inter-consistency between the 6 items. To check if 0.900 is the maximum alpha coefficient can have in this scale, these results were calculated and presented in Table 3.4

INNOVATION CULTURE	Cronbach's Alpha if Item Deleted
14. Making sure that innovation strategy at PDO is relevant and understood by my employees	0.885
15. Reorganizing and aligning organisational structure in my department to the changing markets	0.881
16. Selecting suitable team structure for each project of innovation	0.885
17. Linking innovation strategy to employee development with appropriate reward and recognition system	0.876
18. Building on norms (sharing knowledge& sharing resources, taking risks, suppressing new ideas)	0.886
19. Encouraging my employees to identify new opportunities	0.882

Table 3.4 Reliability and Inter-consistency between the items of Innovation Culture

The above results showed high inter-consistency of scale items with an overall 0.900 alpha coefficient. If any of the items from scale are deleted, the alpha figure does not exceed beyond 0.900. Therefore, the scale items fit near perfectly.

3.6.2.3 Reliability of Organisational Performance Items

The inter-consistency between six items in the organisational performance scale are as follows:

Cronbach's Alpha	No of Items
0.895	6

Results of Cronbach's alpha is 0.900 which is over 0.7, the set of items which measure the organisational performance reveal high reliability and high inter-consistency between the 6 items. To check if 0.895 is the maximum alpha coefficient can have in this scale, these results were calculated and presented in Table 3.5

ORGANISATIONAL PERFORMANCE	Cronbach's Alpha if Item Deleted
20. Increasing existing assets utilization	0.875
21. Expanding new (products, markets& partners)	0.876
22. Enhancing profitability of existing customers	0.869
23. Reducing cost expenses & eliminating defects & improving quality	0.873
24. Enhancing employee retention	0.888
25. Enhancing competitive advantages in health, safety, environment and community investment	0.879

Table 3.5 Reliability and Inter-consistency between the items of Organisational Performance

The above results on reliability tests, reassured the stability of the scale having 0.895 of alpha coefficient. It is clear that 0.895 cannot be exceeded when deleting any of the items from the scale. Thus, the above combination of items indicate high inter-consistency.

3.6.3 Summary of Reliability Assessment

Results of Cronbach's Alpha on both pilot sample and actual main data sample indicate that there is no big difference in final values, and both were above 0.70. Table 3.6 presents a summary of values of Cronbach's Alpha on both samples.

Variable	Items	Pilot	Main
Transformational Leadership	13	0.872	0.903
Innovation Culture	6	0.941	0.900
Organisational Performance	6	0.885	0.895

Table 3.6 Summary of Cronbach's Alpha Values for Pilot and Main Samples

Since Cronbach's Alpha values for both pilot and main samples were above 0.70, then each matrix was reliable and inter-consistency between scale items was good.

3.7 Validity Construct of Questionnaire

The purpose of checking the validity of a measurement instrument is to find out to what extent the tool (i.e. questionnaire or interview) measures what it is designed to test. There are many statistical analysis techniques to determine validity of research instruments. Yet, most validity construct measurements use Exploratory Factor Analysis (EFA), and Confirmatory Factor Analysis (CFA) despite the limitations of each technique (Kline 2005, Garson 2009, Jaccard & Wan 1996, and Garver & Mentzer 1999, Kula 2011).

This study uses two main measurements to check validity construct. The first is Exploratory Factor Analysis (EFA) using pattern matrix, and the second is Confirmatory Factor Analysis (CFA) using 3 model fit indexes: a) Root Mean Square Residual (RMR), b) Comparative Fit Index (CFI), and c) Root Mean Square Error of Approximation (RMSEA). Each measurement has different cut-off value for a good fit of model. Kula (2011) provides a table of model fit index and values of cut-off criteria as Table 3.7 presents:

Index	Shorthand	Cut-off Criteria	Author
Chi-square	$\chi 2$	Smaller the better	Schermelleh-Engel et al. (2003); Wan (2002); Garson (2009)
Chi-square associated p value	p	$\geq .05$	Schermelleh-Engel et al. (2003); Wan (2002); Garson (2009)
Chi-square / Degree of Freedom	$\chi 2$ / df	≤ 2 ≤ 3 ≤ 4	Ullman (2001); Kline (1998); Wan (2002); Kline (2005)
Root Mean Square Error of Approximation	RMSEA	$\leq .05$; good $.05 < \text{value} \leq .08$; acceptable	Browne and Cudeck (1993); Wan (2002); Schumacker and Lomax (2004); Garson (2009) Wan (2002); Schermelleh-Engel et al. (2003)
Root Mean Square Error of Approximation associated p value	PCLOSE	$\geq .05$	Garson (2009)
Tucker-Lewis Index	TLI	$.90 \leq \text{value} < .95$; acceptable $\geq .95$; good	Hoe (2003); Hu and Bentler (1999); Schumacker and Lomax (2004)
Comparative Fit Index	CFI	$.90 \leq \text{value} < .95$; acceptable $\geq .95$; good	Hu and Bentler (1999); Schreiber, Stage, King, Nora, and Barlow (2006)
Standardized Root Mean Square Residual	SRMR	$\leq .05$; good $.05 < \text{value} \leq .08$; acceptable	Garson (2009); Wan (2002); Hu and Bentler (1999); Thomspson (2004)
Hoelter's Critical N	Hoelter Index	$75 \leq \text{value} < 200$; acceptable ≥ 200 ; good	Wan (2002); Garson (2009); Garson (2009)

Table 3.7 Model Fit Index and Cut-off Values (Kula, 2011)

3.7.1 Exploratory Factor Analysis (EFA)

According to Finch *et al.*, (2016) Exploratory Factor Analysis (EFA) can be used to measure construct validity. It reduces data to cluster statistically interdependent items together by applying a covariance of set of observed variables. In this study, the 25 items in the three matrices were grouped together to generate factors and connected items for each factor. Pattern matrix measurement was used in SPSS to measure EFA of the 25 items in the survey instrument. Osborn (2015) notes two types of rotation that should be taken into consideration when using EFA: the first is orthogonal rotation which assumes factors are not correlated with each other, and the second is oblique rotation that expects that factors are correlated. This study

assumes that most of the 25 items are correlated with each other to a certain extent. Thus, oblique rotation can be assumed in this study. Table 3.8 presents results of pattern matrix how the 25 items of the survey are related to three factors.

	Component	
	1	2
q1	.514	
q2	.603	
q3		.508
q4		.692
q5		.701
q6		.840
q7		.646
q8		.824
q9		.609
q10		.830
q11		.840
q12		.639
q13		.641
q14	.745	
q15	.796	
q16	.617	
q17	.870	
q18	.630	
q19	.625	
q20	.786	
q21	.785	
q22	.882	
q23	.791	
q24	.811	
q25	.715	

Table 3.8 Pattern Matrix showing 2 rotation factors

The above pattern matrix combined the 25 items into two factors loading instead of three. Factor loading on components that have value of 0.4 can be included under any factor (Baggio & Klobas 2011; Wu 2008). Resuts indicated that items 3 to 13 about Transformational Leadership were grouped under factor 2, while the remaining items 14 to 25 of innovation culture and organisational performance and the items 1 and 2 of TL were combined under factor 1. The results of pattern matrix accepts the construct validity of data, but in the loading, it combined the 25 of the survey items into 2 factors only. Table 3.9 explains the total variance, and Table 3.10 presents the Component Correlation Matrix.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	13.974	55.895	55.895	13.974	55.895	55.895	12.539
2	1.730	6.920	62.815	1.730	6.920	62.815	11.491
3	.909	3.637	66.452				
4	.774	3.098	69.550				
5	.723	2.892	72.442				
6	.616	2.465	74.907				
7	.603	2.413	77.320				
8	.559	2.235	79.556				
9	.521	2.082	81.638				
10	.502	2.006	83.644				
11	.419	1.678	85.322				
12	.387	1.548	86.870				
13	.364	1.455	88.325				
14	.355	1.422	89.747				
15	.331	1.326	91.072				
16	.300	1.201	92.273				
17	.277	1.109	93.382				
18	.270	1.082	94.464				
19	.262	1.048	95.511				
20	.250	.998	96.509				
21	.228	.912	97.422				
22	.198	.793	98.215				
23	.171	.685	98.900				
24	.148	.591	99.490				
25	.127	.510	100.000				

Table 3.9 Total Variance Explained

Component	1	2
1	1.000	.685
2	.685	1.000

Table 3.10 the Component Correlation Matrix

3.7.2 Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) is a statistical method used to test how well the measured variables represent the number of constructs. As a measurement model, CFA is concerned with the relations between measures of constructs, indicators, and the construct they were intended to measure (Hoyle, 2004). Figure 3.2 shows the loadings of each item on its respective factor.

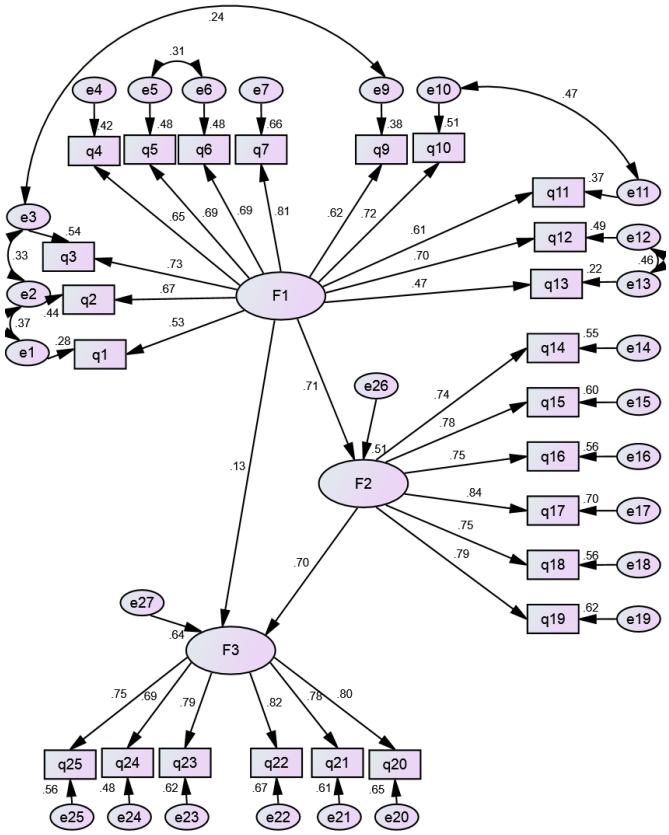

Figure 3.2 Items loadings on Three Factors

All of the loadings were significant ($p < .001$) indicating that each item measured its factor validly. All of the fit indices provide support to fit of model to data. This is also shown on Figure M, the correlations among the three factors. Factor 1 (Transformational Leadership), and Factor 2 (Innovation Culture) were related significantly ($r = .71$). Similarly, Factor 2 (Innovation Culture) and Factor 3 (Organisational Performance) were related significantly ($r = .70$). However, Factor 1 (TL) and Factor 3 (OP) were related but marginally. It should be noted

that item 8 in Factor 1 (TL) was dropped from the analysis as its contribution to the measurement of transformational leadership was weak.

3.7.2.1 Root Mean Square Residual (RMR)

RMR and SRMR measure the square root or average standardized between the assumed model and the observed model covariance by taking into consideration the standardized residuals. SRMR value lower than .05 is considered as a good fit, and less than .08 is seen as adequate fit (Garson 2009). Table 3.11 presents results of SPSS on RMR and it reflects a good fit index.

Model	RMR	GFI	AGFI	PGFI
Default model	.052	.784	.733	.635
Saturated model	.000	1.000		
Independence model	.298	.187	.117	.172

Table 3.11 RMR Goodness of Fit Index

The RMR value of .052 indicates that the difference between the predicted model and the observed model covariance is good.

3.7.2.2 Comparative Fit Index (CFI)

CFI is also described as Bentler Comparative Fit Index (Kula, 2011). CFI examines the difference between data and the assumed model. It takes into account the chi-squared test of model fit, and the normed fit index when sample size is adjusted. The model can be accepted if the value of CFI is greater than .90. This means that 90% of the covariation in the actual data can be reproduced by the suggested model. Researchers recommend that CFI values above .95 values demonstrate good fit and CFI values between .90 and .95 are considered acceptable model fit (Hu and Bentler, 1998; Schreiber, Stage, King, Nora, and Barlow, 2006). CFI results of this study are presented in Table 3.12.

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.780	.751	.902	.887	.900
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Table 3.12 CFI Value of Model Fit

It is clear from the above table that the value of Comparative Fit Index (CFI) is .90. Thus, it is considered as acceptable and a valid model fit.

3.7.2.3 Root Mean Square Error of Approximation (RMSEA)

RMSEA is not concerned with sample size. It looks at the difference between the proposed model with the best estimated limit and the population covariance matrix. The recommended values of RMSEA as indication of good model fit is .05 or lower (Browne and Cudeck, 1993; Wan, 2002; Schumacker and Lomax, 2004; Garson, 2009). Table 3.13 presents results of RMSEA fit model of this study

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.078	.064	.092	.001
Independence model	.231	.221	.242	.000

Table 3.13 RMSEA Fit Model

Results of RMSEA is .078 which indicate an acceptable valid model fit.

3.7.3 Summary of Validity Assessment of Questionnaire

The results of EFA have some shown limitations that it is difficult to control the loadings of the respective factors, and Pattern Matrix techniques showed only 2 rotation factors instead of 3 factors. Yet, the component correlation matrix was .685 which is good validity fit. In addition, results of CFA and all of the loadings were significant ($p < .001$) indicating that each item measured its factor validly. The correlations existed among the three factors. Factor 1 (Transformational Leadership), and Factor 2 (Innovation Culture) were related significantly ($r = .71$). Similarly, Factor 2 (Innovation Culture) and Factor 3 (Organisational Performance)

were related significantly (r = .70). However, Factor 1 (TL) and Factor 3 (OP) were related but marginally. All of the fit indices provide support to fit of model to data. Results of RMR, CFI, and RMSEA showed good and acceptable valid model fit.

3.8 Validity and Reliability of Interviews

Validity and reliability of qualitative research has been critically discussed in research (Niemann-Struweg and Grobler, 2011). Validity tests are carried out to measure to what extent the instrument reflects the phenomenon under scrutiny, whereas the aim of reliability is to find out if the measurement yields the same results when it is repeated (Saunders *et al.,* 2009). Validity in qualitative research is associated with trustworthiness and authenticity (Denzin and Lincolin, 2000). The credibility of qualitative research is limited especially when interpretation and explanation of researcher or interviewer is subjective and when it does not reflect the respondents' views. Thus, to enhance construct validity and accuracy, transcripts should be checked and reviewed by respondents (Bradley *et al*., 2007). Validity indicators can be found in the reality of propositions, inferences, and generalization of findings and conclusions to other organisations (Trochim, 2006). Validity can be accepted when theories, models, concepts, and categories describe a reality with a good fit (Yin, 2004).

All 12 interviews were recorded, transcribed and cross-checked by the researcher and a friend to ensure that any unclear words from interviewees were interpreted and entered correctly. Transcripts were checked and compared with the voice recorder and researcher's written notes of the interviews. Each interviewee was asked to review the transcripts and to make changes if required. All 12 interviewees had nothing to add or change to the transcripts. One full interview transcript with senior manager is attached in Appendix F, and another full interview transcript with a trainer and can be found in the Appendix G. Subsequently, template analyse technique was used to analyse data of interviews.

3.9 Target Population

The total population of staff at PDO in 2018 were 8596 including senior staff (PDO's Sustainability Report, 2018). The targeted population for the questionnaire who completed the (LE) programme at PDO since 2014 were 750 staff. All senior technical managers and leaders from all levels, including coaches, team leaders, department heads, and functional managers were the target population for the interviews. Since it difficult to make interviews with senior staff who are working far in oil fields, data was collected from managers at PDO's headquarter in Muscat.

3.10 Sample

The sample size for data collection was 500 PDO staff members for the survey questionnaire, which were distributed to two groups: the first group of questionnaire consisted of 250 participants (Experimental Group) who completed the Leadership Essentials Programme, and the second sample was also 250 staff at PDO (Control Group) who have not joined the (LE) programme yet. Two lists of names and emails of both groups were randomly selected by the Learning and Development Centre (L&D) and provided to the researcher. The sample size for interviews were 22, including 20 senior staff and managers for the first type of interviews, and the only two trainers of (LE) for the second type of interviews.

3.11 Profile of Targeted Participants

Staff of PDO who completed the Leadership Essentials Programme, and who were selected to participate in this study have various demographic profile. A total of 250 email requests to participate in survey questionnaire were sent to 170 males and 80 females, 230 Omani staff and 20 other nationalities as selected by the Learning and Development Centre. Age of respondents was categorized into 4 groups: younger than 30, 30-39, 40-49, and over 49 years old. Years of experience were categorized into 3 groups: less than 5 years, 6-10, and 11 and

above, while educational background was classified into 4 groups: PhD, Master, BSc, and Diploma. According to the Learning and Development Centre, all targeted participants of the survey and interviews have good levels of English.

Requests for interviews were sent to 15 males and 10 females who had different job position, age, experience, educational degrees, and nationality. They were 4 senior managers, 4 directors, 6 team leaders, 6 coaches, and 2 trainers of Leadership Essentials Programme. According to the Learning and Development Centre, all targeted participants of both the survey and interviews have good levels of English.

3.12 Number of Respondents

The number of respondents for both the survey questionnaire and interviews was less than the targeted and approached samples. Out of 250 targeted and approached staff of the control group of the first type of questionnaire (experimental group), only 106 staff responded and 2 respondents were not valid. However, only 76 staff out of 250 approached staff responded to the second type of questionnaire (control group). Although 20 senior staff and managers were approached for the first type of interviews, the researcher managed to conduct interview with 10 of them only. Face to face interviews were made with 2 senior managers, 2 directors, 3 team leaders, and 3 coaches. The second type of interviews was conducted with the only targeted and approached two (LE) trainers. Table 3.14 presents numbers of targeted, approached, and received respondents for both questionnaires and interviews.

Instrument	Questionnaire		Interviews	
	Experimental Group	Control Group	Senior Managers	LE Trainers
Targeted Respondents	250	250	20	2
Approached Staff	250	250	20	2
Received	106	76	10	2
Not Valid	2	0	0	0
Actual Valid Responses	104	76	10	2
Response Rate	42.4%	30.4%	50%	100%

Table 3.14 Actual valid responses and response rate of targeted sample

3.13 Chapter Summary

Three concepts of research were discussed in this chapter. These were research philosophy, research design and research approach. This study is more related to pragmatism research philosophy since it applies mixed quantitative and qualitative research methods, and it aims to implement practical solutions to the context of PDO. The research design of the study identified the research purpose, including aims and objectives, research question, and the required methods for data collection. However, the research approach of this study applies the deduction approach for quantitative survey and abductive approach for qualitative content analysis of interviews. This chapter provided details of questionnaire and interview design, sample size, access of participants, ethical issues. Cronbach's Alpha was used to measure the reliability of pilot study to check the internal consistency of the three different parts of items of the questionnaire, and all parts were highly consistent. Cronbach's Alpha test was also carried out on the experimental sample and revealed a high consistency as well. Exploratory Factor Analysis (EFA) using pattern matrix, and Confirmatory Factor Analysis (CFI) using 3 model fit indexes: a) Root Mean Square Residual (RMR),

b) Comparative Fit Index (CFI), and c) Root Mean Square Error of Approximation (RMSEA) were applied to check validity of the survey questionnaire, and all measurements had valid score and good model fit index. Chapter four presents analysis and findings of this research.

Chapter Four

Analysis and Findings

4.1 Introduction

This chapter presents data collected from staff, trainers of the Leadership Essentials Programme (LE), and senior managers at PDO. The chapter consists of three main parts. The first part describes how data was managed and generated, processed, and stored of both quantitative (questionnaire), and qualitative (interviews). This part describes instruments for data collection, targeted population, sample size, demographic information and profile of respondents, and analysis process is summarized.

The second part is a presentation of quantitative data, which consists of four sub parts: demographic data of respondents to the questionnaire, univariate statistical analysis using SPSS software to test the three research hypotheses, and summery of general comments made by the respondents about the Leadership Essentials Programme (LE). The third part of this chapter presents analysis and findings of qualitative data of interviews using template analysis.

4.2 Data Management

This section describes data the collection process and how data was gathered, stored, and analysed.

4.2.1 Instruments

Two instruments were used for data collection: questionnaires and interviews. Questionnaires were distributed to two groups of samples: 250 staff at PDO (Experimental Group) who completed Leadership Essentials Programme, and 250 staff at PDO (Control Group) who have not joined the (LE) programme yet. Two lists of names and emails of both groups were provided to the researcher by the Learning and Development Centre (L&D). The average time

to answer the questionnaire was approximately 20 minutes. Surveys were stored in a special folder in personal computer that is locked with a username and a password, which was accessed by the researcher only.

As for the qualitative part, interviews were used. Questions related to pre-determined themes were identified based on literature and annual reports of PDO. Each interview took about 50 to 60 minutes. Two types of interviews were conducted, the first type was with senior managers, and the second type of interviews was with trainers of (LE) programme. A voice recorder was used for interviews after getting consent of participants. All recorded interviews were stored in personal computer with a protected password, which was accessed only by the researcher.

4.2.2 Demographic Distribution of Respondents' Profile

Table 4.1 presents frequency distribution of demographic background of survey respondents.

Variable	Range or Type	Experimental Group	Control Group	Total	%
Experience in Years	Less than 5	30	31	61	34
	6-10	31	40	71	39
	11 & above	43	5	71	27
Gender	Male	83	54	137	76
	Female	21	22	43	24
Age in Years	Less than 30	28	22	50	27
	30-39	48	40	88	49
	40-49	18	14	32	18
	Over 49	10	0	10	6
Education	PhD	12	0	12	7
	Master	28	41	69	38
	BSc	62	35	97	54
	Diploma	2	0	2	1
Nationality	Omani	102	73	175	97
	Non Omani	2	3	5	3

Table 4.1 Frequency Distribution of Demographic Background of Survey Respondents

4.2.3 Data Input, Authenticity, and Statistical Analysis

Statistical Package for the Social Sciences (SPSS) software was used to analyse the data collected from questionnaires, and thematic analysis techniques were used to analyse the interviews. Careful examination of received data of questionnaires by email was carried out by the researcher before entering the data into the SPSS software. Variables, coding and values of nominal and categorical responses were set in SPSS. The researcher doubled-checked the entry of data of all 180 responses of two groups (experimental and control) for both questionnaires from emails to paper, and from paper to SPSS software. Data entry was also cross-checked by a friend for authenticity. As far as the qualitative method is concerned, interviews were transcribed in thematic analysis and unwanted or irrelevant data was removed. Transcripts of all interviews with managers and senior staff, and with trainers were cross-checked with recorded audio file by friend to ensure that some unclear words from interviewees were interpreted and entered by the researcher on the transcripts with the same meaning. Multivariate tests to measure significance of hypotheses. Figure 4.1 below presents the process of data analysis

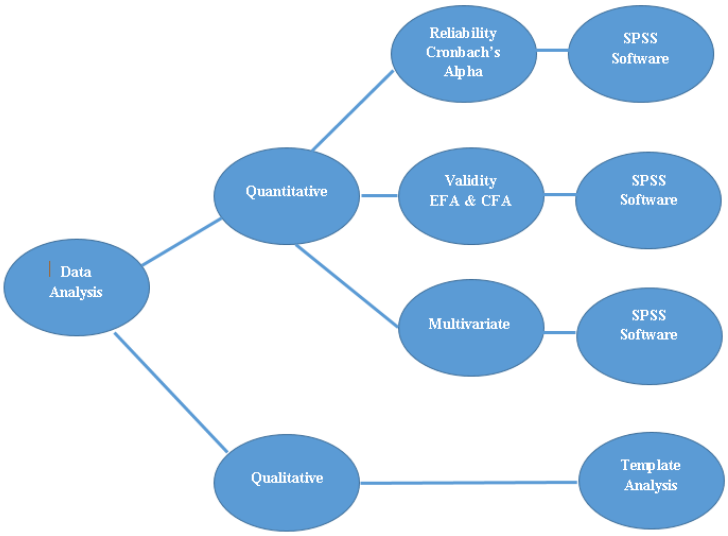

Figure 4.1 Process of Quantitative and Qualitative Data Analysis Target Population (Source: The Author)

4.2.4 Overview of Data Management

Figure 4.2 presents number of generated data, storage, and method of data analysis

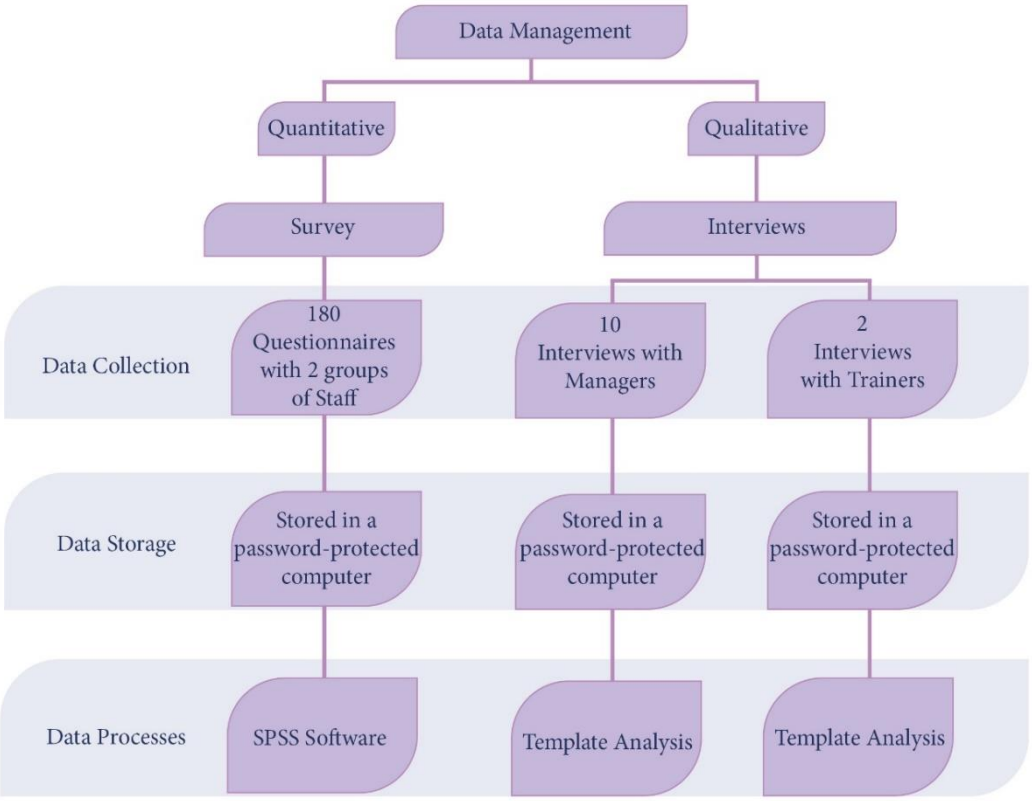

Figure 4.2 Data Management (Source: The Author)

4.3 Analysis of Quantitative Data Findings

Multivariate statistical analysis are presented to measure research hypothesis.

4.3.1 Multivariate ANOVA Analysis

Quantitative data needed for this research was collected from a survey questionnaire conducted on 180 PDO staff divided into 104 respondents from an experimental group, who completed the Leadership Essentials Programme at PDO, and 76 respondents from a control group who have not joined the programme. The collected data has been input into SPSS software to generate information which helps to examine three hypotheses related to the impact of Leadership Development Programme on Transformational Leadership, Innovation Culture,

and Organisational Performance. Multivariate ANOVA analysis was used to test the three hypotheses. The data is presented in three different aspects: univariate, bivariate and multivariate where different statistical tools have been used such as descriptive and inferential. All data is presented using appropriate charts, graphs and tabular formats. Reliability and validity tests have been undertaken to retest the results generated from research findings.

4.3.1.1 Testing Research Hypotheses

Multivariate ANOVA analysis was used to test the three research hypotheses, and to measure the impact of Leadership Development Programme on factor 1 (Transformational Leadership), factor 2 (Innovation Culture), and factor 3 (Organisational Performance). The results of the experimental (who have completed PDO's Leadership Essentials Programme) n= 104, and the control group (who have not joined the programme) n= 76 can be described below.

4.3.1.1.1 Impact of the Leadership Development Programme on Transformational Leadership (RH1)

Research hypothesis 1 stated: There is a significant relationship impact of the Leadership Development Programme (LDP) on the development of Transformational Leadership (TL) at PDO. Means and standard deviation of Transformational Leadership for each of the experimental and control groups is presented in Table 4.2.

Descriptive Statistics				
	Exp group1; cont group 2	Mean	Std. Deviation	N
Factor1 TL	Experiment	50.5769	6.89265	104
	Control	35.8947	3.36483	76
	Total	44.3778	9.21752	180
Factor2 IC	Experiment	21.3558	4.24016	104
	Control	15.5395	2.10042	76
	Total	18.9000	4.52689	180
Factor3 OP	Experiment	20.6442	4.62353	104
	Control	14.6711	2.34030	76
	Total	18.1222	4.83199	180

Table 4.2 Means between Subjects and Factors

Table 4.2 shows the means and standard deviation of the transformational leadership for each of the experimental and control groups. There is a clear difference between the two groups, indicating that for Transformational Leadership, the mean of experimental group is 50.57 whereas the mean of the control group is 35.89, and for Innovation Culture, the mean of experimental group is 21.35 whereas the mean of the control group is 15.53. As for Organisational Performance, the mean of the experimental group is 20.64 while the mean of the control group is 14.67. Furthermore, Table 4.3 presents multivariate tests of the treatment and it indicates that (LDP) produced significant differences between the experimental and control groups in all three factors (Transformational Leadership (F1), Innovation Culture (F2), and Organisational Performance (F3).

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.983	3393.110[b]	3.000	176.000	.000	.983
	Wilks' Lambda	.017	3393.110[b]	3.000	176.000	.000	.983
	Hotelling's Trace	57.837	3393.110[b]	3.000	176.000	.000	.983
	Roy's Largest Root	57.837	3393.110[b]	3.000	176.000	.000	.983
Group	Pillai's Trace	.623	97.018[b]	3.000	176.000	.000	.623
	Wilks' Lambda	.377	97.018[b]	3.000	176.000	.000	.623
	Hotelling's Trace	1.654	97.018[b]	3.000	176.000	.000	.623
	Roy's Largest Root	1.654	97.018[b]	3.000	176.000	.000	.623

Table 4.3 Multivariate tests

Results of table 4.3 indicates that the Leadership Development Programme (LDP) produced significant differences between the experimental and control groups in all three factors (Transformational Leadership, Innovation Culture, and Organisational Performance), as Wilks lambda = .377, $F_{(3, 176)} = 97.02$, $p < .001$. Partial eta squared was .623, meaning that the treatment (LDP) explained more than 60% of the variance in the three dependent variables together. Table 4.4 presents tests of between- subjects' effects, and it shows the effect of treatment (LDP) on each of the dependent variables.

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Factor1	9465.769[a]	1	9465.769	293.408	.000
	Factor2	1485.482[b]	1	1485.482	121.141	.000
	Factor3	1566.698[c]	1	1566.698	106.741	.000
Intercept	Factor1	328338.657	1	328338.657	10177.422	.000
	Factor2	59774.393	1	59774.393	4874.584	.000
	Factor3	54764.587	1	54764.587	3731.168	.000
Group	Factor1	9465.769	1	9465.769	293.408	.000
	Factor2	1485.482	1	1485.482	121.141	.000
	Factor3	1566.698	1	1566.698	106.741	.000
Error	Factor1	5742.543	178	32.261		
	Factor2	2182.718	178	12.262		
	Factor3	2612.613	178	14.678		
Total	Factor1	369698.000	180			
	Factor2	67966.000	180			
	Factor3	63294.000	180			
Corrected Total	Factor1	15208.311	179			
	Factor2	3668.200	179			
	Factor3	4179.311	179			

a. R Squared = .622 (Adjusted R Squared = .620)

Table 4.4 Tests of Between-Subjects Effects

It is clear from Table 4.4 that Transformational Leadership was most influenced by the treatment (LDP) as $F(1, 178) = 293.408$, $p < .001$. Also, more than 60% of the variance in Transformational Leadership was explained by Leadership Development Programme. Therefore, there is a significant impact of Leadership Development Programme on Transformational Leadership and thus the research hypothesis 1 can be accepted.

4.3.1.1.2 Impact of the Leadership Development Programme on Innovation Culture (RH2)

Research hypothesis 2 stated: There is a significant impact of the Leadership Development Programme (LDP) on Innovation Culture (IC) at PDO.

Table 4.2 shows the means and standard deviation of the Innovation Culture for each of the experimental and control groups. There is a clear difference between the two groups, indicating that the mean of experimental group, who have completed the LDP for Innovation Culture is 21.35, which is higher than the mean of the control group 15.53 who have not commenced the LDP.

In addition, it is clear from table 4.4 that Innovation Culture was most impacted by the treatment (LDP) as $F(1, 178) = 121.141$, $p < .001$. Also, more than 40% of the variance in Innovation Culture was explained by treatment. Therefore, there is a significant impact of the Leadership Development Programme on Innovation Culture and thus the research hypothesis 2 is attained.

4.3.1.1.3 Impact of the Leadership Development Programme on Organisational Performance (RH3)

Research hypothesis 3 stated: There is a significant impact of the Leadership Development Programme (LDP) on Organisational Performance (OP) at PDO.

Table 4.2 shows the means and standard deviation of the Organisational Performance for each of the experimental and control groups. There is a clear difference between the two groups, indicating that the mean of experimental group, who have completed the LDP for Organisational Performance is 20.64, which is higher than the mean of the control group 14.67 who have not commenced the LDP.

In addition, it is clear from table 4.4 that Organisational Performance was most impacted by the treatment (LDP) as $F(1, 178) = 106.741$, $p < .001$. Also, more than 37% of the variance in Organisational Performance was explained by the LDP treatment. Therefore, there is a significant impact of Leadership Development Programme on Organisational Performance and thus, the research hypothesis 3 is not rejected.

4.3.2 General Comments about Leadership Essentials Programme

The last question of the questionnaire asked the experimental group who have completed the programme to make general comments and suggestions about the Leadership Essentials Programme at PDO. About 33 respondents only answered this question out of 104 respondents. The narrative comments were categorized as general positive comments, delivery and assessment, participants, content and skills, and coaching and follow up. Most of the respondents who answered this question appreciated the structure, content, and delivery of LE programme. They state:

- *"Leadership Essential Program is considered by most of the staff as one of the best courses ever attended. The structure of the course and the syllabus enhance the staff morale with regard to the leadership. In addition it gives the most useful essential of leadership in very smart and simple ways which increase the possibility of implementing the best practice of leadership."*(Senior Financial Analyst).

- *"The program enhances the soft skills needed to communicate with staff and colleagues. It gives guidelines to how to conduct a fair, honest and fruitful conversation. This program works best within an environment encouraging such practices and recognizing great leaders."* (Senior Exploration Geoscientist).

- *"Overall, the course is good. It provides the participant with soft skills like time management, collaboration and presentation skills. In additions, it gives some tips on how to become a successful leader."* (Process optimization engineer).

- *"It allows employees to practice new skills and gain experience, Increase employee engagement, and Implement an effective leadership style."* (Geoscientist Data Management).

- *"Leadership programs always inspirational for me where I like to join and get benefits from the great information. Talking about leadership skills, team work, etc. is always interesting. Giving new prospective to the way I live my life. I hope that I can share such knowledge to my team to have well-structured team delivering great deliveries to the business."* (Corrosion control Engineer).

- *"The programme is a very enriching one with various objectives. It is more dynamic to a point it seems to get close to the level and the interest of the attendees. It has some open discussions on general topic just to get everyone refreshed and involved. Games and activities are very interesting and they are lots of fun because they carry many challenges."* (Continuous improvement lean coach).

- *"It is one of the best subjects that PDO emphasizes on, and it is targeting to transfer people to be future leader. The program is designed to submit the information in an easy and understood way."* (Development Cost & Planning Engineer).

- *"The Programme is more into developing Fundamentals of leadership skills. This is beneficial for those to be leaders" as well as Existing leaders, reminding them the basis of Leading. The course is teaching different concepts in terms of coaching, motivating, and mentoring. The best part of the course is the presenters, Fahim and Matt who make*

the course interesting by discussing different topics, games and different activities not just theories."(Geoscientist Data Management).

However, some respondents provided suggestions to improve delivery and assessment of LE Programme. These are quoted below:

- *"It is a very useful program, however, it needs to be improved by inviting CEOs and seniors to the sessions to enhance the knowledge and share their view, challenges and best practices."* (Process optimization engineer).

- *"I think the quality of the course might start dropping as the course has become a mandatory for progression (for some employees) and their interest is more on the attendance certificate rather than empowering their leadership skills."*(Mechanical Construction Engineer).

- *"It is very good program, but we need consistency and sustainability the same as we treat HSE in PDO. We need to create that culture, and one way is to keep this program running in many means like leadership flashes, weekly meetings ...etc."* (Cargo Haulage Supervisor).

Furthermore, other respondents emphasized the importance of candidate's selection for the LE Programme. They commented on the participants trainees as follows:

- *"The LE Program is more suited for graduates up to JG5 in my opinion. Other programs should be in place for more experienced staff."* (Continuous improvement leader).

- *"It is one of best in-house courses delivered by PDO. I suggest to extend the training to other Governmental and private entities. The practical and discussion elements of the course are far more than the theory part."* (Production Supervisor).

- *"LE model in PDO should be empowered to team leaders first than other employees."* (Exploration Geoscientist).

- *"The training been given a high importance than it should be, and* brothering *employee to do it unnecessarily. It should be for fresh graduate engineer. If PDO wants to do leadership training for experienced employee, it should be higher level training and more professional."* (Senior Well Integrity Engineer).

As far as content and skills are concerned, the following comments and suggestion were emphasized by the respondents to improve the LE Programme:

- *"Talking about me, I don't remember exactly what we took but I think it has make a difference on my thinking way." (*Mechanical Construction Engineer).

- *"Many aspects discussed in each model are repeated, this needs to be modified to a new version."* (Exploration Geoscientist).

- *"Overall, good programme, new enhancements need to be added to include innovation, continual improvement, etc."* (Corporate Environment Advisor).

- *"I really enjoyed the journey of LE Program, however, I am not confident to say that most of leadership skills and achievement were because of LE. PDO has provided lots of training, courses, CBD tasks where all along with LE program helped to improve and build our leadership skills."* (Corporate Environment Advisor).

Finally, comments related to coaching, mentoring, and follow up support were made by the respondents as follows:

- *"PDO is not supporting the new generation and the new ideas, even too many of the leader in PDO are having old mind and they don't want to change the way of thinking, in other hand, Omani having issue when their becoming leader and responsible of some staff, which are: 1- Taking everything as personal issue even if it's related to the work, 2- Ego will be build up when they feel that they have power on their staff."* (Senior Exploration Geoscientist).
- *"As program, theoretical it works, however back to working environment no innovation/creativity is encouraged, basically teams are busy to follow day-to-day task."* (Learning Adviser Wells).

- *"The leadership program is a very good program in enhancing the leadership skills at the work site, but there are difficulties we faced because of the old mind and different people aspects. Also when it comes to maintain the production at site at any means. Also, every one need to show his mind set to management on others hands and cost at any means without taking into consideration others responsibility and his normal duty."* (Mechanical Engineer).

In general, the respondents had different views about the LE Programme. Although some of them appreciated the structure and delivery of the programme, other respondents emphasized the importance of making changes related to delivery and assessment, selection of candidates, content and skills, and coaching and follow up support.

4.4 Analysis of Qualitative Data Findings

Data of two types of interviews were made with 10 senior staff and managers and two trainers of Leadership Essentials Programme (LE) at PDO. Each interview took an average range of about 50 to 60 minutes, using semi-structured questions. This part presents the results of the analysis of interviews. It describes the validity and reliability of interviews, the samples of the two types of interviews, the steps of the process of template analysis and of the final template analysis from both types of interviews with examples of some real quoted data.

4.4.1 Template Analysis

Patterns or themes of texts in qualitative data can be identified by thematic analysis. Crucial and relevant research issues, and data can be highlighted, described and explained through these patterns (Braun & Clarke, 2006). However, Template Analysis is a method of thematic analysis that uses a hierarchical coding to structure textual data to the purpose of the study (Brooks *et al.*, 2014). Flexibility is one of the advantages of template analysis that enables researchers to use any convenient style that fits their research needs (King, 2004). This means that it does not restrict the researcher to a specific interpretive or descriptive theme (Brooks *et al*., 2014)

The process of template analysis has many steps. After identifying the required text to be analysed, data should have a preliminary coding preferably linked with recognised priori themes, then organised into themes and grouped into connected clusters, then an initial coding template can be defined and applied to further data to be modified, and the final modified template set can be applied to the remaining data (King, 2004; Brooks *et al.*, 2014). Topics of priori themes are selected from the literature before collecting the data (Waring & Wainwright, 2008; King, 2004). Semi-structured interviews were used in this study, and main topics or themes were identified, and then emerging codes and sub-themes were recognised. Initial

templates were made and linked to the structure of the interviews, and templates were also modified according to the collected data. This study has two types of interviews. The first type is with 10 senior staff and managers at PDO, and the second type is with two trainers of Leadership Essentials Programme (LE) at PDO. Thus, to finalize two templates for both types of interviews, the same process and steps were followed. Figure 4.3 presents sample of both types of interviews, and figure 4.4 summarises the process of template analysis of interviews.

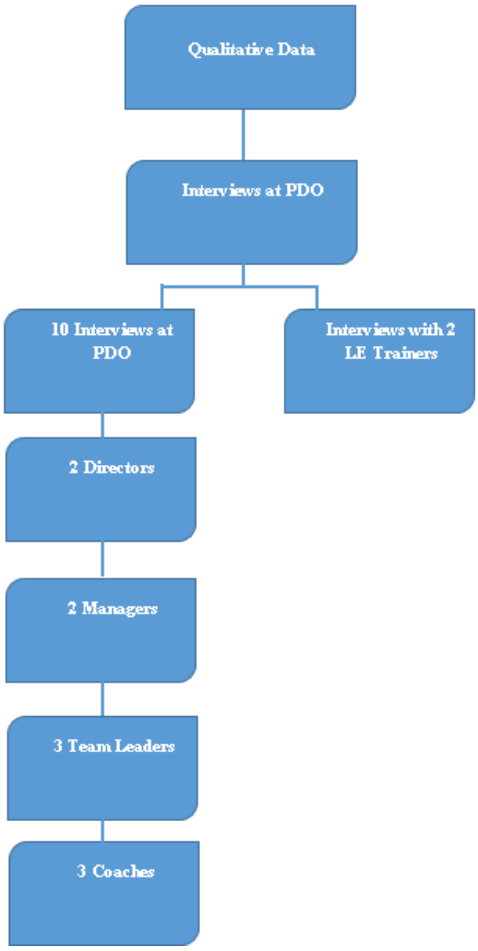

Figure 4.3 Sample of Interviews (Source : The Author).

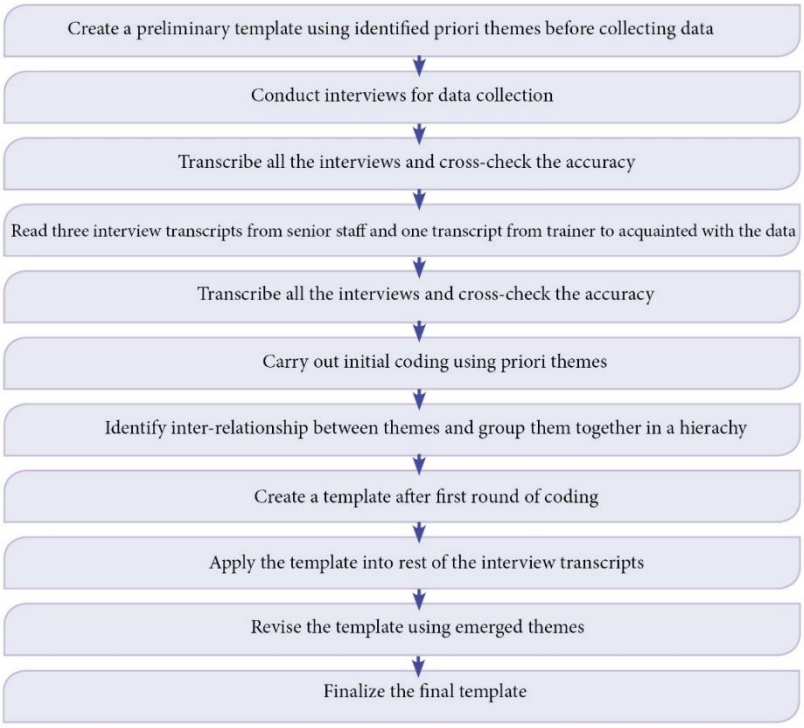

Figure 4.4 Steps of the Process of Template Analysis (Source: The Author)

After careful review of literature, initial themes were identified and structured questions of interview were set. Then, both types of interviews with 10 senior managers and two trainers were conducted, audio recorded, and data was collected. Subsequently, interviews were manually transcribed from audio files to texts, and accuracy of transcripts was checked by researcher, a friend, and revised by all 12 interviewees. Three transcripts out of ten senior managers and senior staff were selected and scrutinised by the researcher to become acquainted with the data. Key words and important texts of selected interviews were underlined, highlighted and filled to template with priori themes. After completing the first round of reading, initial list of keywords was made. Afterwards, preliminary codes and new emerging and developing themes were acknowledged, and relationship between connected themes and codes was organised and classified into groups. Sub-themes were identified as part of the main themes in a hierarchical level. Consequently, first round of coding was drafted for two types of

interviews and temporary template. The two templates of two types of interviews were filled by the remaining transcripts of interviews, with revised and emerged themes and the hierarchy of the final template was re-arranged again and finalized. The following section presents rearranged parts of some examples of quoted texts in interviews that were used to generate codes and sub-themes out of main themes, these are summarised at the end of each template.

4.4.2 Final Template From First Type Interviews With Examples of Actual Data

Ten interviews with Directors, Managers, Team Leaders, and Coaches at PDO were labelled from numbers 1 to 10 and each profile number was next to the example of text/phrases from interviews. The findings of four main themes, and their sub themes and sub-sub themes are presented in the following four tables. Table 4.5 presents the perspectives of managers and senior staff about transformational leadership.

Perspectives about Transformational Leadership in Code of Conduct	**Reasons for Collective (TL)**	**Staff Morale**	**Job Satisfaction** -*"Keeping the team happy, engaged, and challenged".(1)* **Team Efficiency** -*"As a leader you should always look to improve the team, individuals and as collective as a team, so when you move on you leave a legacy of a more efficient improved setup".(1)*
		Staff Development	**Coaching and Mentoring** -*"we focus in terms of developing staff on coaching sessions, which are frequent and not necessarily focused on day to day delivery, but sort of mentoring sessions on how to improve weak areas, and giving them feedback sometimes. I think we are quite successful at that".(1)* **Job Awareness** -*"As leaders, we need to explain to them why are we doing certain processes and projects, and this in turn would inspire and motivate, the staff to feel that they are doing something important to the company".(2)* *"We try to bridge the gap of communication by explaining to them the importance of their contribution, so we do it from the management to the director, then to manager, and to the staff, so that kind of engagement is required to make sure that staff are aware of why are they doing their job"* . (3)

Table 4.5 The perspectives of Managers and Senior Staff about Transformational Leadership

Continuation of Table 4.5 the perspectives of Managers and Senior Staff about Transformational Leadership

Perspectives about Transformational Leadership in Code of Conduct	**Focus of Leadership**	**Safety Priorities**	**HSE Compliance** -*"Safety is a priority, it is a base line".(1)* -*"PDO places high emphasizes and priority on HSE training and HSE culture".(6)* **Mandatory Training** -*"We have ABC training related to code of conduct, where staff have to go through online modules and to answer questions, and they have to pass them. These are mandatory training that applies to all staff*".(4) *"we came up with this practical training to make sure that people have hands with basic safety issues, and one of the elements is Health, Safety, and Environment (HSE), so we teach them how things should be done in operation of well engineering, we handle the procurement, what are the procedures, and we teach them about the incidents that happened before, because we have had lot of incidents in the past. We all teach them case studies about other incidents that happened in Shell Company because we work with Shell, and also give them examples of incidents happened in other oil companies".* (5)
		Leadership Framework	**Leadership Attributes** -*"Leadership attributes are behaviours that are expected from the leader, like collaboration, engagement, performance, and respect. We try to inject these leadership attributes into these Leadership Programmes. So then, the leaders apply and practice them".(4)* **Leadership Support** -*"We need to help each other as leaders because managing people is one thing, but leading people, inspiring people, coaching people in life skills and how to behave in office, or what their aspirations are and to structure them is another thing and harder and it takes time to master these leadership skills".(1)*

Table 4.5 The perspectives of Managers and Senior Staff about Transformational Leadership

Table 4.5 showed that there are two main themes about perspectives of Transformational Leadership, and there are four sub themes, and eight sub-sub themes. Figure 4.5 summarizes the main themes and sub themes of transformational leadership. Table 4.6 presents the perspectives of managers and senior staff about innovation culture.

Perspectives of Innovation Culture (IC)	**Norms of Sharing Innovation**	**How knowledge is shared?**	**Data Analytic** - *"I think data analytic is a focus area for PDO. We have dedicated an engineer here in the team to help the team to drive that through and it is quite creative guy so we are giving him the space and time to get into that role, and we are beginning to have some impact". (1)* **Sharing Good Practice** - *"We try to apply some good practices to other departments by following an approach called a Practice Worth Replicating (PWR). We copy some good examples and apply it to other departments".(3)* **Aligning Structure of Departments to Changing Markets** - *"There is a department at PDO called a new technology department, and it looks into technology. It does not focus on innovation but it concentrates on applying new technology. We don't have an innovation department at PDO. The technology department is dealing with new products, which is part of innovation".(4)* **Technology Trials** -*"We are looking at deploying fishbone technology which is a new drilling technique. We have not deployed that here yet but we are looking for opportunities of doing that. We are constantly looking for new ways of improving our delivery".(1)* - *"If you ask anybody in PDO management how you run your business, they will say after action reviews. Now in exploration as we drill, we make measurement and simultaneous log in, and we make innovative decisions before we continue drilling".* (3)

Table 4.6 Perspectives of Managers and Senior Staff about Innovation Culture

Continuation of Table 4.6 perspectives of Managers and Senior Staff about Innovation Culture

Perspectives of Innovation Culture (IC)	**Norms of Sharing Innovation**	**Norms of Sharing Resources & New Technology**	**Stakeholders Involvement** - *"We are doing innovation as a team". (1)* - *"part of the innovative initiative is to make sure that all people are involved especially the external service provides are working with our department to align all the targets and to work together as one company".(8)*
	Positive Impact	**Benefits of Innovation Team**	**Creating Ownership** -*"The contractors should be linked to what your core business is targeting. So the way we do it is first of all by engaging them and making sure that they understand the core business, and by creating ownership".(7)*
		Process Improvement	**Standard Operating Procedure** - *"We appreciate the efforts of 10 LEAN coaches in the fields now and they help us to start new LEAN project with a Standard Operating Procedure (SOP)".(5)*
	Challenges of Innovation	**HSE Risks**	**Risk Assessment** - *"We do a risk assessment before we try a new product, which is a calculated risk, which means we can control it, and if it fails we need to consider how to recover from it. So before trying new technology, we need to do the calculated risk assessment, and the recovery plan". (10)*
		Management Considerations	**Cost Considerations** -*"I think PDO as whole is a fairly innovative company, where in compare to where I come from in Shell, where the company does pick up to change quite quickly because we are onshore business we can afford sometimes to deploy new techniques which are quite expensive to try offshore, and we have some successes there".(1)* - **Change Resistance** - *"The challenges we have are that some staff feel that we are not too clever to innovate and to do LEAN projects. LEAN works for a process that at factories in Toyota garages which requires high level of conceptual thinking people, so how we can LEAN that, so people had that sort of mind-set thinking".(1)*

Table 4.6 Perspectives of Managers and Senior Staff about Innovation Culture

Table 4.6 showed that there are three main themes about perspectives of innovation culture, and there are six sub themes, and ten sub-sub themes. Figure 4.6 summarizes the main themes and sub themes of innovation culture. Table 4.7 presents the perspectives of managers and senior staff about diversity and inclusion.

Perspectives about Diversity and Inclusion (D&I)	**Significance of D&I**	**Purpose & Impact**	**Including Diverse Staff Towards Common Goal** -*"D&I is not only about dealing with males and females, it is wider than that, it means dealing with different nationalities, different cultures, different gender and including them towards common goal. It does not mean harassment or bullying. It means how to include different cultures in work performance".(4)* **Impact on Innovation & Performance** -*"We have staff from 64 nationalities at PDO which is healthy and they contribute effectively to the company performance".(4)*
	Challenges and Support of D&I	**Careful Inclusion**	**Gender Issues** *"One of the challenges that you try to include buy you might be perceived the opposite, and if you try to be safe, you will perceived the other way. So you will be seen as discriminating against or you are getting too close which may be viewed as harassment. There are many cases in the company where different actions were perceived in a different ways from different people".(2)*

Table 4.7 The Perspectives of Managers and Senior Staff about Diversity and Inclusion

Continuation of table 4.7 about the perspectives of managers and senior staff about diversity and inclusion.

Perspectives about Diversity and Inclusion (D&I)	**Challenges and Support of D&I**	**Remedy and Support**	**Consultancy and Support** -***"****We try to spread the awareness, and to encourage people to report at the lowest level to get consultations from friends and from first line support". (9)* -*" awareness programmes about D&I should be accepted by staff and understood before people they get punished or get terminated from their job, and this will give bad image about staff retain in the company".(6)* -*" Consultants of first line support are trained of how deal with problems at the low level, and how to mediate and how to calm down conflicts, and how to make people decide what to do by explaining to them the different options of solving the problem".(9)* **Omanisation Transition** - *"In PDO, in this period of transition, there is a big wave coming through now, in the last three years I have been working here, I have seen lots of experienced expatriates are leaving, and there have been replaced with talented young smart Omanis leaders who I think need more support and development"(1).*

Table 4.7 The Perspectives of Managers and Senior Staff about Diversity and Inclusion

Table 4.7 showed that there are two main themes about perspectives of diversity and inclusion, and there are two sub themes, and five sub-sub themes. Figure 4.7 summarizes the main themes and sub themes of diversity and inclusion. Table 4.8 presents the perspectives of managers and senior staff about organisational performance.

Perspectives on Organisational Performance	**Linking Business to Performance Targets**	**Level of Business Plan**	**Company Business Plan** -**"***PDO has a business plan, and each department has its own business plan, and when we make our annual target we make sure that we put target for each part of the business plan. The business plan includes operation, HSE, and personal development".(10)* **Department Business Plan** -**"***My department has eight units, and each unit has its own business plan and its own Key Performance Indicators (KPI). These KPI are linked at the staff level, unit level, department level, and the company level. The staff performance is measured according to his contribution to the unit level, and the department contribution to the company business plan".(4)* **Performance Contract** *-"The performance contract should include the business deliverable elements. Every employee should state what he wants to deliver in one year, and we agree at the beginning of the year about what needs to be delivered to achieve the corporate goals".(3)*
	Performance Review	**Focus of Company Performance Targets**	**No Harm to HSE, Business& Assets)** -**"***our target in safety is zero accidents. Goal zero target means no harm to people, no harm to environment, and no harm to assets".(9)* **Business Production Target** *-"We have the business production target. So to achieve certain target of producing oil per day, we have different departments who try to achieve that target and we track that every day, and what is the mitigation plan to revive and to recover". (5)* *-"We have certain targets of how to develop our people, what training do they have to go through, and we track monthly and quarterly plans through discussion with staff, and what kind of support and concerns do they need from top management".(3*)

Table 4.8 The Perspectives of Managers and Senior Staff about Organisational Performance

Continuation of table 4.8 Perspectives of Managers and Senior Staff about Organisational

Performance

Perspectives on Organisational Performance	**Performance Review**	**Methods of Performance Review and Improvement**	**Functional Capability Review** *-"In linking this to training, every year we have a functional capability review, for every function we do an assessment, and we identify what is the capability of the function?, and what are the gaps? And from the gaps we identify the challenge. All these gaps are identified on a departmental level not on a personal level".(4)* **Personal Performance Review** *-" We review performance contract every 3 or 6 months, and if there are any challenges, then we set new targets for the next six months of the year".(2)* *-"Each person has to put his own target and to discuss this with his supervisor. The plan is submitted in September, and the review is done in June, and the second review is done in end of October".(7)* **Performance Improvement Plan (PIP)** *-"Staff who are rated below average in their performance, advice is provided to them on how to improve their performance".(2)* *-" About 70% of staff get average rating, 20% above average, and another 10% percent below average, so for those who are below average, an improvement plan is provided to them called performance improvement plan (PIP)".(8)*

Table 4.8 The Perspectives of Managers and Senior Staff about Organisational Performance

Table 4.9 showed that there are two main themes about perspectives of organisational performance, and there are three sub themes, and eight sub-sub themes. Figure 4.5 presents main themes and sub themes of organisational performance.

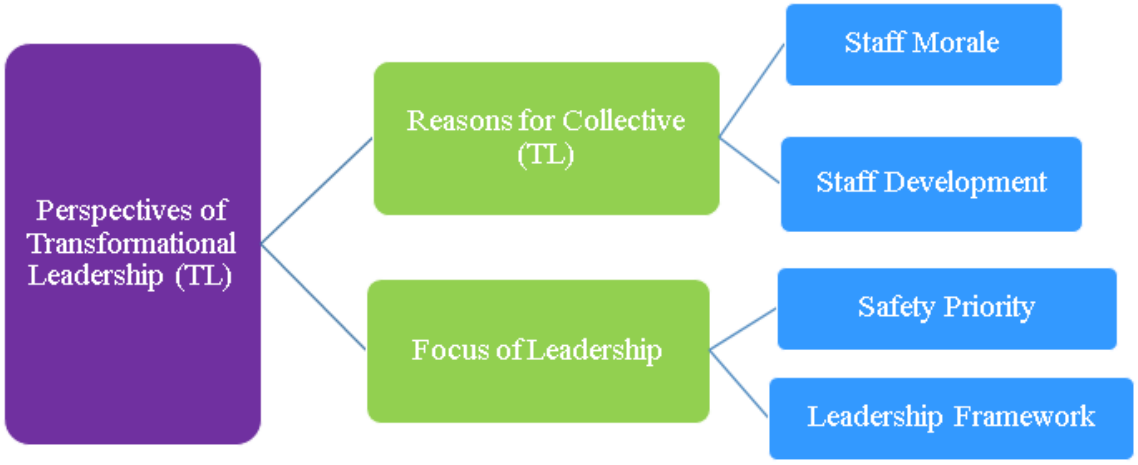

Figure 4.5 Summary of Perspectives about Transformational Leadership

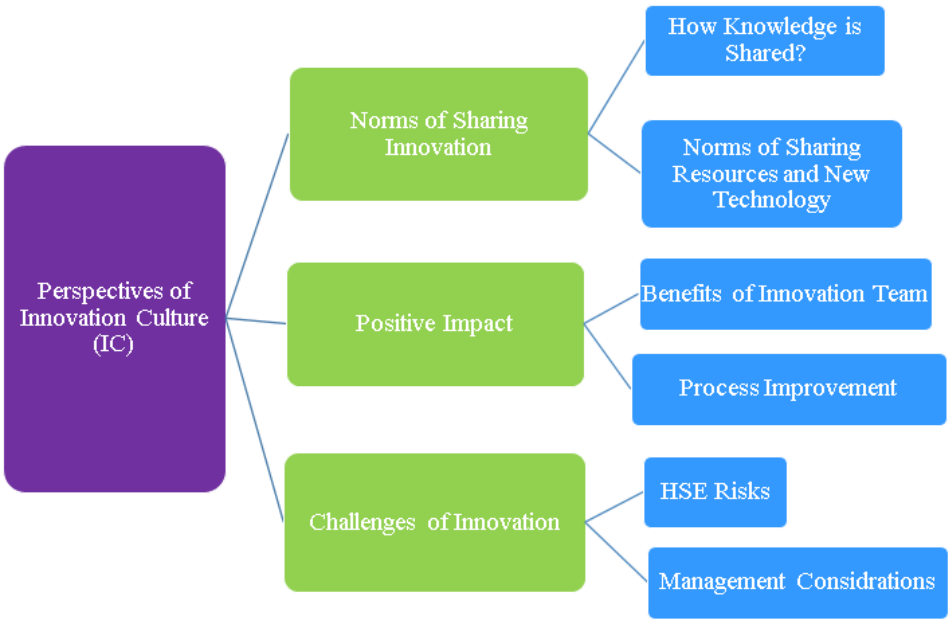

Figure 4.6 Summary of Perspectives about Innovation Culture

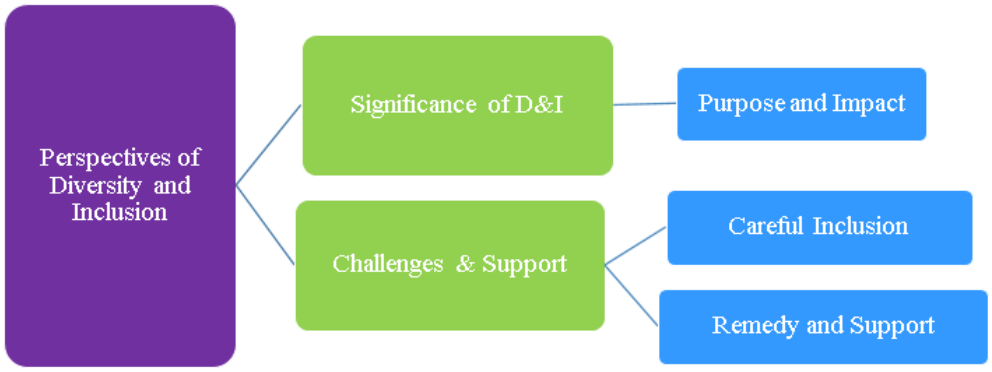

Figure 4.7 Summary of Perspectives about Diversity and Inclusion

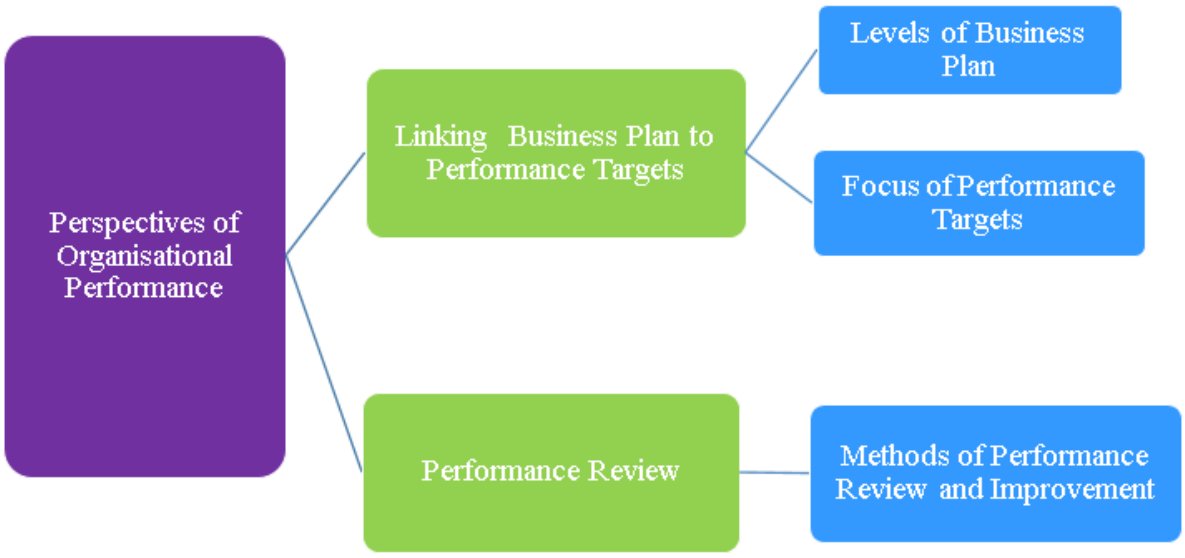

Figure 4.8 Summary of Perspectives about Organisational Performance

4.4.3 Final Template From Second Type Interviews With Examples of Actual Data

Two interviews with Trainers of Leadership Essentials Programme (LE) at PDO were labelled 1 and 2, and each profile number was next to the example of text/phrases from interviews. The findings of main themes, sub themes and sub-sub themes are presented in the Table 4.9.

Perspectives of Lecturers about Elements of Leadership Essentials Programme (LE)	**Design of (LE)**	**Selection of Trainees**	**Departments' Nomination** *-"Candidates of TL programme are nominated through a process by their team leads or their division manager" (1).* **Different Backgrounds of Trainees** *-"We have a mixture of qualified candidates, but it has been decided recently by PDO that LE should be part of the graduate development process, so now we get more graduates, but we still have candidates who don't have a degree, and most of them are who have done LE1 and LE2, and they are coming back to do LE3 and LE4. So we get a real mix who are mainly from graduates, managers, supervisors, senior supervisors" (1).* **Language Barrier** *-"On the whole, most of the candidates are males, but sometimes we get half and half but very rare. Both males and females contribute, but sometime because of language issues, some of candidates don't participate in discussion because of shyness to talk in English, it is only my assumption, because they don't want to say something wrong, it is not a big thing, it is only occasionally"(2).* **Overloaded Training** *-"Unlike senior candidates in LE who may not finish LE in 2 years due to their work commitments and responsibilities, it seems to me that other fresh candidates who have just graduated from colleges are overloaded with training and have a lot of courses in one time, and some of them get course exhausted, they got so many and they cannot remember" (2).* **Limited Senior and Expatriate Trainees** *-"We don't get higher management, but we might get those sometimes as individual performers, so we do get expats i.e. Dutch, British, and Indians as individual performers. We don't get senior managers from job group 1 and 2. LE candidates start from job group 3. We try to make sure that we have a mixed group of candidates (1).* *-"We had times when the whole group were First degree graduates, so there we do have a challenge because they don't have anything to compare their real world and to model their discussion on" (1).* **External Trainees** *-"Last year, we took also 20 candidates from Ministry of Health in our LE programme. They have done LE1 this year and they will come back next year for LE2 but that does not have much, it is very limited and it was pilot and very small scale. We did that cohort exclusively for the Ministry of Health" (1).*

			-**"** *My personal gut that some people don't contribute in discussion in LE because they are a bit concerned about other people and what they think of them when they discuss frankly some problems of PDO, but when you get different people it does not make difference"(2).*
		Challenges of Identifying Training Needs	**Lack of Identifying Departments Needs** *-"We don't really have that kind of correspondence with other departments in PDO about training needs" (2).* *-" We usually ask the group in the first day what are their needs, some candidates may ask about how to deal with difficult people, and it might not be in that module, and I can give them something. I think identifying training need should be done by higher level in Training and Development Centre" (2).* **Lack of Identifying Personal Needs** *-"The problem that some of the candidates don't have any sort of experience. Most of them are recent graduates, and they got no experience at all, and it is difficult to get that information in 360 degree tool, but certainly, there are some managers that we could really work with that. A lot of them also are not managers, and just about to get into managerial role, and they are kind of prepared for it almost" (2).*
	Delivery of Modules	**Duration**	**Lack of Time** *-" We have only 3 days to deliver each module, and it is a challenge to cover many topics in a short time, and sometimes you spend more time on some subjects than another"(2).* **Long Time Gap Between Modules** *-" After completing each module, candidates need to wait a minimum of six months before joining the next module, but if the candidate is a high ranking position from job group 3 or job group 4, then they can join the next available module, and they can finish the LE programme in a year. We ask younger graduate to take at least six month time to try to implement what they learnt and then come back" (1).*
		Focus of Modules' Content	**Module 1 Introduction to Leadership** *-"Module 1 focuses on understanding leadership (introduction into leadership), motivation, problem solving and decision making. So in first day we focus on introduction to leadership, and in second day, we cover motivation, while in the third day, we discuss problem solving and decision making" (1).* **Module 2 Achieving Your Objectives Through Yourself and Through Others** *-"In day one, we cover the topic of time management" (1).*

			-*"In day two, we do coaching" (1).* -*"we cover punctuality, clutter and procrastination. We also cover meeting management (what to do before, during, and after the meeting" (1).* -*"We also cover presentation skills during the three days, because it is related to achieving your objectives" (1).* **Module 3 Communication Skills** -*"In day one, we discuss assertiveness" (1).* -*"we also do something connected with the D&I called micro-iniquity" (1).* -*"We also teach them the opposite of micro-iniquity, which is micro-affirmation" (1).* -*"in LE3, day 2, we do feedback (giving and receiving feedback), why is that so important and should be given regularly, and should be given right way, very close to the time of the event, otherwise, it losses its value" (1).* -*"In addition, we also in LE3 day 3, we look at negotiation skills" (1).* **Module 4 Features and Characteristics of High Performing Teams** *"This includes high performing teams share knowledge, high performing teams have trust within the organisation, high performing teams always operate within norms and a good team should act if anybody is going away from the norms of the team"(1).* *"We also cover change management but not into details." (1).*
	Assessment and Evaluation	**Trainees' Assessment**	**Lack of Assessment** -*"We don't have any kind of formal assessment but if their departments ask for feedback we can give them" (1).* -*"There used to be assessments and assignments. Currently, there is a dis connect between the two, and there is no feedback given to the departments about the candidates contribution and expected change in leadership behaviour" (2).* -*"Even the ILM was purely accredited certification without any assessment or any kind of assignments or exams" (1).*
		Resources and Follow up	**Lack of Extra Resources** -*"There used to be a library over here, but the space was needed for other oil and gas facility" (1).* **Lack of Follow up** -*"We cannot really make sure if they are implementing what they have learned, it is up to them, but we are always open if they want to come back and ask us*

			about any material or website, and because we are only two LE trainers, we really stick to the delivery but our door is open if they have a question" (1). *-" I think it is very true that in LE modules we only have face to face classes, and there is no follow up from coaches or mentor after each module. It is up to the individual to practice and implement. I feel that scenario is really missing" (2).*
		Feedback Evaluation	**Online Survey** *-"We ask candidates for anything that can be improved in LE programme., and what they are happy with , and to what extent it is relevant to the work they do, and do they try to implement what they have learned in the work place?. So there is a questionnaire and it is in the computer system we have, so we don't actually give it out, a link is sent to them, and they can do it online"(1).*
	Future LE Programme	**Suggested Changes**	**Content Modification** *-" Frankly, me and my colleague don't really sit and talk what are we going to do for next year, we are constantly tweaking and changing and if we feel something is changeable we do it then. So we always feel that the programmes are being monitored and updated and good fit as we going along, so we do that continuously, so continuous improvement is that what we do in term of the course"(1).* **Sharing Experience with Neighbouring National Oil Companies** *-" It is difficult to know what they do, I think trainers can be a little bit protective about what they do, and it would be useful to know what are they doing absolutely"(2).* **Inviting Guest Speakers** *-"Guest speakers also cannot come frequently to all parts of LE to give a speech because they have other commitments" (2).* **Inviting More External Trainees** *"I don't see why we cannot do that, I have run courses where we have people from different industries, and it is generic, and it is difficult in oil and gas, but with the generic ones you have to use examples from other industries, but networks that's what the companies in UK do, and the company I used to work for, they had open courses for everybody to come in the course but is very generic" (2).*

Table 4.9 The Perspectives of Trainers about Leadership Essential Programme (LE)

Table 4.9 showed that there are four main themes about trainers' perspectives of Leadership Essentials Programme (LE), and there are eight sub themes, and 21 sub-sub themes. Figure 4.9 summarizes trainers' perspectives of Leadership Essentials Programme (LE),

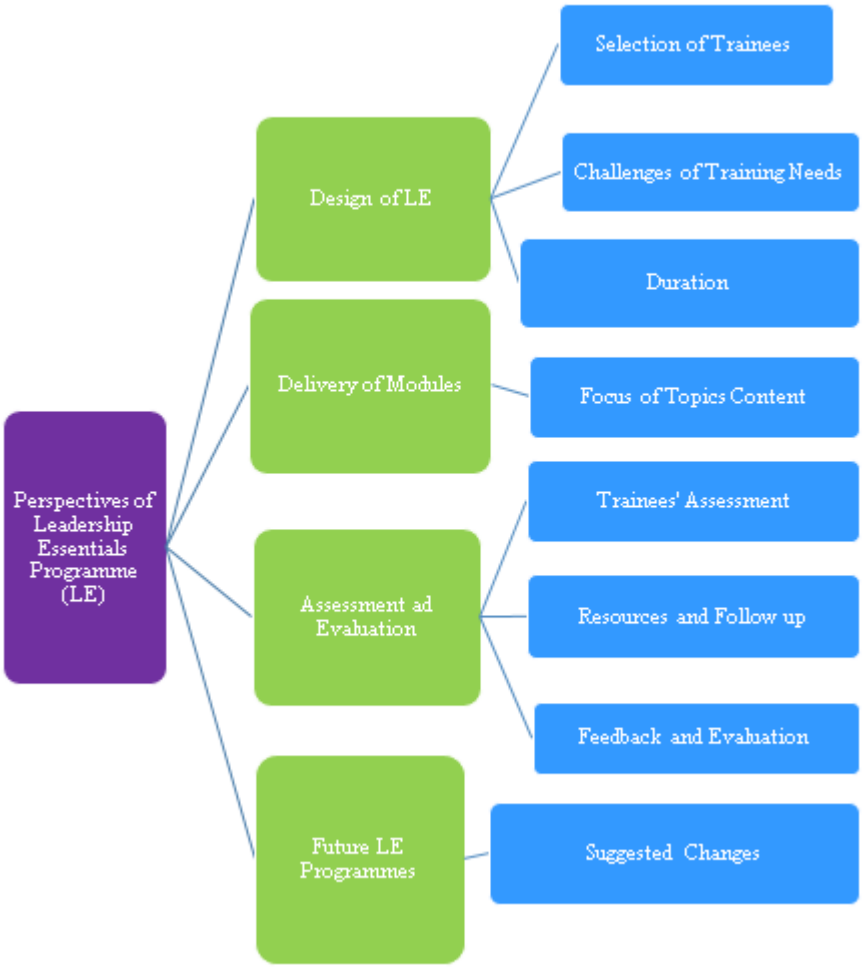

Figure 4.9 Trainers' Perspective of Leadership Essentials

4.5 Chapter Summary

Results and findings of both quantitative and qualitative were presented in this chapter. Multivariate ANOVA analysis was used to test three research hypotheses about the impact of the leadership development programme on transformational leadership, innovation culture, and organisational performance. All three hypotheses were accepted and proved that there was a

statistical significant impact of the leadership development programme on transformational leadership, innovation culture, and organisational performance using multivariate ANOVA analysis on the experimental group who have completed the leadership development programme (LE) in comparison with the control group who have not started the (LE) programme yet. The strongest finding of the questionnaire survey revealed that more than 60% of the variance in the Transformational Leadership was impacted by the Leadership Development Programme. However, more than 40% of the variance in the Innovation Culture was impacted by the Leadership Development Programme, and only more than 37% of the variance in the Organisational Performance was impacted the same programme.

The second part of this chapter presented the results of qualitative research. Template analysis techniques were used to analyse the data of 10 interviews with managers and senior administrators. Their perspectives about implementation of code of conduct at PDO revealed many issues and challenges related to the four main themes related to transformational leadership, innovation culture, diversity and inclusion, and organisational performance. The strongest findings of the interviews with managers and senior staff revealed that staff development in health, safety, and environment and providing leadership support was a priority in PDO, stakeholders were involved in sharing resources and new technology, consultancy and support was provided in diversity and inclusion, and effective methods of performance review and improvement were provided. Yet, interviews with managers and senior staff showed some challenges related to cost considerations, change resistance, gender issues, and omanisation transition. The results of template analysis for second type of interviews with trainers of the Leadership Essential Programme (LE) also highlighted some issues and challenges related to four main themes of the (LE) programme. These were design, delivery, assessment and evaluation, and suggested changes. Results showed lack of involvement of departments in

identifying training needs, limited time of duration, and lack of assessment and follow up of trainees. Discussion of findings and results is presented in the next chapter.

Chapter Five

Discussion of Findings

5.1 Introduction

This chapter presents a discussion of the research findings in relation to literature, and it attempts to answer the research question in order to achieve the research aim and objectives. The aim of this study is to provide a framework that may be used by PDO to develop change management strategies to improve the current LDP, enhance the transformational leadership and develop the innovative culture in order to enhance PDO performance. To pursue the research aim, four research objectives have been developed in line with one main research question, and three research hypotheses.

The literature review in chapter two explained types, approaches, and models of leadership development (Paine, 2017). The literature also reviewed research on impact of Transformational Leadership (TL) on Innovation Culture (IC), and Organisational Performance (OP), and the impact of Innovation Culture (IC) on Organisational Performance (OP). Yet, too little research examined the impact of LDP on TL, IC, and OP, especially in the oil and gas industry. Various models of LDP, TL, IC, and OP were identified and compared in literature. No evidence of research has been conducted to measure the impact of Leadership Development Programme on Transformational Leadership, Innovation Culture, and Organisational Performance in oil and gas industry in Oman in general and at PDO in particular. Thus, this research is expected to fill the knowledge gap on the impact of Leadership Development Programme on Transformational Leadership, Innovation Culture, and Organisational Performance at PDO. This study examined various LDP models and approaches in literature to measure the impact of Leadership Development Programme on

Transformational Leadership (TL) on Innovation Culture (IC), and Organisational Performance (OP) in oil and gas industry at PDO.

To achieve the research aim, the following main research question and three research hypotheses were answered:

Main Research Question: What is the impact of the Leadership Development Programme (LDP) on the growth of Transformational Leadership (TL), the development of Innovative Culture (IC), and the enhancement of Organisational Performance (OP) at Petroleum Development Oman (PDO) Company in Oman?

Research hypothesis 1: There is a significant relationship impact of the Leadership Development Programme (LDP) on the development of Transformational Leadership (TL) at PDO.

Research hypothesis 2: There is a significant impact of the Leadership Development Programme (LDP) on Innovation Culture (IC) at PDO.

Research hypothesis 3: There is a significant impact of the Leadership Development Programme (LDP) on Organisational Performance (OP) at PDO.

To achieve aims and objectives of this research, and to answer the research question to test the significance of the three research hypotheses, data was collected from a survey questionnaire on experimental group of PDO staff (who completed the Leadership Essentials Programme), and a control group who have not started the programme. Also, qualitative data was collected from interviews with managers and senior staff, and with trainers of Leadership Essentials Programme at PDO. This chapter discusses the findings in chapter 4 to answer the research question and hypotheses, and to achieve the research objectives.

5.2 Discussion of Quantitative and Qualitative Findings

The discussion of findings from a survey questionnaire and interviews focuses on impact of Leadership Development Programme (LDP) on three variables and themes of this study. These are Transformational Leadership (TL), Innovation Culture (IC), and Organisational Performance (OP). In each theme, the summary of findings, discussion of findings, and practical implications to stakeholders are highlighted.

5.2.1 Impact of Leadership Development on Transformational Leadership

A discussion related to the impact of the Leadership Development Programme on Transformational Leadership includes a summary of findings, discussion of findings, and practical implications to stakeholders.

5.2.1.1 Summary of Transformational Leadership Findings

Many factors of transformational leadership characteristics and behaviours were examined by previous research in the literature review. PDO's Leadership Framework had identified four desired leadership behaviours and attributes. These were: 1) treat everyone fairly and respectfully, 2) continuously engage, listen, and coach others; 3) work proactively cross boundaries ad build partnership; and 4) prioritise delivery and continuous improvement, and act as a lean role model (PDO, Sustainability Report, 2018). The literature review found that charismatic leadership and intrinsic motivation and followers' development were given more attention as factors of transformational leadership (Northouse, 2016; Bass and Riggio, 2006). Transformational leaders were described in literature review as those who have the ability to stimulate and inspire followers to achieve results that are beyond their expectations, and by engaging and influencing their followers to attain shared vision (Mackie, 2014; Hargis *et al.*, 2011). Six key behaviours of transformational leader were identified in literature by Podsakoff *et al.*, (1990). These are 1) articulate a vision that inspires the followers about the

organisation's future; 2) provide an intellectual stimulation that motivates and challenges employees to take different views on tasks and to rethink the way the job is done; 3) provide an individualised support that focuses on the employees' emotional feelings; 4) act as a role model for the employees; 5) expect high performance of their employees; and 6) foster the acceptance of group by promoting cooperation amongst employees to obtain a shared goal. Other research combined those six key behaviours into four factors that were classified as: 1) idealized influence (charisma), which has the emotional component of leadership; 2) inspirational motivation; 3) intellectual stimulation; and 4) individualized consideration.

Quantitative data was collected from experimental and control group staff of PDO to check if there was a different impact of change in Transformational leadership behaviours by answering the first 13 items of the survey questionnaire. Qualitative data of the first type of interviews was collected from managers and senior staff, and the second type of interviews from trainers of Leadership Essentials Programme (LE) to find out how Transformational leadership skills and Leadership Framework were delivered at PDO.

The results of research hypothesis 1 revealed that there is a significant relationship impact of the Leadership Development Programme (LDP) on the development of Transformational Leadership (TL) at PDO. The mean of the experimental group on factor 1 (TL) was 50.57, whereas the mean of the control group was 35.89. Transformational leadership was most influenced by the Leadership Development Programme (LDP) as $F(1, 178) = 293.408$, $p < .001$. Thus, research hypothesis 1 was accepted.

The results of interviews with managers and senior staff showed that they prefer collective transformational leadership at PDO for two main reasons: 1) staff morale: it enhances job satisfaction by keeping the team happy, engaged and challenged and it improves team's

efficiency; 2) staff development: collective transformational leadership leads to effective coaching, mentoring, and job awareness.

Managers and senior staff emphasised that as transformational leaders, safety requirements and compliance to HSE is a priority, and HSE's training and culture is mandatory and it is the base line. They also emphasised that as transformational leaders they make sure that collective team work behaves in accordance with PDO's leadership framework and job's attributes. Managers and senior staff also stressed the importance of leadership support by leading, inspiring, and coaching people. They indicated that help is also provided to their staff through consultancy of first line support in every department.

Main findings from interviews with trainers of Leadership Essentials Programme (LE) showed that there is a lack in identifying training needs, and there is no communication with the departments or the trainees about identifying training needs. The trainers of (LE) noted that the contents of the four modules of the programme included some topics related to enhancing transformational leadership skills. These topics include motivation, decision making, time management, coaching, meeting management, presentation skills, negotiating skills, presentation skills, micro-affirmation, giving and receiving feedback, negotiation skills, sharing knowledge, trust, teamwork, and change management.

5.2.1.2 Evaluation of Transformational Leadership Findings

There are few studies that support the result of the first hypotheses of a positive significant impact of leadership development programme on transformational leadership. There is more research about impact of transformational leadership on innovation and on organisational performance. Yet, the finding of the research hyothesis1 is in line with Finn (2007) who found that LDP through executive coaching, the trainees' transformational behaviour improved especially in three dimensions: individualised consideration, inspirational motivation, and

intellectual stimulation. It is also supported by other research which found that transformational leadership is a developmental process that can be trained by using multiple models and techniques of leadership development such as 360 degree feedback using MLQ, structured and well planned workshops, effective one to one coaching and by creating change to constructive and rational thinking (Kirbridge, 2006; Kelloway & Barling, 2000; Cerni *et al.,* 2010; Kelloway *et al.,* 2000). Yet, only one study in oil and gas found in literature mentioned indirectly that LDP enabled transformational leaders to engage in behaviour of individual considerations, trust and acceptance, resolving conflicts, building action plans, coaching, mentoring, and supervision (Al-Shamsi *et al.,* 2015).

There are many interpretations for the variance of means between experimental group and control group. This can be attributed to the fact that most staff of the experimental group were older than the control group. It can also be noted that most of respondents in both groups commented on the open-ended section of the survey questionnaire that they were not in leadership positions, and they were not practicing the survey's items about transformational leadership roles and behaviours. Some of them indicated that the survey was not relevant to their jobs and it should have been sent to their leaders. However, despite these comments from the respondents, more than 60% of the Partial Eta Squared variance in transformational leadership was impacted by Leadership Development Programme while the impact on Innovation Culture was 40%, and Organisational Performance was only 37%.

Interviews with managers and senior staff indicated that they prefer collective transformational leadership to enhance staff morale and job satisfaction by keeping the team happy, engaged, challenged and satisfied, and it improves team's efficiency, which is expected to lead to enhancement in organisational performance. This means that some leaders at PDO practice and use factor 1 in transformational leadership styles of idealized influence (attributes and behaviours). Also, challenging staff is related to factor 3 of intellectual stimulation, which

means that leaders stimulate their staff thinking to be creative and innovative (Northouse, 2016). This is in line with Samad (2012) who found that both innovation and transformational leadership have significant impact on enhancing organisational performance. Also, Khalili (2016) found a significant impact of transformational leadership on employees' creativity and innovation in oil and gas industry in Iran. Many studies in literature found an impact of transformational leadership on innovation and organisational performance (Elrehail, 2018; Al-Husseini and Elbeltagi, 2016; Iscan *et al.*, 2014; Vaccaro, *et al.*, 2012).

The second reason that managers and senior staff mentioned for using collective transformational leadership was staff development that leads to effective coaching, mentoring, and job awareness. This is related to factor 4 in transformational leadership styles of individualised consideration, where leaders act as advisors and try to help their staff through coaching to develop and reach their full potential (Northouse, 2016). As a manager states: *"we focus in terms of developing staff on coaching sessions, which are frequent and not necessarily focused on day to day delivery, but sort of mentoring sessions on how to improve weak areas, and giving them feedback sometimes. I think we are quite successful at that". (1)*

Managers and senior staff stressed the importance of providing training to their staff in order to enhance job awareness. They also mentioned that safety is a priority and staff compliance to HSE requirements is vital. Managers and senior staff also stressed the importance of leadership support by leading, inspiring, and coaching people. They indicated that help is also provided to their staff through consultancy of first line support in every department. This was supported by literature which found that trust relationship can be created, when coaches empower subordinates, set clear expectations, and provide feedback (Al-Shamsi *et al.*, 2015).

The Leadership Framework at PDO was also considered by managers and senior staff as a guide of expected behaviours and attributes for leaders and staff. As a coach puts it: *"I cannot*

work without engaging, respecting, and collaborating with my team, and these are the core of our business plan". (5) These expected behaviours and attributes of the Leadership Framework are related to individualised consideration (factor 4) of transformational leadership. Impact of trust, respect, and engagement on performance were evident in literature (Tatum & Fogle, 2016; AlShamsi *et al.*, 2015; Jauhar *et al.*, 2017).

Many challenges related to design, delivery, and evaluation of the Leadership Essentials Programme (LE) Programme were revealed from interviews with the trainers. These challenges included Lack of identifying training needs, limited duration for each module (3 days) and long waiting gap for next module (6 months), no formal assessment of students due to limited number of (LE) trainers (2 only), and lack of coaching, lack of follow up and no feedback after each module, and lack of extra learning resources.

Although the centre of Learning and Development (L&D) added some topics to the LE programme such as meeting management due to demands from top management, and the trainers constantly make some tuning and tweaking to the programme, yet candidates and their departments were not involved in identifying their training needs. Candidates were nominated by their departments and there was no process of selection from the centre of Learning and Development. Similar challenges were found in literature that identified leadership development why leadership development fail and to deal with it (Gurdijan *et al.*, 2014). Also, the 4MAT Learning Model identified eight steps of cognitive thinking process that should be applied to experiential learning and reflection, these were: connect, reflect, image, conceptualise, practice, extend, refine, and integrate (Palus &Horth cited in McCauley &Velsor, 2004).

5.2.1.3 Practical Implications of Transformational Leadership to Stakeholders

There are many stakeholders who can affect or who can be affected by the achievement of PDO's goals and objectives. Stakeholders include shareholders, regulatory boards, management, employees, community, and business customers, suppliers, and contractors. Although all of these share interest at PDO, part of them are more impacted by the outcome of Leadership Essentials Programme (LE) especially, business customers, suppliers, and contractors. Close stakeholders of (LE) could include top management of PDO, managers of departments, team leaders, coaches, management of Learning and Development Centre, trainers, and trainees. Top management of PDO and HR Department need to study the ROI of the LE and should find out if transformational leadership attributes and behaviour change have contributed to greater job satisfaction, employee engagement, diversity and inclusion, staff performance and job retention. HR may also gather information from business contractors and suppliers who are involved in team-work with departments about challenges that can be attributed to some missing transformational leadership behaviours and attributes. Directors, managers, team leads, and coaches of candidates should be involved in identifying their department's training needs, coaching and follow-up support after each modules with clearly defined tasks related to real projects.

As far as trainees are concerned, findings of the questionnaire showed that most of trainees have appreciated the structure and the delivery of (LE) Programme. However, several of them emphasised that the LE should be provided to team leaders first than employees. Trainees were very frank to say that most of the transformational leadership items were not relevant to them because they were not in leadership posts. Some comments of trainees also revealed that contents needs to be updated and some repetitions should be avoided.

The director and staff of Learning and Development Centre (L&D) including trainers of (LE) programme indicated many challenges such as lack of communication with trainees' departments about identifying training needs, lack of time, lack of assessment, lack of extra resources, and lack of coaching follow up. The Learning and Development Centre should consider conducting consultancy study to look for ways of optimization of the LE programme. The Learning and Development Centre needs to consider the use of 360-degree feedback instrument of identifying training needs or any other tools. Reflection practices on real project with coaching follow up is missing and 70:20:10 learning approach is not implemented in LE. The Learning and Development Centre need to make sure that more emphasis is devoted to practical activities. Extending the duration of the programme or minimising the time for joining next module, including formal assessment of students, and recruiting more trainers are issues that should be examined carefully by the Learning and Development Centre.

5.2.2 Impact of Leadership Development on Innovation Culture

Discussion related to impact of Leadership Development Programme on Innovation Culture includes summary of findings, discussion of findings, and practical implications to stakeholders.

5.2.2.1 Summary of Innovation Culture Findings

Many models and frameworks for building innovation culture in organisations were examined in the literature review such as Genome Framework (Degraff & Quinn, 2007); Pentathlon Framework (Goffinn & Michell, 2010); and Practical Framework for Placing Innovation at the Core of Business (Beswick *et al.,* 2016). The literature review also searched many definitions of innovation, culture, and innovation culture. After reviewing all definitions, this study defined innovation as introducing new commercial and positive change in products, processes, services through technology, social group and organisational learning to add value and growth

for organisations and customers. Also, many definitions of culture were examined in the literature review that related culture to shared values (Bratton & Gold, 2003), leadership styles and working practices (Beswick *et al.,* 2016), hiring and developing staff to meet customers' needs (Schneider, 2017). This study defined innovation culture as a set of new norms, values, systems and policies that are shared by leaders, employees, and customers for the benefit of organisation and stakeholders. PDO considers the deployment of new technologies as part of the company's innovative initiatives. These include hiring a chief information and digitalisation officer to conduct a coherent data strategy, and each directorate has an analytics focal point who is responsible to track ideas that unlock value from data and articulate them at the corporate level. There are over 20 projects classified as key future centric technologies out of 220 digital continuing projects across PDO such as, software robotic automation, predictive analysis, and machine learning (PDO, Sustainability Report, 2018). Technical innovation at PDO is part of its sustainable business model. Other examples of innovative activities also include solar research innovation and sustainability in energy, greater collaboration with universities and business through a research and development platform (Ejaad), and (Drone) a smart mobility and video collaboration techniques to boost field staff productivity, increase compliance and reduce HSE exposure (PDO, Sustainability Report, 2018).

Quantitative data was collected from experimental and control group staff of PDO to check if the Leadership Essentials Programme (LE) have contributed to development of best practices of innovation culture by answering 6 items of the survey questionnaire (items 14-19). Qualitative data of the first type of interviews was collected from managers and senior staff to find out if the current staff development, practices, and policies have promoted innovation culture at PDO. Collected data of the second type of interviews with trainers of Leadership Essentials Programme (LE) focused on the contribution of LE to enhance trainees' leadership capabilities in building effective innovation culture.

Results of research hypothesis 2 revealed that there was a significant relationship impact of the Leadership Development Programme (LDP) on contributing to develop best practices of Innovation Culture (IC) at PDO. The mean of the experimental group on factor 2 (IC) was 21.35, whereas the mean of the control group was 15.53. Innovation Culture was most influenced by the Leadership Development Programme (LDP) as $F(1, 178) = 121.141$, $p < .001$. Thus, research hypothesis 2 was accepted.

Results of interviews with managers and senior staff showed that they have practices of sharing knowledge and sharing resources and technology. They identified two examples of sharing knowledge: 1) Data analytic: dedicating an engineer in the department, and giving him the space and time to help the team to drive innovation, and to collect and analyse data; 2) sharing good practice: by following an approach called a Practice Worth Replicating (PWR), departments can copy some good new practices and apply it to other departments.

Furthermore, managers and senior staff identified two practices of sharing resources and technology: 1) aligning structure departments to changing markets: PDO has a new technology department, that is responsible for helping other departments to develop new products; 2) technology trials: deploying new technology or new techniques that can improve delivery, reduce cost, safe time, and increase productivity.

Findings of interviews with managers and senior staff also revealed some positive impacts and benefits of collaboration with stakeholders in projects of innovation. They indicated two practices: 1) stakeholders' involvement: PDO work is closely related to communication with customers, suppliers, contractors, and other external service providers. The involvement of stakeholders in innovative initiatives was deemed significant to align all the targets and implement innovation together as a team; 2) creating ownership: by engaging the stakeholders

first to understand the core business of PDO, then they can link innovation projects to the core business targets.

Managers and senior staff stressed the importance of process improvement in innovation culture. They appreciated the help of LEAN coaches to start new LEAN project using a technique called Standard Operating Procedures (SOP). Written SOP help staff who take over the jobs of others to continue the improvement of innovation from where others have finished.

Risk assessment was one of the findings mentioned by managers and senior staff before trying new product. Calculated risk and recovery plan are prepared before trying new technology especially in HSE.

Findings from interviews with managers and senior staff specified two challenges of innovation: 1) cost considerations: PDO operations are onshore business which is more expensive than offshore business, and although PDO picks up to change quickly, the management cannot afford to try the deployment of expensive new technology; 2) change resistance was also noted as a challenge from staff who feel that innovation require high conceptual thinking skills.

Main findings from interviews with trainers of Leadership Essentials Programme (LE) showed that nothing was taught at LE about developing norms and practices of effective innovation culture. However, findings showed that change management was covered at LE Module 4 but not into details. Trainees were taught how managers react to new ideas, team readiness for change, the change cycle, and change resistance. Innovation was covered by making people psychologically ready for change, for taking calculated risk.

5.2.2.2 Evaluation of Innovation Culture Findings

There are not many studies in literature that support the result of the second hypotheses of a positive significant impact of the leadership development programme on Innovation Culture

(IC). There is more research about the impact of Innovation Culture on organisational performance. Yet, the finding of research hypothesis two is in line with the research of Boring (2017) who found positive relationship between Norwegian enterprises' use of employee training and innovation. The study suggested that training can be directly related to innovation strategies, as it is combined with other human resources practices. Results of hypothesis two was also supported by Akinwale *et al.,* (2018) who found that training was significant in influencing technology and innovation capability in Nigerian indigenous oil firms. Similarly, Cordon-Pozo *et al.,* (2017) found a positive impact of innovation training on product innovation performance in Spanish high technology industries that are cooperating with external agents. Furthermore, the results of research conducted by Dessie and Ademe (2017) revealed that training creative thinking and motivational attributes had significant impact on supporting innovation in small enterprises in Ethiopia. Also, Fernando (2019) found that effective training and development positively affects innovation capability of clothing's' organisations. Yet, other research discovered a positive impact of innovation capabilities and innovation culture on organisational performance (Mazur & Zaborek, 2016; Phadiha & Gomes, 2016; Semuel, *et al.*, 2017).

There are many interpretations for the variance of means between experimental group and control group in relation to innovation culture. This might be because the experimental group had more experience and more exposure to other various training programmes than the control group. The trainers have indicated that they did not cover many topics abut innovation, and they only delivered small part of change management in LE Module 4. Thus it is difficult to attribute the greater mean of the experimental group than the control group in innovation culture to the impact of leadership development programme. As one of the respondents in the experimental state: *"I really enjoyed the journey of LE Program, however, I am not confident to say that most of leadership skills and achievement were because of LE. PDO has provided*

lots of training, courses, CBD tasks where all along with LE program helped to improve and build our leadership skills." (Corporate Environment Advisor).

Most of the respondents in both experimental and control groups frankly emphasised that they were not in leadership positions, and they had no idea about the innovation strategy, or they did not have the authority to change the structure, and they felt that only senior top management staff could answer such items about innovation. The difference of means between the two groups cannot be attributed only to the impact of LDP.

Findings of interviews with managers and senior staff indicated some practices of innovation at PDO related to sharing knowledge and sharing resources and technology. Two practices of sharing knowledge were mentioned: 1) appointing a dedicated staff in the department as data analytic, who is given the space and time to collect data from the team, and to analyse it, and try to provide assistance to help the team to drive innovation. This practice is in line in literature with Evensen *et al.*, (2020) research who found that less than half of 350 respondents who were executives in oil and gas from 25 countries reported that their innovative strategies are informed by data and analytics. Also, PDO appointed a Chief Information and Digitalisation Officer to conduct a coherent data strategy. It was not mentioned in the interviews if the dedicated staff at each department was getting help and advice from the Chief Information and digitalisation Officer. Attracting talented and creative thinkers to support innovation is evident in literature (PWC Report, 2013); Sharing good practice: findings of interviews with managers and senior staff showed that departments and staff are encouraged by top management at PDO to follow an approach called a Practice Worth Replicating (PWR). It helps departments to copy some good new practices and try it in their departments. Yet, it seems that this approach is part of LEAN activities to improve work and is not necessarily related to innovation.

As far as norms of sharing resources and practices at PDO, results of interviews with managers and senior staff emphasised the importance of aligning structure departments to changing

markets. They reported that a new technology department was established to foster innovation and to help other departments to develop and apply new technology. However, they were not sure if this new technology department was market-oriented, and organised by customer segments. Innovation should be embraced as means of growing revenues, and transforming the company's business (Goffin & Mitchell, 2010; Schneider, 2017, Swart & Otremba, 2016). Technology trials were also found in the results of interviews with managers and senior staff. They deploy and try new technology or new techniques that can improve delivery, reduce cost, safe time, and increase productivity. This was maintained in literature that technology trials should focus on reducing cost through operational excellence, and finding better ways to extract (Swart & Otremba, 2016).

Additionally, collaboration with stakeholders in projects of innovation was considered by managers and senior staff as a critical impact on innovation success. Stakeholders' involvement in PDO was described as important practice. Customers, suppliers, contractors, and other external service providers were reported to be closely involved in PDO's innovative initiatives to align all the targets and to implement innovation together as a team. Managers and senior staff also reported the significance of creating ownership with stakeholders by engaging them first to understand the core business of PDO, then to link innovation projects to the core business targets. Evensen *et al.*, (2020) found that 71% of the research sample (350 executives in 25 countries) in oil and gas companies, indicated that they engaged new partners outside traditional boundaries to foster innovation.

Furthermore, findings of interviews with managers and senior staff stressed the importance of process improvement practice in innovation culture. They appreciated the impact of using LEAN techniques called Standard Operating Procedures (SOP) in innovation projects. Such documented procedure enables staff who take over job of others to continue the improvement of innovation from where others have finished. Thus, PDO can link all innovation projects and

future innovation strategies to LEAN. Risk Assessment was also found from data of interviews with managers and senior staff. Calculated risk technique and recovery plan were applied before trying new technology. This is in line with literature, which suggested that it useful to apply a systematic technique Failure Mode and Effect Analysis (FMEA) to assess the risk factors for new products and services (Goffin & Mitchell, 2010).

Data from interviews with managers and senior staff identified two challenges. First are cost considerations: they indicated that PDO operations are onshore business which are more costly than offshore, and the management cannot afford to try the deployment of all expensive new technology. However, the benefit of increasing revenues and reducing cost of current business operations may worth taking the risk of spending on innovation. The second challenge was change resistance: managers and senior staff pointed out that most staff were young graduates, and they have a mind-set thinking that they were not too clever to innovate. One of the respondents felt that change should not be imposed from top management, and innovation should initiate from the staff who should be rewarded for such innovations. Linking innovation strategy to employee development, rewards and recognition is extremely important (Goffin & Mitchell, 2010).

Findings from interviews with trainers of the Leadership Essentials Programme (LE) showed that innovation was partially achieved by getting people psychologically ready for change, and to take calculated risk. Change management was covered at LE Module 4 but not in detail. Trainees were taught how managers react to new ideas, team readiness for change, change cycle, and change resistance. Leadership skills for developing norms and practices of effective innovation culture were not included in LE. It can be argued that innovation culture are shared practices and norms that should exist in the organisation, and cannot be taught if they don't exist. In PDO, there are many good practices that can be embedded in the LE programme, especially topics related to team readiness for change, and this topic can be expanded to team

readiness for innovation. Literature showed that more details about managing innovation team structure can be developed and included in training programmes such as functional teams, cross-functional teams, autonomous teams, and virtual teams. It can also include selecting the right team members, and managing team relationships (Goffin & Mitchell, 2010). If the duration of the LE is extended, other important topics related to innovation management in literature may include strategy approach, organisational governance and collaboration, resources and competencies, and metrics and incentives (Swart & Otremba, 2016).

5.2.2.3 Practical Implications of Innovation Culture to stakeholders

There are many implications for stakeholders in relation to the findings of the quantitative survey and qualitative interviews. PDO's business customers, suppliers, and contractors need to be involved and work closely as a team with the management of PDO to understand the changing markets, and to review the innovation strategy of PDO and to define clear business targets accordingly. These stakeholders should be aware of all current efforts of innovation at PDO, and how can they contribute in improving operational practices, deploying of new technology, employing creative and talent staff, meeting HSE requirements. Other implications for external stakeholders of PDO include sharing expertise with government ministries, public and private sector, the Omani research council, universities, and schools about collaboration in future projects of innovation. Expanding the current PDO's engagement of stakeholders on energy efficiency through new thought (the Leadership PDO Majlis Programme) to include topics for discussion related to challenges of innovation.

Implications related to stakeholders such as Board of Directors, private shareholders, PDO management, and department of HR can include reviewing innovation strategy by using innovation audit and dealing with challenges of innovation related to aligning structure of departments to changing markets, cost considerations, change resistance, and risk and rewards.

Implications related to stakeholders of LE Programme such as Centre of Learning and Development, trainers, trainees and their departments may include embedding topics of management of innovation culture i.e. how to involve staff and customers towards innovative business targets, how to select team of talented staff, how to share knowledge and resources, how to encourage trial of new technology and reward success. Coaches of trainees in their departments should be involved in the practical reflection and follow up and assessment of trainees.

5.2.3 Impact of Leadership Development on Organisational Performance

Discussion related to impact of Leadership Development Programme on Organisational Performance includes summary of findings, discussion of findings, and practical implications to stakeholders.

5.2.3.1 Summary of Organisational Performance Findings

Many definitions of performance were examined in literature. Some studies defined it as achieving organisational objectives and its impact on economy (Whooley, 1996; Dideir, 2002; Bouguignon, 1997), comparison between organisation and objectives (Dideir, 2002), achieving targeted objectives (Bouguignon, 1997), economy effectiveness and efficiency (Whooley, 1996), and relationship between objectives, means, and results (Matie, 2006; Elena-Iuliana and Maria (2016). Literature also distinguished between performance which is outcome, and performance system, which is behaviour and results (Aguinis, 2013). Many indicators and measurements of organisational performance were identified in literature. These include: capacity development (Morton *et al.,* 2003), organisation per index to measure change (DuBois *et al.,* 2019), effectiveness, efficiency, relevance, and sustainability (Pact, 2015).

Most research in literature classified indicators of measurements of organisational performance as tangible financial indicators such as return on assets, return on equity, return

on sales, and company market share (Garcia *et al.,* 2008; Richard *et al.,* 2009; Shaker & Basem, 2010). Other research classified it as both tangible and intangible non-financial indicators including low turnover, customer satisfaction, operational performance, and organisational effectiveness (Stevens, 2008; Hart& Bandury, 1994; Dayer & Reeves, 1995; Kotter & Hekett, 1992; Michael & Chipuza, 2009; and Venkatraman & Ramanujan, 1986).

There were not many studies found in literature especially in the oil and gas industry that measured the impact of leadership development programmes on organisational performance. However, positive impact of training and development on organisational performance was found in the research of the oil and gas industry and other industries (Raza, 2014; Omar & Mahmood, 2020; Adeyi *et al.,* 2018). A similar positive impact of training and development, and leadership support was found on employees' performance (Amos & Natamba 2015; Naji *et al.,* 2020; Tahir *et al.,* 2014)

Organisational performance of PDO can be found in its mission which focuses on developing and producing oil and gas safely, responsibly and profitably for the benefit of Oman's economy and stakeholders. PDO's performance includes achieving and meeting all the tangible and intangible goals and standards set by the Managing Director's such as technical, operational, and financial standards, and staff allocation and their development (PDO, Sustainability Report, 2018).

Quantitative data was collected from experimental and control group staff of PDO to check if Leadership Essentials Programme (LE) have contributed to improve the tangible and intangible indicators of organisational performance by answering the last 6 items of the survey questionnaire (items 20-25). Qualitative data of first type of interviews was collected from managers and senior staff to find out if the current staff development, PDO's practices, and policies have contributed to effective and efficient organisational performance. Collected data

of the second type of interviews from trainers of Leadership Essentials Programme (LE) focused on the contribution of LE to enhance trainees' leadership capabilities in building effective organisational performance.

Results of research hypothesis 3 revealed that there was a significant relationship impact of the Leadership Development Programme (LDP) on contributing to improve tangible and intangible organisational performance at PDO. The mean of experimental group on factor 2 (IC) was 20.64, whereas the mean of the control group was 14.67. Organisational Performance was marginally influenced by the Leadership Development Programme (LDP) as $F(1, 178) = 106.741$, $p < .001$. Thus, research hypothesis 3 was accepted.

Results of interviews with managers and senior staff showed that they have practices linking business to performance targets, and performance review. They identified three levels of business plan, these were: 1) company business plan; 2) department business plan; and 3) individual performance contract. Managers and senior staff also indicated that the PDO's performance targets focused on two main goals: 1) no harm to HSE, business and assets; and 2) achieving business production targets. Furthermore, they identified three techniques that they use at PDO to review and enhance performance: 1) function capability review; 2) personal performance review; and Performance Improvement Plan (PIP).

Results of interviews with managers and senior staff also showed impact of diversity and inclusion on innovation and organisational performance. It also showed three challenges of diversity and inclusion and its impact on organisational performance. These challenges were: 1) gender issues; 2) consulting and support; and 3) the Omanisation transition.

The main findings from interviews with trainers of Leadership Essentials Programme (LE) showed that no topics were covered at LE related to enhancing tangible resources of organisational performance such as asset utilisation, expanding new products, markets, and

partners, enchaining profitability, reducing cost. However, topics related to intangible resources were covered at other training programmes. For example, eliminating defects and improving quality were covered by LEAN programme, and enhancing competitive advantages in health, safety, environment and community investment might be covered by other training programmes. Yet, interviews with trainers indicated that in LE2, the topic of how to give and receive feedback was covered, which was considered by trainers as relevant and useful knowledge for how leaders should conduct an end of year performance review.

5.2.3.2 Evaluation of Organisational Performance Findings

There are not many studies in literature that support the result of the third hypotheses of a positive significant impact of the leadership development programme on organisational performance. However, there is more research about the impact of training and development on organisational performance or on employee performance. The finding of the research hypothesis3 was in line with Raza (2014) who surveyed 136 middle and top oil and gas industry management staff in Pakistan and found that Training and Development (T&D) have a significant impact on organisational performance. Also, same positive relationship between T&D and organisational performance was found in the study of Omar and Mahmood (2020) on 219 employees in courier service organisations in Malaysia. Findings of the questionnaire in this study were also in line with the research of Adeyi *et al.*, 2018) who found that T&D have resulted in an increase of organisational performance. Other research found evidence about the impact of T&D on employee performance (Amos & Natamba 2015; Naji *et al.*, 2020; Tahir *et al.*, 2014).

The variance of means between the experimental group and control group might be because the former had more training and development from other programmes in tangible and intangible resources development due to their longer experience in PDO. Demographic data of

both groups showed also that some of the respondents in the experimental group were PhD holders and were more qualified than the control group. Thus, such large difference in mean of experimental group could be attributed to greater accumulation of knowledge, training from other programmes, and longer experience and not necessarily to the Leadership Essentials Programme because developing financial competencies was not targeted in the LE according to interviews with trainers. Means of Organisational Performance for both groups were lower than their means in Transformational Leadership and marginally lower than their means in Innovation Culture. Lack of training and development of managers' commercial skills at PDO was in line with Alshaidhani (2017) which showed that PDO's managers lacked developing competence in dealing with increasing technical and commercial challenges in the oil and gas industry. Research suggested that leadership development programmes at PDO should introduce the multiple career ladders model to enable them to develop technical and commercial competencies to enhance tangible and intangible targets of organisational performance (Alshaidhani, 2017).

Interviews with managers and senior staff indicated that they have identified three levels of business plan. The first level was company business plan, which focuses on growing and meeting economic expectations, continuous improvement in HSE and operations quality, and driving growth in production and reserves. The second level was department business plan, in which each department has its own business plan and annual targets, and each unit of the department has its own business plan, and its own key performance indicators (KPI) that are linked at the employee level, unit level, department level, and company level. Department performance is measured by its contribution to the company business plan. The third level mentioned by managers and senior staff was individual performance contact, which is an agreement between the employee and the company that includes the individual staff targeted contribution to unit, department, and company in elements of operations, HSE, and personal

development. These three planning levels of PDO's business plan were in line with EY Report (2015) objectives of operational excellence of oil and gas companies. It is essential to include planning competencies in future LE programme in order to train leaders how to coach their employees to use planning tools and key performance metrics that align targets of operation, HSE, and personal development to the levels of individual, department, and the company's business plans.

Managers and senior staff at PDO also identified three practices that they use to review and enhance performance. First, function capability review, in which for example, the Centre of Training and Development assess the capability of every function at PDO to identify gaps, challenges, and training needs on a departmental level. Second, a personal performance review, which allows each employee to discuss and review his own targets with his supervisor every 3 or 6 months, and then set new targets for the next six months of the year. Third, the performance improvement plan, which enables employees, who are below average in their performance rating to get support and advice to improve their performance. The LE programme did not include knowledge, skills, and attributes of how to do the function capability review, personal performance review, and performance improvement plan, yet, developing leaders' competencies in these practices were considered important in literature. The function capability review is in line with the involvement of line managers in identifying training needs (Raza, 2004) and no harm to HSE, and utilisation of asset management and partners is in line with the findings of (Nouara, 2015).

Results of interviews with managers and senior staff revealed that they viewed the purpose of diversity and inclusion at PDO as including diverse staff towards common goal. Managers and senior staff emphasised that their role as leaders was to avoid discrimination among staff. Findings also showed that diversity of different staff and contractors have positive impact on innovation and performance. As a team leader puts it "*Diversity of contractors from many*

national and international companies is good for applying new products and ideas that have efficient impact on production and quality". He adds *"Having people from different countries, cultures, and backgrounds is positive and we learn from them". (5)*

Interviews with managers and senior staff also revealed gender inclusion could be a challenge for leaders and they need to consider cultural differences carefully in dealing with it and to avoid accusations of discrimination or harassment. As a manager state: *One of the challenges that you try to include but you might be perceived the opposite, and if you try to be safe, you will perceived the other way. So you will be seen as discriminating against or you are getting too close which may be viewed as harassment. There are many cases in the company where different actions were perceived in a different way from different people". (3)* Dealing with challenges of diversity and inclusion and it impact on performance can be met with more training of leaders and more staff awareness, and consultations from a first line support staff in each department, who is the focal point.

PDO's Sustainability Report (2018) considers people as main asset, and the company attracts talent, empowers female staff, and extends Omanisation (employing Omani Nationals). Promoting young Omani staff for leadership positions to take over jobs of expatriate staff may have positive or negative impact on organisational performance as results of interviews and senior staff showed. An expatriate manager argued that there should be a gradual plan of Omanisation in management at PDO and certain ratio and representation of diverse staff should be ensured to take advantage of diversity. Too fast a transition is not healthy, as he puts it: *"In PDO, in this period of transition, there is a big wave coming through now, in the last three years I have been working here, I have seen lots of experienced expatriates are leaving, and there have been replaced with talented young smart Omanis leaders who I think need more support and development" (1).*

However, an Omani coach had a different view, he stated: *"Having people from different countries, cultures, and backgrounds is positive and we learn from them, but on the other hand, we have to develop our own national staff and we cannot rely on expat forever. Those expats also learn from their experience at PDO. Omanisation should be a priority at PDO, because our national Omani staff can be as competitive as other expats if they are given the required training and experience. Similarly, those expert expats have started from scratch at the beginning of their career" (5).* PDO's top management needs to check the impact of the Omanisation process on all tangible and intangible corporate goals and make gradual or quick transitions accordingly. Literature showed that lack of diversity of culture poses more risk to organisational performance in the oil and gas industry (Abubakar *et al.*, 2016). PDO is flexible and responsive in its Omanisation policy and its uses approaches of 'early identification' and 'wait and see' to build managers' capability (Al-Shidhani, 2017).

Findings from interviews with trainers of Leadership Essentials Programme (LE) about Diversity and Inclusion (D&I) showed that it is discussed and included in LE3 Communication Skills. Trainers mentioned that trainees were taught about examples of managers who treat people but on microscopic level, microscopic acts of disrespect which sometimes might be hidden or may be because managers have made unconscious judgement of discriminative or unfair acts towards certain people.

5.2.3.3 Practical Implications of Organisational Performance for Stakeholders

There are many implications for stakeholders in relation to findings of the quantitative survey and qualitative interviews related to organisational performance. Stakeholders include the Board of Directors, private shareholders, PDO management, customers, suppliers, and contractors and community. Stakeholders who have interest in PDO's performance also include the HR department, trainees' departments, the Centre of Learning and Development, and

trainers. The Board of Directors and private shareholders need to make sure that leaders and managers have the required leadership skills and competencies to enhance PDO's organisational performance as stated in the mission of PDO. In other words, they need to find out if the LE programme develops leadership skills of managers to help their employees develop and produce oil and gas safely, responsibly, and profitably. Thus, the Board of Directors and private shareholders need to make sure that managers and their employees are increasing existing assets utilization. Customers, suppliers, and contractors also need to know how to contribute to achieve the targets of the mission and to improve the quality of their service. Customers, suppliers, and contractors need to know how to expand new products, markets, and if there are other partners. Customers, suppliers, and contractors are interested in enhancing the profitability of PDO and their companies. The management of PDO needs to make sure that PDO managers and staff have developed the required leadership skills to reduce cost, eliminate defects, and improve quality effectively and efficiently.

The department of HR needs to make sure that the LE programme is developing leadership skills that lead to enhanced talent development, career opportunities addressing employee retention and achieving the required target of Omanisation, while simultaneously taking into account the required numbers of expatriate to ensure diversity. HR also needs to make sure that the LE has an impact on improving diversity and inclusion and minimizing complaints about discrimination and harassment. HR may conduct ROI on LE to assess its impact on enhancing tangible and intangible resources. PDO may provide expertise of training in organisational performance and diversity and inclusion for public and private institutions in Oman.

As for the LE programme, trainee departments, the Centre of Learning and Development, and trainers need to work closely to identify department training needs, especially about how to link an individual business plan to a department business plan and to the company business plan. The Centre of Learning and Development should review all other training programmes

provided at PDO to make sure if these programmes develop and cover all financial leadership skills required for enhancing organisational performance and try to include the missing competencies in the LE. These skills could include financial competencies such as increasing existing assets utilization, expanding new (products, markets and partners), and enhancing profitability of existing customers or non-financial competencies such as reducing cost expenses & eliminating defects & improving quality, Enhancing competitive advantages in health, safety, environment and community investment, and enhancing employee retention. It could also include how to do personal performance review, and how to do performance improvement plan. Trainers, trainees, and coaches of trainees need to make sure that practical reflection, and follow up support is provided and trainees should select real projects. Trainers and coaches need be both involved in formal assessment of trainees work.

5.3 Chapter Summary

This chapter discussed the analysis and evaluation of the findings of the quantitative survey questionnaire distributed to trainees of the LE programme, and qualitative interviews with managers and senior staff at PDO, trainers of the LE programme. The results of the questionnaire showed that the leadership development programme had a significant impact on transformational leadership, and marginal impact on innovation culture, and organisational performance, thus, all three hypotheses of this study were accepted. There was not much research found in literature about the impact of leadership developments programmes on transformational leadership, innovation culture, and organisational performance. However, results of this study were in line some literature about impact of training and development on transformational leadership, innovation culture, and organisational performance.

Interviews with managers and senior staff and with trainers revealed many challenges related to transformational leadership, innovation culture, diversity and inclusion, and organisational

performance, and related to the delivery and implementation of the LE programme. It is assumed that research objectives have been achieved, contributions of this study and recommendations will be discussed in the next and final chapter.

Chapter Six

Conclusion, Contributions and Recommendations

6.1 Introduction

This chapter presents an overview of the research process, and how each objective of the study was achieved. It also provides a contribution to theory and practice. Subsequently, appropriate recommendations for management of PDO to improve its Leadership Development Programme, and to enhance Organisational Performance are listed. Then, limitations of research are discussed, and scope for further research are suggested.

6.2 Summary of the Research

This study measured the impact of the Leadership Development Programme on Transformational Leadership, Innovation Culture, and Organisational Performance at PDO, an oil and gas Company in Oman. Leadership Essentials Programme (LE) provides leadership development to senior staff and potential managers, and it has been running for more than 20 years at PDO. The LE Programme used to be accredited by the Institute of Leadership and Management (ILM) in UK, but not anymore, and despite the increasing number of LE's graduates, and the continuous changes that were carried out to the programme's syllabus, and type of trainees, no research was conducted to identify the challenges, and to evaluate the effectiveness of the LE programme. The scope of PDO business from shareholder investment to delivery of oil and gas requires deployment of new technology and continuous innovative improvement of many operations. These operations include: 1) exploring oil and gas opportunities; 2) creating and evaluating oil and gas exploration; 3) developing abandoned wells and facilities; 4) operating wells and facilities; 5) maintaining wells and facilities; and 6) transporting, storing, and delivering products (PDO, Sustainability Report, 2018). Thus, this

study assumed that the leadership development programme at PDO has an impact on the trainees to develop effective transformational leadership skills, and on contributing to build strong innovation culture, and on enhancing all tangible and intangible resources of organisational performance. Thus, to measure the impact of the Leadership Development Programme on Transformational Leadership, Innovation Culture, and Organisational Performance at PDO, three research objectives were created. First, definitions and concepts of leadership, leader development, leadership development, and models and approaches of leadership development programmes were discussed. Second, definitions and models of transformational leadership, innovation culture, and organisational performance were compared, and studies in literature about the impact of leadership development on transformational leadership, innovation culture, and organisational performance were reviewed. Also, the context of PDO and its code of conduct, leadership framework, scope of business, staff development, and some projects of new technology were presented in the literature review.

Having reviewed the literature, the survey questionnaire and two types of interviews were designed, and checked by academic experts in human resources at Sultan Qaboos University in Oman. A modified and final version of questionnaire and interviews were targeted to achieve the second and third objectives of the study. A pilot study was carried out to measure the validity and reliability of the questionnaire. Two main statistical measurements were used to check validity construct of the questionnaire. The first was Exploratory Factor Analysis (EFA) using pattern matrix, and the second was Confirmatory Factor Analysis (CFA) using 3 model fit indexes: a) Root Mean Square Residual (RMR), b) Comparative Fit Index (CFI), and c) Root Mean Square Error of Approximation (RMSEA).

Results of EFA had some limitations that it was difficult to control the loadings of the respective factors, and Pattern Matrix techniques showed only 2 rotation factors instead of 3

factors. Yet, the component correlation matrix was .685 which was good validity fit. In addition, results of CFA and all of the loadings were significant ($p < .001$) indicating that each item measured its factor validly. The correlations among the three factors, Factor 1 (Transformational Leadership), and Factor 2 (Innovation Culture) were related significantly ($r = .71$). Similarly, Factor 2 (Innovation Culture) and Factor 3 (Organisational Performance) were related significantly ($r = .70$). However, Factor 1 (TL) and Factor 3 (OP) were related but marginally ($r = .13$).

Quantitative data needed for this research was collected from a survey questionnaire conducted on 180 PDO staff divided into 104 respondents from an experimental group, who completed the Leadership Essentials Programme at PDO, and 76 respondents from the control group who did not commence the programme. The collected data was inputted into SPSS software to generate information which helped to examine three hypothesis related to the impact of Leadership Development Programme on Transformational Leadership, Innovation Culture, and Organisational Performance. Multivariate ANOVA analysis was used to test the three research hypotheses, and findings of variance between the experimental group and control group showed a significant impact of the Leadership Development Programme on Transformational Leadership, Innovation Culture, and Organisational Performance. Thus, all three research hypotheses were accepted.

Template analysis was used to analyse data from two types of interviews: first type with 10 managers and senior staff at PDO, and second type of interviews with two and only trainers of LE Programme. Four themes were identified from interviews with both types of interviews. Themes of managers and seniors staff interviews template were: 1) perspectives of Transformational Leadership; 2) perspectives of Innovation Culture; 3) perspectives of Diversity and Inclusion; and 4) perspectives of Organisational Performance. Themes of the trainer interview template was 1) design of LE Programme; 2) delivery of modules; 3)

assessment and evaluation; and 4) suggested changes for the future LE Programme. Although findings from quantitative survey questionnaire revealed significant impact of Leadership Development Programme on Transformational Leadership, Innovation Culture, and Organisational Performance, results of interviews with trainers revealed that only some topics related to Transformational Leadership were covered in LE Programme, but very little was taught about Innovation Culture and Organisational Performance. In addition, some respondents to the questionnaire felt that the items of the questionnaire were not relevant to their job because they were not in a leadership position yet. Thus there were some limitations about findings of the questionnaire. Furthermore, not many studies in literature found significant impact of Leadership Development Programmes on Transformational Leadership, Innovation Culture, and Organisational Performance. However, there were some research in literature that examined training and development on employees' performance. Also, more research was found in literature about the impact of Transformational Leadership on Performance, Transformational Leadership on Innovation Culture, and Innovation Culture on Performance. Thus, findings of this study adds to theoretical contribution of knowledge.

6.3 Achieving Research Objectives

There were three research objectives in this research, and different methods and approaches were applied to achieve each objective.

6.3.1 Summarizing studies related to the impact of the Leadership Development Programme on Transformational Leadership, on Innovation Culture and on Organisational Performance

This objective was set to understand the concepts of leadership in general, and the difference between leader development and leadership development. Models and approaches of leadership development, transformational leadership, innovation culture, and organisational performance were examined in the literature review. Subsequently, research about the impact

of Leadership Development, on Transformational Leadership, Innovation Culture, and Organisational Performance was explored and examined in the literature review. This objective covered review of research about this topic in all industries in general, and in oil and gas industry in particular. Investigating the context of PDO, as part of the literature was essential to understand the current policies, practices, projects, and staff development priorities of the company to enhance PDO's performance. Examining the literature review was helpful in the design of survey questionnaire of this study by comparing various instruments to measure Leadership Development Programmes, Transformational Leadership, Innovation Culture, and Organisational Performance at PDO. Consequently, the literature review contributed to the design of the survey which consisted of 13 items to measure the impact of the Leadership Development Programme on Transformational Leadership based on The Multifactor Leadership Questionnaire (Bass and Avolio, 1994), 6 items to measure the impact of the Leadership Development Programme on Innovation Culture (Beswick *et al.,* 2016; Degraff and Quinn, 2007; Goffin and Mitchell; 2010, and Schneider, 2017); and 6 items to measure the impact of the Leadership Development Programme on Organisational Performance (Garcia-Morales *et al.,* 2008). Also, three hypotheses, and a research conceptual model were developed as a result of the literature review.

6.3.2 Evaluating the impact of Leadership Development Programme on developing Transformational Leadership, on building Innovation Culture, and on enhancing Organisational Performance

This objective was achieved by conducting the survey questionnaire to test the three research hypotheses, and by comparing the findings of the questionnaire to the literature review. Firstly, to measure the impact of Leadership Development Programme on Transformational Leadership, results of experimental group and control group on the first 13 items of the questionnaire were examined and compared. Findings indicated significant impact of

Leadership Development Programme on Transformational Leadership, and research hypothesis 1 was accepted. Furthermore, findings from interviews with managers and senior staff indicated that collective Transformational Leadership was practiced by to enhance staff morale and to improve effective practices of staff development. They also emphasized that as transformational leaders they made sure that collective team-work performed in accordance with PDO's leadership framework and the job's attributes (engage, respect, collaborate, and use LEAN to improve quality). Findings from interviews with trainers showed that knowledge and skills related to transformational Leadership were covered in modules of LE Programme. Findings were supported by in literature (Fin, 2007; Al-Shamsi *et al.,* 2015). However, more studies found in literature measured the impact of training and development of employees on Transformational leadership, and other research measured the impact of transformational leadership on employees' performance.

Secondly, to measure the impact of the Leadership Development Programme on Innovation Culture, results of the experimental group and control group on 6 items of the questionnaire were examined and compared. Findings of the survey questionnaire showed a significant impact of the Leadership Development Programme on Innovation Culture, and the second research hypothesis was accepted. A review of the literature examined best practices for achieving a culture of innovation, and practical framework for placing innovation at the core of business. Findings agreed with literature, which found a positive relationship between training and innovation, and between training and technology, and capability of innovation. However, most studies of literature focused on the positive impact of innovation capabilities and innovation culture on organisational performance. Although innovation culture was not included in Modules of LE Programme according to findings of interviews with trainers, most findings of interviews with managers and senior staff agreed with literature about some existing practices of innovation at PDO such as sharing knowledge and resources, deployment of new

technology, sharing good practice, enhancing involvement of stakeholders (customers, suppliers, and contractors). However, findings of interviews with managers and senior staff identified some challenges of innovation related to onshore cost considerations and change resistance.

Thirdly, to measure the impact of the Leadership Development Programme on Organisational Performance, results of the experimental group and control group on the last 6 items of the questionnaire were examined and compared. Findings of survey questionnaire showed significant impact of the Leadership Development Programme on Organisational Performance, and the third research hypothesis was accepted. There were not many studies found in literature especially in the oil and gas industry that measured the impact of leadership development programmes on organisational performance. However, positive impact of training and development on organisational performance was found in research of oil and gas industry and other industries. Also, the literature review revealed positive impact of training and development, and leadership support on employees' performance. Findings of interviews with managers and senior staff identified three levels of business plan at PDO, these were: 1) company business plan; 2) department business plan; and 3) individual performance contract. Findings of interviews with manager and senior staff agreed with literature about PDO's performance targets that focused on two goals: 1) no harm to HSE, business and assets; and 2) achieving business production targets. Also, findings of interviews showed three practices were used at PDO to review and enhance performance: 1) function capability review; 2) personal performance review; and Performance Improvement Plan. Findings also showed challenges related to the impact of diversity and inclusion on innovation and organisational performance, such as gender issues, consultation and support, and the Omanisation transition process. Findings of interviews with trainers of LE showed LE module 2 included materials about how to give and receive feedback for performance review. Findings of research were supported by

literature which found significant impact of training and development on organisational performance. However, more evidence was found in literature about the significant impact of training and development on employee performance.

6.3.3 Recommending a framework to develop and implement change management strategies for revising the Leadership Development Programme with a view to enhance Organisational Performance at PDO

Interviews with the only two trainers of the LE Programme at PDO were conducted to achieve this objective. Findings of interviews presented details about the design and content of LE the four modules, which covered more topics related to transformational leadership but very little was mentioned about innovation culture and organisational performance.

Findings of interviews with trainers revealed many challenges related to the implementation of the LE Programme. These challenges were lack of involving departments and trainees in identifying training, limited duration for face to face classes for each module (3 days), and no formal assessment of students due to shortage of trainers, lack of follow-up coaching and feedback, and lack of extra learning resources. After comparing findings with literature, a recommended framework to develop and implement change management strategies for revising the LE Programme with view to overcome challenges and to enhance organisational performance. Details of recommendations for the revised LE Programme are presented in practical research contribution in this chapter.

6.4 Research Contributions

This research consists of two research contributions: 1) theoretical contribution, and 2) practical contribution.

6.4.1 Theoretical Contribution

Previous research in literature focused on the impact of Transformational Leadership on Innovation, and the impact of Transformational Leadership on employee performance. There were no studies in literature that measured the impact of Leadership Development Programmes on Transformational Leadership, especially in the oil and gas industry. Also, this was the first study that examined the impact of Leadership Development Programme on the Transformational Leadership in the oil and gas industry in Oman. Also, literature focused on the impact of innovation and creativity on employees' performance, and the impact of innovation and creativity on Transformational Leadership, and the impact of training and development on employee performance. However, no research was found in literature that examined the impact of Leadership Development Programmes on Innovation Culture, especially in oil and gas industry. Therefore, findings of this study contributes to theory about the impact of Leadership Development Programmes on Innovation Culture in oil and gas industry. Similarly, most research in literature examined the impact of Training and development on employees' performance not organisational performance. This research measured the impact of the Leadership Development Programmes on Organisational Performance in the oil and gas industry. It is also the first study to measure this impact on the oil and gas industry in Oman.

6.4.2 Practical Contribution

The results of the study provide a framework to develop and implement change management strategies for revising the Leadership Development Programme with view to enhance Organisational Performance at PDO. Based on findings of questionnaire and interviews, many challenges related to the implementation of Leadership Essentials Programme (LE) were identified. To overcome these challenges, this study proposes four stages of the conceptual

framework as shown in Figure 6.1. The first stage of the cycle conceptual framework is identifying the challenges of the current LE programme at PDO. These challenges include: 1) relying on face to face training only; 2) lack of identifying training needs; 3) limited time of training duration; and 4) lack of formal assessment of trainees. The second stage is suggested design and vision, that leadership development should: 1) refocus on knowledge, skills, and attributes (KSA); 2) leverage high engagement of stakeholders; and 3) provide formal assessment. The third stage is suggested delivery changes, which consists of some learning models and approaches mentioned in discussion. These include: 1)conducting pre and post 360-degree feedback to identify training needs, and to measure impact of training effectiveness; 2)applying 4MAT learning model; 3)applying 70:20:10 training delivery approach; and 4) providing coaching and follow-up support. The last and fourth stage are the required resources for implementation which should consider: 1) extending duration (three days were not enough for each module); 2) increase number of trainers (two trainers were not sufficient); 3) provide extra learning resource; and 4) seek external quality assurance for continuous improvement.

The findings of this study and the suggested framework for revising leadership development programmes may help other oil and gas companies who have interest in improving leadership development programmes. Furthermore, the results of this research may stimulate training specialists and academic researchers to pursue and explore further issues related to the impact of leadership development programmes on the growth of transformational leadership, promoting and building innovation culture and enhancing organisational performance.

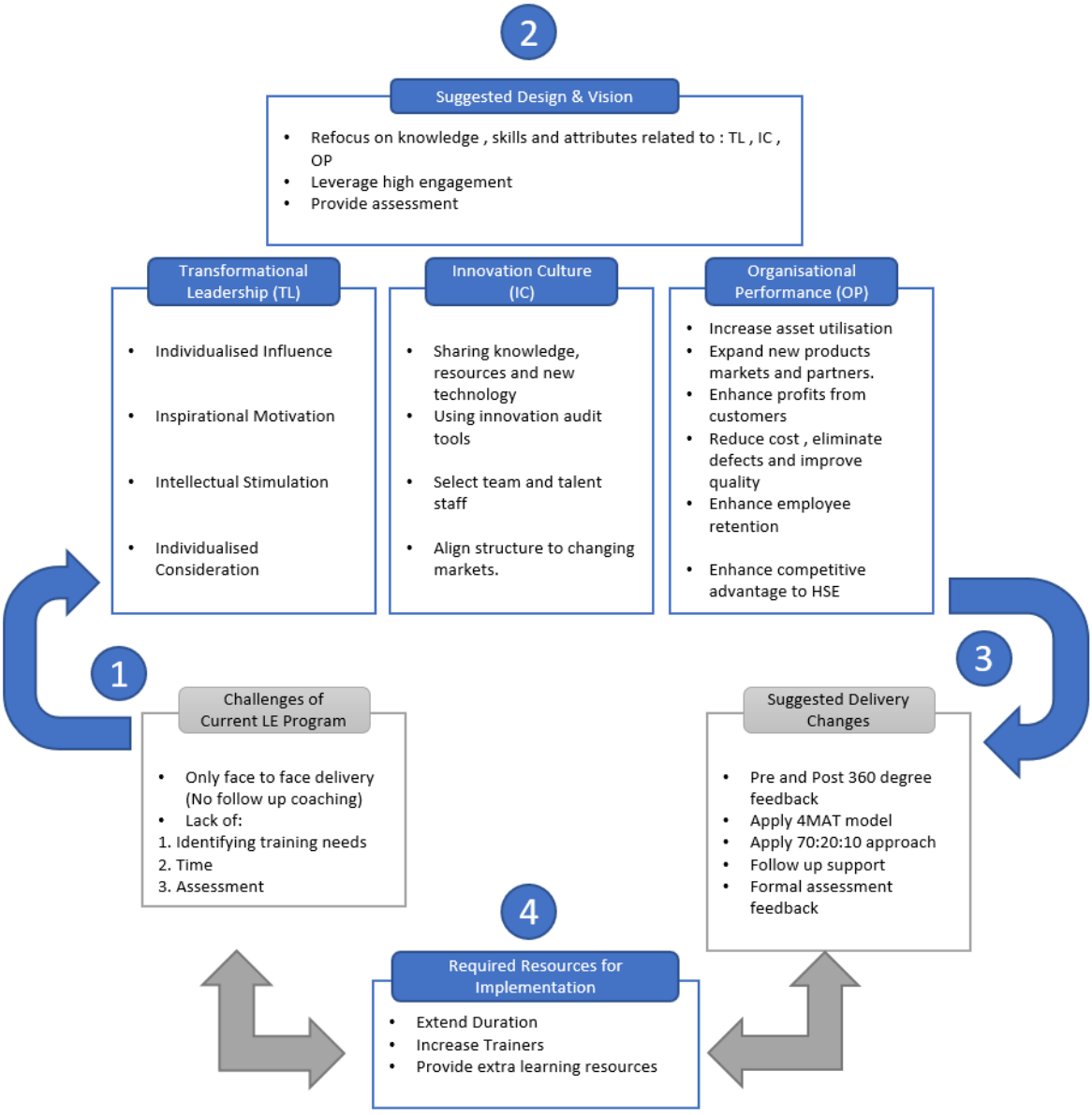

Figure 6.1 Conceptual Framework of Suggested Changes for LE programmes (Source: The Author)

6.5 Research Recommendations

Recommendations of this research were based on the literature review, findings from survey questionnaire and interviews, and discussions of findings. To improve the impact of Leadership Development Programme on Transformational Leadership, Innovation Culture, and Organisational Performance at PDO, and to revise the Leadership Development Programme with view to enhance Organisational Performance at PDO, and based on (Gurdijan *et al.,* 2014) investigation in literature, why leadership development programmes fail, the following recommendations were suggested:

6.5.1 Stakeholders Involvement in Review, Refocus of Training Needs to PDO Context

Review Leadership Essentials Programme (LE) modules and refocus on Knowledge, Skills, and Attributes (KSA) to improve Transformational Leadership, Innovation Culture, and Organisational Performance as suggested in the framework of the practical contributions. Thus, review of KSA should avoid long list of topics and need to match two or three specific leadership skills and attributes to PDO context. Engage and involve all stakeholders in identifying training needs. Trainees could use pre- and post-training 360-degree feedback instruments. Pre training is used to identify training needs and current knowledge, skills, and attributes (KSA) of trainees, while post training can be used as feedback to measure impact of LE Programme on change of trainees' behaviour, culture change, and KSA.

6.5.2 Reflection and Follow-up Support

Apply 70:20:10 development model of delivery (70% on the job training and development; 20% through coaching and mentoring; 10% only delivery through face to face classes). Provide follow up coaching and support using the 4MAT Learning Model of cognitive thinking process, experiential learning and reflection. Trainees' reflections should be developed to include how to connect, reflect, image, conceptualize, practice, extend, refine, and integrate.

6.5.3 Measurements and Feedback

Apply formal assessment and provide feedback to trainees. Also, use some useful techniques such as 360-degree feedback to compare and measure the impact of training before and after the programme. Monitor and track the graduates' career development after training, and to get more feedback from them to improve the programme.

6.5.4 Investigate Change Barriers

Top management at PDO need to investigate barriers to behaviour change such as beliefs, assumptions, feelings, and lack of management support that cause resistance of behaviour change. PDO should train coaches and mentors to support the trainees to implement the reflective learning activities in practice. Coaches and mentors should also be involved in helping the trainees to deeply reflect and critically evaluate their own beliefs and values. Peer-learning groups and applying 360-degree feedback can help the trainees to reflect more deeply. Learning reflection activities should be linked with regular practice and processes such as performance and business review. Senior role models leaders who actively use reflection can share their experience with the trainees about the benefit of reflective learning. Training and development support can be built in the LDP through mentors, line managers, HR specialists and peer learning.

6.6 Limitations of the Research

Limitations of this research were related to research samples and to generalisation of the study.

6.6.1 Research Sample

Out of 500 PDO employees' targeted and approached research sample for the survey questionnaire, only 180 staff from both experimental and control groups replied despite frequent reminders. Some comments from both groups indicated that they were not in

leadership positions, and they felt that the items of the questionnaire were not relevant to them and it should have been directed to top management and senior staff who have longer experience. Also, out of 180 respondents to the survey questionnaire, there were only 5 non-Omanis staff (3%), which was very limited percentage to represent views related to cultural differences.

Furthermore, out of 20 managers and senior staff, who were approached for interviews, only 10 were willing to attend the interview. However, only several of them had attended the LE Programme, and they did not have enough information about the LE Programme. Thus, the questions of interview with managers and senior staff focused on delivery of Transformational Leadership, Innovation Culture, and Organisational Performance, but not on Leadership Development Programme. Only one female senior staff out of 10 managers and senior staff participated in interviews. Also, this research did not include trainees in interviews, who could have added valuable contributions to the research.

6.6.2 Generalisability

This research has been conducted on LE Programme at PDO, the findings and recommendations of this this research cannot be generalised and applied to other training programmes at PDO. Although there is a possibility of generalisability of some research findings and recommendations with other firms who have similar Leadership Development Programmes in oil and gas industry, it cannot be generalised and applied to other oil and gas companies in Oman or globally who have different Leadership Development Programmes.

6.7 Scope for further research

The findings of this study are based on the Leadership Essentials Programme at PDO in Oman. Further studies in other oil and gas companies or other industries in Oman or other countries can offer further insights into the impact of Leadership Development Programmes on

Transformational Leadership, Innovation Culture, and Organisational Performance. Further studies could compare between the performances of current graduates of LE Programme at PDO to the performance of future graduates from the suggested improved LE programme. Also, further studies may measure the impact of LE Programme on changing managers' behaviour and performance from the perspectives of stakeholders. Due to the consequences of COVID19 epidemic, further studies may compare the effectiveness of changing delivery of future Leadership Development Programmes from virtual face to face classes to digital e-learning programmes.

References

Abubakar, M., Ahmad, S., Kaoje, N. and Abdulazeez, M. (2016). Performance Measurement and Management in the Upstream Oil and Gas Sector. *IOSR Journal of Business and Management*, 18(08), 26-33.

Abudaqa, A., Faiz, M., Dahalan, N. and Almujaini, H. (2020). The Role of Leadership Styles in Encouraging and Improving Team Performance in One of the Biggest Oil & Gas Group of Companies in Abu Dhabi, UAE. *International Journal of Economics, Business and Accounting Research (IJEBAR)*, 4(02), 75-87.

Adeyi, A., Apansile, E., Okere, W. and Okafor, L. (2018). Training and Development and Organisational Performance: Standpoint from Private Tertiary Institutions in Nigeria. *Journal of Economics, Management and Trade*, 21(12), 1-10.

Aguinis, H. (2013). *Performance Management.* Upper Saddle River, NJ: Pearson Prentice Hall.

Ahangar, R. and Rooshan, A. (2009). Building managers as transformational leaders in public sector banks. *International Review of Business Research Papers*, 5(5), 355-364.

Akinwale, O. (2018). Empirical analysis of Inbound open innovation and small and medium sized enterprises' performance: Evidence from oil and gas industry. South African *Journal of Economic and Management Sciences*, 21(1), 1-9.

AlBusaidi, I. (2020). *Leadership Styles, Organisational Politics and Employees' Performance: The Perspectives of Leaders and Employees from the Oil and Gas Industry in Oman*, A thesis submitted in partial fulfilment of the requirements for the Degree of Doctor of Philosophy University of Salford, Salford Business School.

AlDhanhani, A. and Abdullah, N. (2020). The Impacts of Organizational Culture and Transformational Leadership Style on The Employee's Job Performance: A Case Study at UAE's Petrochemical Company. *Journal of Human Resources Management Research*, 2020, pp.1-16. DOI: 10.5171/2020.379522

Aldulaimi, S. (2018). Leadership development program and leaders performance for mid-level managers in Saudi Petroleum Company, ARAMCO. *Arab Economic and Business Journal*, 13(1), 15-24.

Al-Husseini, S., & Elbeltagi, I. (2014): Transformational leadership and innovation: a comparison study between Iraq's public and private higher education, *Studies in Higher Education*, DOI: 10.1080/03075079.2014.927848

Ali, Y., Lewis, N., & Kimberly, C. M. (2010). Case study: Building an internal coaching capacity - the American Cancer Society coach cadre model. *Industrial and Commercial Training, 42*(5), 240-246.

Alkhaja, B., & Miniano, C. (2019). The impact of Transformational leadership on the organizational innovation. *European Journal of Business and Management* 11(26), 133-145. DOI: 10.7176/EJBM

Al-Mansoori, R. & Koç, M. (2019). Transformational Leadership, Systems, and Intrinsic Motivation Impacts on Innovation in Higher Education Institutes: Faculty Perspectives in Engineering Colleges. *Sustainability*. 11(15), 4072; DOI: 10.3390/su11154072

Al-Mughairi, A. (2018). *The evaluation of training and development of employees: The case of a national oil and gas industry*, PhD thesis, Brunel Business School, Brunel University.

Alshaidhani, S. (2017). *Developing capacity building through professional development and career options: Insights from the petroleum profession*. DBA thesis, University of Liverpool.

Al Shamsi, S., Dixon, C., Hossan, C., and Papanastassiou, M. (2015). Coaching constructs and leadership development at an oil and gas company in the United Arab Emirates. *JCS*, 23(1&2), 13-33.

Alzawahreh, A. A. S. (2011). Transformational leadership of superiors and creativity level among faculty members in Jordanian Universities. *Journal of Institutional Research South East Asia*, 9(1), 125–132.

Amos, K. & Natamba, B. (2015). The Impact of Training and Development on Job Performance in Ugandan Banking Sector. *RISUS - Journal on Innovation and Sustainability*, 6(2) 65-71

Antonakis, J. (2012). Transformational and charismatic leadership. In D.V. Day & J. Antonakis (Ed.), *The nature of leadership* (2nd ed., pp.256-288). Thousand Oaks, CA: SAGE.

Atan, J. & Mahmood, N. (2019).The role of transformational leadership style in enhancing employees' competency for organization Performance. *Management Science Letters* (9), 2191–2200. DOI: 10.5267/j.msl.2019.7.033

Australian Institute of Management. (2004). *Training and Development Survey 2004.* Western Australia, Perth.

Avolio, B.J. (1999). *Full leadership development: Building the vital factors in organizations.* Thousand Oaks, CA: SAGE.

Avolio, B. J. (2004). Examining the full range model of leadership: Looking back to transform forward. In D. V. Day, S. J. Zaccaro & S. M. Halpin (Eds.), *Leader development for transforming organizations: Growing leaders for tomorrow* (pp. 71-98). Mahwah, NJ: Erlbaum.

Avolio, B.J. and Kahai, S.S. (2003). Adding the 'E' to e-leadership: how it may impact your leadership, *Organizational Dynamics*, 31(4), 325-338.

Auricchio, P. (2015) *Exploring the Use of a Blended Learning Model in Executive Leadership Development* (unpublished doctoral thesis, University of Pennsylvania Graduate School of Education)

Baggio, R. & Klobas, J. (2011). *Quantitative Methods in Tourism: A Handbook*. Bristol: Channel View Publications.

Barney J.B. (1986). Strategic factor markets: Expectations, luck and business strategy. *Manag Sci*; 32 (10), 1231-41

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120.

Baškarada, S., Watson, J. & Cromarty, J. (2017). Balancing transactional and transformational leadership. *International Journal of Organizational Analysis*, 25(3), 506-515. DOI: 10.1108/IJOA-02-2016-0978

Bass, B. (1985). *Leadership and performance beyond expectations*. 1st ed. New York: Free Press.

Bass, B.M. (1990). *Bass and Stogdill's handbook of leadership: A survey of theory and research*. New York: Free Press

Bass, B.& Avolio, B. (1994). *Improving Organizational Effectiveness Through*

Transformational Leadership, Sage, Thousand Oaks, CA.

Bass, B. and Riggio, R. (2006). *Transformational leadership*. 2nd ed. Mahwah, N.J.: Lawrence Erlbaum Associates.

Beer, M., Finnstrom, M., & Schrader, D. (2016). Why Leadership Training Fails-and What to Do About It. *Harvard Business Review*, October, 50-57.

Beswick, C., Bishop, D. and Geraghty, J. (2016). *Building A Culture Of Innovation*. 1st ed. London: Kogan Page.

Bhaskar, R. (2008). *A Realist Theory of Science.* London: Verso (originally published by Harvester Press1978).

Bhaskar, R. (2011). *Reclaiming Reality: A Critical Introduction to Contemporary Philosophy.* Abingdon: Routledge (originally published by Verso 1989). BMI, Oman Best's Country Risk Tiers, CRT-4, 2018

BMI, Oman Country Risk Report, Q4 2017

Boehnke, K., Bontis, N. Distefano, J., & Distefano, A. (2003). Transformational Leadership: An Examination of Cross-national Differences and Similarities. *Leadership and Organization Development Journal*, 24(1/2), 5-17.

Bolden, R. (2005). "The face of true leadership", *European Business Forum*, 21, 54-57.
Børing, P. (2017). The relationship between training and innovation activities in enterprises. *International Journal of Training and Development*, 21(2), 113-129

Bourguignon A. (1997). Sous les les pavés la plage... ou Les multiples fonctions

du vocabulaire comptable: l'exemple de la performance, *Compabilité-ContrôleAudit*, 3(1) 89-101.

Boyatzis, R. E. (2008). Leadership development from a complexity perspective. *Consulting Psychology Journal: Practice and Research, 60*, 298-313.

Boyce, L. A., Jackson, J. R., & Neal, L. J. (2010). Building successful leadership coaching relationships examining impact of matching criteria in a leadership coaching program. *Journal of Management Development*, 914-931.

Boyer, N. (2003). "Leaders mentoring leaders: Unveiling role identity in an international

online environment". *Mentoring and Tutoring: Partnership in Learning*, 11(1), 25-42.
Bradley L. K., Chen. G., Kanfer, R., Allen, D., Rosen, B. (2007). "A Multilevel Study of

Leadership, Empowerment, and Performance in Teams". *Journal of Applied Psychology*, American Psychological Association. 92(2), 331–346

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, (3), 77-101.

Brealey, R.A., Myers SC, Marcus AJ (2001). *Fundamentals of Corporate Finance* (3rd ed), New York: McGraw-Hill.

Breevaart, K., Bakker, A. B., Hetland, J., Demerouti, E., Olsen, O. K., & Espevik, R. (2014). Daily transactional and transformational leadership and daily employee engagement. *Journal of Occupational and Organizational Psychology,* 87, 138–157. DOI: 10.1111/joop.12041.

Brooks, J., McCluskey, S., Turley, E. and King, N. (2014). The Utility of Template Analysis in Qualitative Psychology Research. *Qualitative Research in Psychology*, 12(2), 202-222.

Browne, M. W., and Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A.Bollen and J. S. Long (Eds.), *Testing structural equation models* (136−162). Newbury Park, CA: Sage.

Bryman, A. (1992). *Charisma and Leadership in Organizations.* London: SAGE

Burgoyne, J., Hirsh, W. and Williams, S. (2004). "The Development of Management and Leadership Capability and its Contribution to Performance: The evidence, the prospects and the research need". *DFES Research Report 560,* London: DFES.

Burns, J. (1978). *Leadership*. 1st ed. New York: Harper & Row.

Busaibe, L., Singh, S., Ahmad, S. & Gaur, S. (2017). *Gender in Management*, 32 (8), 578-589. DOI: 10.1108/GM-01-2017-0007

Bush, T. & Glover, D. (2004). *Leadership Development: Evidence and beliefs. Summary Report. Spring 2004. A review of the literature carried out for National College for School Leadership*, Lincoln University, National College for School Leadership.

Calás, M. & Smircich, L. (1997). *Postmodern Management Theory*. Aldershot: Ashgate/Dartmouth.

Cameron, K. and Quinn, R. (2006). *Diagnosing and Changing Organizational Culture Based on the Competing Values Framework, Beijing: China Renmin University Press.* 1st ed. San Francisco: Jossey-Bass.

Cameron, K. and Quinn, R. (2011). *Diagnosing and changing organizational culture: Based on the competing values framework. John Wiley and Sons*. 1st ed. San Francisco: Jossey-Bass.

Cameron, K. S., & Whetten, D. A. (1983). Organizational effectiveness: one model or several? In K. S. Cameron & D. A. Whetten (Eds.) *Organizational Effectiveness. A Comparison of Multiple Models.* New York: Academic Press. 1-26.

Campbell, J., Brownas, E., Peterson, N., and Dunnette, M. (1974). *The Measurement of Organizational Effectiveness: A Review of Relevant Research and Opinion.* Minneapolis: Navy Personnel Research and Development Center, Personnel Decisions.

Canals, J., 2012. *Leadership Development In A Global World*. 12th ed. New York: Palgrave Macmillan

Capgemini (2016). Internal paper from the Capgemini University, following discussions with Steven Smith, VP in charge of the Corporate University.

Chappelow, C. T. (2004). 360-Degree Feedback. In C. D. McCauley & E. Van Velsor (eds), *The Center for Creative Leadership handbook of leadership development* (2nd ed., pp. 58–84). San Francisco: Jossey-Bass.

Carton, R. B. & Hofer, C. W. (2006). *Measuring Organizational Performance: Metrics for Entrepreneurship and Strategic Management Research,* Edward Elgar Publishing Limited.

Cerni, T., Curtis, G. & Colmar, S. (2010). Executive coaching can enhance transformational leadership. *International Coaching Psychology Review,* 5 (1), 83-87.

Çimer, A., Çimer, O. S. and Vekli, S. G. (2013). "How does Reflection Help Teachers to

Become Effective Teachers?", *International Journal of Educational Research*, 1(4), 2306-7063.

Cohen, W. M. and D. A. Levinthal (1990). 'Absorptive capacity: a new perspective on learning and innovation', Administrative Science Quarterly, 35,128–152.

Collis, J. and Hussey, R. (2009). *Business Research: A Practical Guide for Undergraduate and Postgraduate Students,* Palgrave Macmillan: New York.

Combs, J.G.T., Crook R., Christopher LS. (2005). The Dimensionality of Organizational Performance and its Implications for Strategic Management Research, in Profess or David Ketchen and Professor Don Bergh (ed.) Research Methodology in Strategy and Management (*Research Methodology in Strategy and Management*, (2), 259-286.

Common, R. (2011). Barriers to Developing Leadership in the Sultanate of Oman, *International Journal of Leadership Studies*, 6(2), 215-228.

Cordón-Pozo, E., Vidal-Salazar, M. & Torre-Ruiz, J. (2017). Innovation training and product innovation performance: the moderating role of external cooperation. *International Journal of Technology Management*, 73(1/2/3), 3-20. DOI: 10.1504/IJTM.2017.082354

Craig, S. B., & Hannum, K. (2006). Research update: 360-degree performance assessment. *Consulting Psychology Practice and Research, 58,* 117–122.

Crotty, M. (1998). *The Foundations of Social Research.* London: Sage.

Damanpour, F., & Gopalakrishnan, S. (2001). The dynamics of the adoption of products and process innovations in organizations. *Journal of Management Studies, 38*, 45-65.

Dappa, K., Bhatti, F. and Aljarah, A. (2019). A study on the effect of transformational leadership on job satisfaction: The role of gender, perceived organizational politics and perceived organizational commitment. *Management Science Letters*, 9, 823–834.

Davila, T., Epstein, M. and Shelton, R. (2013). *Making innovation work*. 1st ed. Upper Saddle River, N.J.: FT Press.

Day, D. (2001). Leadership development: *The Leadership Quarterly*, 11(4), 581-613.

Day, D., Fleenor, J., Atwater, L., Sturm, R. & McKee, R. (2014). Advances in leader and leadership development: A review of 25years of research and theory. *The Leadership Quarterly*, 25(1), 63-82.

De Clercq, D., Thongpapanl, N. and Dimov, D. (2011). The Moderating Role of Organizational Context on the Relationship Between Innovation and Firm Performance. *IEEE Transactions on Engineering Management*, 58(3), 431-444.

DeGraff, J. and Quinn, S. (2007). *Leading innovation*: *How to jump start your organization's growth engine.*1st ed. New York: McGraw-Hill

Del Baldo, M. and Baldarelli, M. (2017). Renewing and improving the business model toward sustainability in theory and practice. *International Journal of Corporate Social Responsibility*, 2(1), 1-13.

Denzin, N. K. and Lincoln, Y. S. (2000). *Handbook of Qualitative Research*, Sage Publications, London.

Droge, C., Calantone, R., & Harmancioglu, N. (2008). New product success: Is it really controllable by managers in highly turbu-lent environments? *Journal of Product Innovation Management*, *25*(3), 272-286.

DuBois, R., Bruce, K., Reeves, M., Vandelanotte, J. & Yakimakho, O. (2019). The Organizational Performance Index: A New Method for Measuring International Civil Society Capacity Development Outcomes. *Performance Improvement Quarterly*, 31(4), 381-396.

Dyer, L.D., & Reeves, T. (1995). Human resource strategies and firm performance: What do we know and where do we need to go? *International Journal of Human Resource Management*, 6(3), 656-670.

Eid, J., Johnsen, B., Bartone, P. and Nissestad, O. A. (2008). "Growing transformational leaders: exploring the role of personality hardiness". *Leadership and Organization Development Journal*, 29(1), 4-23.

Elrehail, H., Emeagwali, O., Alsaad, A. & Alzghoul, A. (2018).The Impact of Transformational and Authentic Leadership on Innovation in Higher Education: The Contingent Role of Knowledge Sharing. *Telematics and Informatics*, 35(1), 55-67. DOI:10.1016/j.tele.2017.09.018

EL Sawy, O. A., Kræmmergaard, P., Amsincket, H., Vinther, A. L. (2016). How LEGO Built the Foundations and Enterprise Capabilities for Digital Leadership. *MIS Quarterly Executive*, June 2016 (15:2), 141-166.

Ergeneli, A., Gohar, R. and Temirbekova, Z. (2007). Transformational leadership: Its relationship to culture value dimensions. *International Journal of Intercultural Relations*, 31(6), 703-724.

Estelle M Morin & Luc K. Audebrand (2014). *Organizational performance and meaning of work: Correcting for restricted range.*

Fernando, N. (2019). Impact of Training and Development on Innovation Capability, *International Journal of Science and Research* (IJSR).

Feser, C, Mayol, F and Srinivasan, R. (2014). Decoding leadership: What really matters, *Mckinsey Quarterly*, 4, 88-91.

Finn, F. A. (2007). *Leadership development through executive coaching: The effects on Leaders' Psychological States and Transformational Leadership Behaviour*. A thesis

submitted in partial fulfilment of the requirements of Doctor of Philosophy, School of Management, Faculty of Business, Queensland University of Technology.

Fleenor, J., Taylor, S., & Chappelow, C. (2008). *Leveraging the impact of 360-degree feedback*. New York, NY: Wiley.

Fleishman, E. A., Mumford, M. D., Zaccaro, S. J., Levin, K. Y., Korotkin, A. L., & Hein, M. B. (1991). Taxonomic efforts in the description of leader behavior: A synthesis and functional interpretation. *Leadership Quarterly*, 2(4), 245-287

Forrester, R. H. (2000). 'Capturing learning and applying knowledge: an investigation of the use of innovation teams in Japanese and American automotive firms', Journal of Business Research, 47, 35–45.

Foucault, M. (1991). *Discipline and Punish: The birth of prison.* London: Penguin Books.

Freeman, R. (1984). *Strategic management: A stakeholder approach*. Boston, MA: Ballinger

Fulmer, R. and Bleak, J. (2008). *Strategically Developing Strategic Leaders,* 2nd ed., Pfeiffer.

García-Morales, V., Lloréns-Montes, F. and Verdú-Jover, A. (2008). The Effects of Transformational Leadership on Organizational Performance through Knowledge and Innovation. *British Journal of Management*, 19(4), 299-319.

Gardner, W. and Avolio, B. (1998). The Charismatic Relationship: A Dramaturgical Perspective. *Academy of Management Review*, 23(1), 32-58.

Garcı´a-Morales, V., Llore´ns-Montes, F. & Verdu´-Jover, A. (2008). The Effects of Transformational Leadership on Organizational Performance through Knowledge and Innovation. *British Journal of Management*, Vol. 19, 299–319 DOI: 10.1111/j.1467-8551.2007.00547.x

Garson, G. D. (2009). *Structural equation modeling*. Retrieved October 23, 2010, from http://faculty.chass.ncsu.edu/garson/PA765/structur.html.

Garver, M. S., and Mentzer, J. T. (1999). Logistics research methods: Employing structural equation modeling to test for construct validity. *Journal of Business Logistics, 20*, 33-57.

George, R., Siti-Nabiha, A., Jalaludin, D. and Abdalla, Y. (2016). Barriers to and enablers of sustainability integration in the performance management systems of an oil and gas company. *Journal of Cleaner Production*, 136, 197-212.

Glynn, M. A. (1996). 'Innovative genius: a framework for relating individual and organizational intelligences to innovation', *Academy of Management Review,* 21(4), 1081–1111.

Goffin, K. and Mitchell, R. (2010). *Innovation Management*. 1st ed. Basingstoke: Palgrave Macmillan.

Gold, A., Malhotra, A., and Segars, A. (2001). Knowledge management: an organizational capabilities perspective. *Journal of Management Information Systems,* 18(1), 185-214

Gopal, R., & Chowdhury, R. G. (2014). Leadership styles and Employee Motivation: An empirical investigation in a leading oil company in India. *International Journal of Research in Business Management* (IJRBM), 2(5), 2347-4572.

Grint, K. (2005). *Leadership: Limits and possibilities*, Palgrave Macmillan, Basingstoke.

Grint, K. (2010). *Leadership: A very short introduction*. Oxford University Press, Oxford.

Gundry, L.K., Muñoz-Fernandez, A., Ofstein, L.F. and Ortega-Egea, T. (2015). "Innovating in organizations: a model of climate components facilitating the creation of new value", *Creativity and Innovation Management,* 25(2), 223-238.

Gurdijan, P., Halbeisen, T., & Lane, K. (2014). Why leadership-development programs fail? *McKinsey Quarterly*, January, 2014.

Hall, D. (2004). Self-awareness identity and leader development. In D. V. Day & S. J. Zaccaro & S. M. Halpin (Eds.), *Leader development for transforming organizations: Growing leaders for tomorrow:* 71-98. Mahwah, NJ: Erlbaum.

Hall, J., Johnson, S., Wysocki, A. and Kepner, K. (2008). *Transformational Leadership: The Transformational of Managers and Associates,* University of Florida, FL.

Hamstra, M., Van Yperen, N., Wisse, B. & Sassenberg, K. (2014). Transformational and Transactional Leadership and Followers' Achievement Goals. *J Bus Psychol*, 29, 413–425. DOI: 10.1007/s10869-013-9322-9

Hargis, M., Watt, J. and Piotrowski, C. (2011). Developing leaders: Examining the role of transactional and transformational leadership across business contexts. *Organization Development Journal* 29 (3), 51–66.

Hart, E. W., and Kirkland, K. (2001). *Using Your Executive Coach*. Greensboro, N.C., Center for Creative Leadership

Hart, R. K., Conklin, T. A., & Allen, S. J. (2008). Individual leader development: an appreciative inquiry approach. *Advances in Developing Human Resources,* 10(5), 632-650.

Hart, S. and Bandury, C. (1994). 'How strategy-making process can make a difference', *Strategic Management Journal*, 15(4), 251–270.

Helfert, E. A. (1994). *Techniques of Financial Analysis* (8th edn), Boston, MA: Irwin.

Higgins, R. C. (1995). *Analysis for Financial Management* (4th edn), Boston, MA: Irwin.

Hogg, M. A. (2001). A social identity theory of leadership. *Personality and Social Psychology Review,* 5(3), 184-200

Homburg, C., H. Krohmer & Workman, J. P. (1999). Strategic consensus and performance: the role of strategy type and market-related dynamism, *Strategic Management Journal*, 20, 339–357.

Hooley, G., Broderick, A. and Möller, K. (1998). Competitive positioning and the resource-based view of the firm. *Journal of Strategic Marketing*, 6(2), 97-116.

Horton, D. (2003). *Evaluating Capacity Development Experiences From Research And Development Organizations Around The World*. 1st ed. The Hague: ISNAR.

Hoyle, R. (2000). Confirmatory Factor Analysis. In H. E. A. Tinsley & S. D. Brown (Eds.), *Handbook of Applied Multivariate Statistics and Mathematical Modeling*, (pp.465-497). New York: Academic Press.

Hu, L., and Bentler, P. M. (1998). Fit indices in covariance structure analysis: Sensitivity to under parameterized model misspecification. *Psychological Methods*, 3(4), 424−453.

Hubbard, G. (2006). Sustainable organisation performance: Towards a practical measurement system. *Monash Business Review*, 2(3), 1-19.

Hubbard, G. (2009). Measuring organizational performance: Beyond the triple bottom line. *Business Strategy and the Environment*, *18*(3), 177–191.

Hüsing, T., Korte, W.B., Fonstad, N., Lanvin, B., Cattaneo, G., Kolding, M., Lifonti, R. and Van Welsum, D. (2013). e-Leadership: e-Skills for Competitiveness and Innovation – Vision, Roadmap and Foresight Scenarios, Final Report, empirica – Gesellschaft für Kommunikations und Technologieforschung mbH, Bonn.

IBM (2020). *Essential Tactics to Foster Innovation in Oil and Gas*. Industry leaders in 25 countries weigh in. Armonk: IBM, pp.1-20.

Iscan, Ö. F., Ersari, G., & Naktiyok, A. (2014). Effect of leadership style on perceived organizational performance and innovation: The role of transformational leadership beyond the impact of transactional leadership - An application among Turkish SME's. *Procedia – Social and Behavioral Sciences,* 150, 881-889. https://doi.org/10.1016/j.sbspro.2014.09.097

Iuliana, I. & Maria, C. (2016). Organizational Performance – A Concept that Self – Seeks to Find Itself*, Annals of the „Constantin Brâncuşi" University of Târgu Jiu, Economy Series*, Issue 4 ACADEMICA BRÂNCUŞI"

Jaccard, J., and Wan, C. K. (1996). *LISREL approaches to interaction effects in multiple regression.* Sage Publications, Inc.

Jacobs, R. and Jaseem Bu-Rahmah, M. (2012). Developing employee expertise through structured on-the-job training (S-OJT): an introduction to this training approach and the KNPC experience. *Industrial and Commercial Training*, 44(2), 75-84.

Jago, A. G. (1982). Leadership: Perspectives in theory and research. *Management Science*, 28(3), 315-336

Jahanshahi, A., Rezaei, M., Nawaser, K., Ranjbar, V. and Pitamber, B. (2012). Analyzing the effects of electronic commerce on organizational performance: Evidence from small and medium enterprises. *African Journal of Business Management*, 6(15), 6486-6496.

Jai Persaud, A. (2007). *Innovation and Performance: The Case of the Upstream Petroleum Sector,* Unpublished doctoral thesis, Carleton University.

Jiang, W., Zhao, X. and Ni, J. (2017). The Impact of Transformational Leadership on Employee Sustainable Performance: The Mediating Role of Organizational Citizenship Behavior. *Sustainability*, 9, 1576, 1-17.

Jauhar, J., Chan Soo Ting, & Abdul Rahim, N. (2017). The impact of reward and transformational leadership on the intention to quit of generation y employees in oil and gas industry: moderating role of job satisfaction. *Global Business & Management Research, 9*, 426–441.

Jones, M., Cline, M. and Ryan, S. (2006). Exploring knowledge sharing in ERP implementation: an organizational culture framework. *Decision Support Systems*, 41(2), 411-434.

Kahle-Piasecki, L. (2011). Making a mentoring relationship work: What is required for organizational success. *Journal of Applied Business and Economics, 12*(1), 46-56.

Katsikeas, S., Leonidas C., and Neil A. (2000). "Firm-Level Export Performance Assessment: Review, Evaluation, and Development," *Journal of the Academy of Marketing Science*, 28 (4), 493–511.

Kazbour, R. and Kazbour, L. (2013). *Strategic Techniques to Enhance Training Transfer*. *T+D Training + Development*. Alabama: ASTD, pp.92-93

Kearsley, G. (1982). *Costs, Benefits, and Productivity in Training Systems*. 1st ed. Reading, Mass.: Addison-Wesley.

Kelemen, M. and Rumens, N. (2008). *An Introduction to Critical Management Research.* London: Sage.

Kellerman, B. (2012). *The end of leadership*. New York: HarperCollins

Kelloway, E. & Barling, J. (2000). What we have learned about developing transformational leaders. *Leadership and Organization Development Journal.* 355-362

Kelloway, K. E., Barling, J., & Helleur, J. (2000). Enhancing transformational leadership: The roles of training and feedback. *Leadership and Organizational Development Journal*, 21, 145-149.

Khalili, A. (2016). Linking transformational leadership, creativity, innovation, and innovation-supportive climate. *Management Decision*, 54(9), 2277-2293.

Khan, S. A., & Ismail, W. K. W. (2017). To Evaluate The Impact Of Transformational Leadership On Organizational Learning. *CLEAR International Journal of Research in Commerce & Management, 8*(9), 1-6.

King, N. (2004). *Using templates in the thematic analysis of text*. London: Sage Publications.

Waring, T. and Wainwright, D. (2008), Issues and challenges in the use of template analysis: two comparative case studies from the field, *The Electronic Journal of Business Research Methods*, 6(1) 85-94.

Kirkbride, P. (2006). Developing transformational leaders: The full range leadership model in action. *Industrial and Commercial Training*. 38(1), 23-32. DOI: 10.1108/00197850610646016

Kirpatrick, D. (1994). *Evaluating training programs: The four levels*, Berrett-Koehler Publishers, San Francisco.

Klein, K. J. & Zeigert, J. C. (2004). Leader development and change over time: A conceptual integration and exploration of research challenges. In D. V. Day & S. J. Zaccaro & S. M. Halpin (Eds.), *Leader development for transforming organizations: Growing leaders for tomorrow* (pp. 71-98). Mahwah, NJ: Erlbaum.

Kline, R. B. (2005). *Principles and practice of structural equation modeling*. New York, NY: The Guilford Press.

Kolodziejczyk, J. (2015). Leadership and Management in the Definitions of School Heads. *ATHENS JOURNAL OF EDUCATION*, 2(2), pp.123-136.

Kotter, J. P. (1990). *A force for change: how leadership differs from management.* New York: Free Press

Kotter, J. (1996). *Leading Change*, Harvard Business Review Press, Boston.

Kotter, J. (2014). *Accelerate*, Harvard Business Review Press, Boston.

Kotter, J.P. and Heskett, J.L. (1992), *Corporate Culture and Performance*, Free Press, New York, NY.

Kouzes, J. M., & Posner, B. Z. (2007). *The leadership challenge: How to get extraordinary thigs done in organizations.* San Francisco: Jossey-Bass.

Kruse, K., 2020. *Top 5 Leadership Development Trends For 2020*. [online] Forbes. Available at:<https://www.forbes.com/sites/kevinkruse/2020/01/15/top-5-leadership-development-trends-for-2020/> [Accessed 2 June 2021].

Kuhnert, K.W. (1994). Transforming leadership: Developing people through delegation. In B.M. Bass & B.J. Avolio (Eds.), *Improving organizational effectiveness through transformational leadership* (pp.10-25). Thousand Oaks, CA: SAGE.

Kula, S. (2011). *Occupational stress and work-related wellbeing of Turkish National Police (TNP) members*. Unpublished doctoral thesis. University of Central Florida.

Kusunoki, K., Nonaka, I. & Nagata, A. (1998). Organizational capabilities in product development of Japanese firms: a conceptual framework and empirical findings, *Organization Science*, 9, pp. 699–718.

Le, P. and Lei, H. (2019). Determinants of innovation capability: the roles of transformational leadership, knowledge sharing and perceived organizational support. *Journal of Knowledge Management*, 23(3), 527-547.

Leskiw, S. and Singh, P. (2007). Leadership development: learning from best practices. *Leadership & Organization Development Journal*, 28(5), 444-464.

Lowe, K. and Gardner, W. (2000). Ten years of The leadership quarterly: Contributions and challenges for the future. *The Leadership Quarterly*, 11(4), 459-514.

Lowe, K. B., Kroeck, K. G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the MLQ literature. Leadership Quarterly, 7(3), 385-425.

MacKie, D.J. (2014). The effectiveness of strength based executive coaching in enhancing full range leadership development. A controlled study. *Consulting Psychology Journal. Practice and Research, 66*, 118–137.

Manderscheid, S. and Ardichvili, A., 2008. A conceptual model for leadership transition. *Performance Improvement Quarterly*, 20(3-4), 113-129.

Mason, C., Griffin, M. and Parker, S. (2014). "Transformational leadership development",

Leadership and Organization Development Journal. 35(3), 174-194.

Mason, K., Oshri, I. and Leek, S. (2012). Shared learning in supply networks: evidence from an emerging market supply network. *European Journal of Marketing*, 46(11/12), 1743-1762.

Mazur, J. and Zaborek, P. (2016). Organizational Culture and Open Innovation Performance in Small and Medium-sized Enterprises (SMEs) in Poland. *International Journal of Management and Economics*, 51(1), 104-138.

McCauley, C. D., & Van Velsor, E. (Eds.). (2005). *The center for creative leadership handbook of leadership development*. San Francisco: Jossey-Bass.

Megheirkouni, M. (2016). Factors influencing leadership development in an uncertain environment. *Journal of Management Development*, 35(10), 1232-1254.

Mensch, K. G., & Dingman, M. E. (2010). Practitioner's corner. Redefining leader development: Organizational learning that encourages a culture of transformation. *International Journal of Leadership Studies, 6*(1), 152-159.

Mercer, M. (2019). *Leadership Development Trends 2019*. A survey report based on a study of 200+ organizations. Haryana: Mercer Mettl, pp.1-46.

Michael, O.S., & Chipunza, C. (2009). Employee retention and turnover: Using motivational variables as a panacea. *The African Journal of Business Management*. 3(8), 410- 415.

Mihret Dessie, W. and Shumetie Ademe, A., (2017). Training for creativity and innovation in small enterprises in Ethiopia. *International Journal of Training and Development*, 21(3), pp.224-234

Mirimoghadam, M. and Ghazinoory, S. (2017). An institutional analysis of technological learning in Iran's oil and gas industry: Case study of south Pars gas field development. *Technological Forecasting and Social Change*, 122, pp.262-274.

Morgan, N. A., Kaleka, A., & Katsikeas, C. S. (2004). Antecedents of export venture performance: A theoretical model and empirical assessment. *Journal of Marketing*, 68(1), 90–108.

Morgeson, F. P., Mumford, T. V., & Campion, M. A. (2005). Coming full circle: Using research and practice to address 27 questions about 360-degree feedback programs. *Consulting Psychology Journal: Practice and Research, 57,* 3, 196–209.

Naguib, H., Abou Naem, A. (2018). The impact of Transformational leadership on the organizational innovation. *The International Journal of Social Sciences and Humanities Invention*, 5(01), 4337-4343

Naji, K., Du, X., Tarlochan, F., Ebead, U., Hasan, M., & Al-Ali, A. (2020). Engineering

students' readiness to transition to emergency online learning in response to COVID-19:

Case of Qatar. *EURASIA Journal of Mathematics, Science and Technology Education*, 16

(10), em1886. DOI: 10.29333/ejmste/8474

Naranjo-Valencia, J., Jiménez-Jiménez, D. and Sanz-Valle, R. (2016). Studying the links between organizational culture, innovation, and performance in Spanish companies. *Revista Latinoamericana de Psicología*, 48(1), pp.30-41.

Nazarian, A., Irani, Z., and Ali, M. (2013). The Relationship between National Culture and Organisational Culture: The Case of Iranian Private Sector Organisations, *Journal of Economics, Business and Management,* 1(1), 8-15

Nas, T. (1996). *Cost-benefit analysis*, Sage Publications, Thousand Oaks, California.

Niemann-Struweg, I. and Grobler, A. F. (2011). "South African marketing and communication agencies understanding of integrated communication (IC): a true reflection of the concept?" *Prism*, 8(1), 1–13.

Nonaka, I. and Takeuchi, H. (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation.* New York: Oxford University Press.

Nouara, A. (2015). *Development of Performance Measurement Model for Oil Operations: A Study of Libyan Oil Companies*, PhD thesis, Brunel University London.

Northouse, P. (2016). *Leadership*. 7th ed. London: SAGE.

Nowack, K. and Mashihi, S., (2012). Evidence-based answers to 15 questions about leveraging 360-degree feedback. *Consulting Psychology Journal: Practice and Research*, 64(3), 157-182.

Okoji, O. (2014). Influence of Leadership Styles on Community Development Programmes' Implementation in Rural Communities of Akwa Ibom State Nigeria. *African Research Review*, 8(2), p.83.

Olivares, O., Peterson, G. and Hess, K. (2007). An existential-phenomenological framework for understanding leadership development experiences. *Leadership & Organization Development Journal*, 28(1), 76-91.

Oman 2040 Main Committee (2019). *2040 Oman Vision*. Moving forward with Confidence. Muscat: Oman 2040 Main Committee, 1-27

Omar, M. & Mahmood, N. (2020). Mediating the effect of organizational culture on the relationship between training and development and organizational performance. *Management Science Letters*, 10, 3793–3800. DOI:10.5267/j.msl.2020.7.032

Osborne, Jason W. (2015). "What is Rotating in Exploratory Factor Analysis?" Practical Assessment, Research, and Evaluation: Vol. 20, Article 2.

O'Connor, P. M. G. & Quinn, L. (2004). Organizational capacity for leadership. In C. D. McCauley & E. Van Velsor (eds), *The Center for Creative Leadership handbook of leadership development* (2nd ed., pp. 417–437). San Francisco: Jossey-Bass.

Pact. (2015). *Organization Performance Index (OPI): A practical guide to the OPI for practitioners and development professionals*. Washington, DC: Pact. Retrieved from http://www.pactworld.org/library/pacts-organizational-performance-index-handbook.

Paine, N. (2017). *Building Leadership Development Programmes - Zero-Cost To High-Investment Programmes That Work*. 1st ed. London: Kogan.

Reiss, K. (2007). *Leadership and coaching for educators*, Thousand Oaks, CA: Corwin.

Padilha, C. and Gomes, G. (2016). Innovation culture and performance in innovation of products and processes: a study in companies of textile industry. *RAI Revista de Administração e Inovação*, 13(4), 285-294.

Palus, C., J., & Horth, D., M. (2004). Exploration for Development. In C. D. McCauley & E. Van Velsor (eds), *The Center for Creative Leadership handbook of leadership development* (2nd ed., pp. 438- 464). San Francisco: Jossey-Bass.

Patterson, T., Stawiski, S., Hannum, K., Champion, H. and Downs, H. (2017). *Evaluating The Impact Of Leadership Development*. 2nd ed. Greensboro, NC: Center for Creative Leadership.

PDO (2014). *Sustainability Report 2014.* Petroleum Development Oman.

PDO (2018). *Sustainability Report 2018: Building a Sustainable Future.* Petroleum Development Oman.

PDO (2019). *Sustainability Report 2019: Committed to Sustainable Development.* Petroleum Development Oman.

Penman, S. H. (2001). *Financial Statement Analysis and Security Valuation*, New York: McGraw-Hill.

Perrons, R. (2014). How Innovation and R&D happen in the upstream Oil & Gas Industry: Insights from a Global Survey. *Journal of Petroleum Science and Engineering*.124, 301-312

Peterson, M., and Smith, P. (2000).Sources of Meaning, Organisations, and Culture. In: Ashkanasy, N.M., Wilderom, C., Peterson, M., Schneider, B. (Eds.), *The handbook of organisational culture and climate.* Sage, Thousand Oaks, CA.

Phillips, J. (1997). *Return on investment in training and performance improvement programs*, Butterworth-Heinemann, Boston.

Phillips, J. (2003). *Return On Investment In Training And Performance Improvement Programs, Second Edition*. 2nd ed. Amsterdam: Butterworth-Heinemann.

Phillips, P. (2002). *Understanding The Basics Of Return On Investment In Training*. 1st ed. London: Kogan Page.

Phillips, P. (2002). *Measuring ROI in the Public Sector*, In Action Series, ed by J Phillips, American Society for Training and Development, Alexandria, Virginia.

Podsakoff, P., MacKenzie, S., Moorman, R. & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *The Leadership Quarterly*, 1(2), 107-142

Pradhan, S., Jena, L. & Bhattacharyya, P. (2018). Transformational leadership and contextual performance: Role of integrity among Indian IT professionals. *International Journal of Productivity and Performance Management*, 67(2), 445-462. DOI:10.1108/IJPPM-08-2016-0186

Prajogo, D. (2006). The relationship between innovation and business performance: A comparative study between manufacturing and service firms. *Knowledge and Process Management*, *13*(3), 218-225.

PWC Report. (2013). *Gateway to growth: Innovation in the oil and gas industry*.

Quinn, R. and Rohbaughm J. (1983). A spatial model of effectiveness criteria: Toward a competing values approach to organizational analysis, *Management system,* 29, 363-377.

Rafferty, A. and Griffin, M. (2004). Dimensions of transformational leadership: Conceptual and empirical extensions. *The Leadership Quarterly*, 15(3), 329-354

Rawashdeh, A. & Tamimi, S. (2020). Perceptions of training on organizational commitment and turnover intention: An empirical study of nurses in Jordanian hospitals. *European Journal of Training and Development*, 44(2/3), 191-207. DOI: 10.1108/EJTD-07-2019-0112

Raza, H., 2014. Training and Development impact on Organizational Performance: Empirical Evidence from Oil and Gas Sector of Pakistan. *IOSR Journal of Business and Management*, 16(1), pp.67-72.

Reddy, C. and Srinivasan, V. (2015). Dialogue on leadership development. *IIMB Management Review,* 27(1), pp.44-55.

Reed, M. (2005). 'Reflections on the 'realist turn' in organization and management studies', *Journal of Management Studies*, Vol. 42, pp. 1621–44.

Ren, F. and Zhang, J. (2015), Job stressors, organizational innovation climate, and employees innovative behavior, *Creativity Research Journal*, 27(1), 16-23.

Reuvers, M., van Engen, M.L., Vinkenburg, C.J. and Wilson-Evered, E. (2008), "Transformational leadership and innovative work behaviour: exploring the relevance of gender differences", Creativity and Innovation Management, 17(3), 227-244.

Richard, P., Devinney, T., Yip, G. and Johnson, G. (2009). Measuring Organizational Performance: Towards Methodological Best Practice. *Journal of Management*, 35(3), 718-804.

Robbins, S. (2005). *Organizational Behavior*. 11th ed. New Jersey: Pearson Prentice Hall.

Roberts, P., & Amit, R. (2003). The dynamics of innovative activity and competitive advantage: The case of Australian retail banking, 1981-1995. *Academy of Management Journal*, *27*(1), 25-41.

Rogers EW, Wright PM. (1998). Measuring Organizational Performance in Strategic Human Resource Management: Looking Beyond the Lamppost. CAHRS Working Paper Series, p. 135.

Sadik-Rozsnyai, O. (2016). Willingness to pay for innovations. *European Journal of Innovation Management*, 19(4), 568-588.

Salas, E., Tannenbaum, S., Kraiger, K. and Smith-Jentsch, K. (2012). The Science of Training and Development in Organizations. *Psychological Science in the Public Interest*, 13(2), pp.74-101.

Samad, S. (2012). The Influence of Innovation and Transformational Leadership on Organizational Performance. *Procedia - Social and Behavioral Sciences*, 57, pp.486-493.

Samuel, M. and Chipunza, C. (2009). Employee retention and turnover: Using motivational variables as a panacea. *African Journal of Business Management*, 3(8), pp.410-415.

Sanz-Valle, R., Naranjo-Valencia, J. C., Jimenez-Jimenez, D., & Perez-Caballero, L. (2011). Linking organizational learning with technical innovation and organizational culture. *Journal of Knowledge Management*, *15*(6), 997–1015.

Saunders, M, Lewis, P. and Thornhill, A. (2009). *Research Methods for Business Students,* Pearson Education, Harlow.

Saunders, M., Lewis, P. and Thornhill, A. (2019). *Research Methods for Business Students*. 8th ed. New York: Pearson.

Savoie A, & Morin E. (2002). Les représentations de l'efficacité organisationnelle: développements récents. In R. Jacob, A. Rondeau & D. Luc. *Transformer l'Organisation*. (pp. 206-231). Gestion: collection «Racines du savoir»

Schein, E. H. (1984). Coming to a new awareness of organizational culture. *Sloan Management Review*, Winter, 3–16.

Schien, E.H. (2004). *Organisational culture and leadership*, 3rd edition, Jossey-Bass.

Schneider, B. (2000). The psychological life of organizations, in Ashkanasy, N.M., Wilderom, C.P.M. and Peterson, M.F. (Eds), *Handbook of Organizational Culture and Climate*, Sage, Thousand Oaks, CA, pp. xvii-xxi.

Schneider, W. (2017). *Lead Right For Your Company's Type: How To Connect Your Culture With Your Customer Promise*. New York: AMACOM.

Schreiber, J. B., Nora, A., Stage, F. K., Barlow, E. A., and King, J. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research, 99*(6), 323-338

Schumacker, R. E., Lomax. R. G. (2004). *A beginner's guide to structural equation modeling* (2.th ed.). London: Lawrence Erlbaum Associates, Publishers.

Semuel, H., Siagian, H. and Octavia, S. (2017). The Effect of Leadership and Innovation on Differentiation Strategy and Company Performance. *Procedia - Social and Behavioral Sciences*, 237, pp.1152-1159.

Senge, P. (1993). *The Fifth Discipline*. London: Random House.

Shaker, T. I. and Basem, Y. A. (2010). Relationship Marketing and Organizational Performance Indicators. *European Journal of Social Sciences,* 12 (4), 544-557.

Shepherd, C. (2008). *The Blended Learning Cookbook*, London, Saffron Interactive.

Shebaya, M. (2011). *Leadership development: the role of developmental readiness, personality dispositions, and individual values*. *PhD thesis,* Aston University.

Shurbagi, A. (2014). The Relationship between Transformational Leadership Style Job

Satisfaction and the Effect of Organizational Commitment. *International Business Research*, 7(11), 126-138, DOI:10.5539/ibr.v7n11p126

Smith, J. A., & Foti, R. J. (1998). A pattern approach to the study of leader emergence. *Leadership Quarterly*, 9(2), 147-213

Solansky, T. S. (2010). "The evaluation of two key leadership development program

components: Leadership skills assessment and leadership mentoring". *The Leadership*

Quarterly, 21(4), 675-681.

Son, T., Phong, L. & Loan B. (2020). Transformational Leadership and Knowledge Sharing: Determinants of Firm's Operational and Financial Performance. *SAGE Open*, 1-13. DOI:10.1177/2158244020927426

Srinivas, R. Swamy, D., Nanjundeswaraswamy, T. (2019). Quality management practices in oil and gas industry. *International Journal for Quality,* 14(2) 421–438.

Stank, T., Esper, T., Crook, R. and Autry, C. (2012), Creating relevant value through demand and supply integration. *Journal of Business Logistics,* 33(2), 167-172

Stevens, P. (2008). A methodology for assessing the performance of national oil companies. *Background Paper for a Study on National Oil Companies and Value Creation*, Washington, DC: World Bank.

Strukan, E., Terek, E., & Nikolic, M. (2019). Impact of leadership on interpersonal trust at work in enterprises in Bosnia and Herzegovina. *Journal of Engineering Management and Competitiveness (JEMC)*, 9(1), 48-59

Subramanian, A., & Nilakanta, S. (1996). Organizational innovativeness: Exploring the relationship between organizational determinants of innovation, types of innovations, and measures of organizational performance. *Omega*, *24*(6), 631-647.

Swart & Otremba (2016). Innovation in Oil and Gas: Canada 2016.Monitor Deloitte, Doblin.

Tahir, N., Yousafzai, I., Yousafzai, I., Jan, D. and Hashim, M. (2014). The Impact of Training and Development on Employees Performance and Productivity: A case study of United Bank Limited Peshawar City, KPK, Pakistan. *International Journal of Academic Research in Business and Social Sciences,* 4(4).

Tang, G., Park, K., Agarwal, A. and Liu, F. (2020). Impact of Innovation Culture, Organization Size and Technological Capability on the Performance of SMEs: The Case of China. *Sustainability*, 12(4), p.1355.

Taqi, A. (2016). *A qualitative analysis of the current and future leadership development needs of third -line leaders in the oil and gas sector in Kuwait*. Unpublished doctoral thesis, University of Stirling.

The EY Report (2015). *Driving operational performance in oil and gas*, EYGM Limited.

Thompson, E. (2010). *How to be a better mentor, Journal of Accountancy*, 10 (5), 42- 43.

Ting S., & Hart, E. (2004). Formal coaching. In C. D. McCauley & E. Van Velsor (eds), *The Center for Creative Leadership handbook of leadership development* (2nd ed., pp. 116–150). San Francisco: Jossey-Bass.

Tofasakademi.com. (2020). *What Is 4MAT? – Tofaş Akademi*. [online] Available at: <https://tofasakademi.com/what-is-4mat/> [Accessed 19 September 2020].

Tordo, S., Warner, M., Manzano, O. and Anouti, Y. (2013). Local content policies in the oil and gas sector, A World bank study. International Bank for Reconstruction and Development. *The World Bank*.

Training, (2001). Top 50 Training Organizations, *Training* 38, no, 3 (March): pp 70-77.

Trochim, W. (2006). *The Research Methods Knowledge Base*, Atomic Dog Publishing,

Cincinnati, OH.

Vaccaro, I., Jansen, J., Van Den Bosch, F., & Volberda, H. (2012). Management Innovation and Leadership: The Moderating Role of Organizational Size. *Journal of Management Studies*, 49. DOI: 10.1111/j.1467-6486.2010.00976.x

Van Buren, M. (2001). *State of the Industry Report 2001,* American Society for Training and Development (51), Alexandria, Virginia.

Van Maanen, J. (1983). *Qualitative Methodology*, London: Sage.

Van Velsor, E., & McCauley, C. D. (2004). Introduction: Our view of leadership development. In C. D. McCauley & E. Van Velsor (Eds.), *The Center for Creative Leadership handbook of leadership development* (2nd ed., pp. 1-22). San Francisco: Jossey-Bass.

Venkatraman, N. & Ramanujan, V. (1986). 'Measurement of business performance in strategy research: a comparison of approaches', Academy of Management Review, 11 (4), 801–814.

Vogt, W. (1993). *Dictionary of Statistics and Methodology*, Newbury Park, CA: Sage

Waal, B., Outvorst, F. & Ravesteyn, P. (2016). Digital Leadership: The Objective-Subjective Dichotomy of Technology Revisited.12th European Conference on Management Leadership and Governance, Bucharest, Romania.

Wan, T. T. H. (2002). *Evidence-based health care management: Multivariate modeling approaches* (1st ed.). Norwell, MA: Kluwer Academic Publishers.

Waring, T. and Wainwright, D. (2008), Issues and challenges in the use of template analysis: two comparative case studies from the field, *The Electronic Journal of Business Research Methods*, 6(1) 85-94.

Watson, C. & Hoffman, L. R. (2004). The role of task-related behavior in the emergence of leaders. *Group & Organization Management*, 29(6), 659-685

Whitmore, J. (2017). *Coaching for performance: The principles and practice of coaching and leadership*. London: Nicholas Brealey Publishing

Wichert, I. (2018). *Accelerated Leadership Development: How To Turn Your Top Talent Into Leaders*. 1st ed. London: Kogan Page.

Wu, A. (2008). *Pratt's Importance Measures in Factor Analysis: A New Technique for Interpreting Oblique Factor Models*, Vancouver: The University of British Columbia.

Yang, J. (2007). Knowledge sharing: Investigating appropriate leadership roles and collaborative culture. *Tourism Management*, 28(5), 530-543.

Yin, R. K. (2004). *Case Study Research: Design and Methods*, Sage Publications, London.

Zachmeier, A. F. and Cho, Y. (2014). "Taking Stock of the Literature on HD Education", *European Journal of Training and Development*, 38(4), 347-363.

Zahari, I. and Shurbagi, A. (2012). The Effect of Organizational Culture and the Relationship between Transformational Leadership and Job Satisfaction in Petroleum Sector of Libya. *International Business Research*, 5(9), 89-97.

Zhang, M., (2011). Firm-level performance impact of IS support for product innovation. *European Journal of Innovation Management*, 14(1), 118-132.

Zhang, Y., Zheng, J. and Darko, A. (2018). How Does Transformational Leadership Promote Innovation in Construction? The Mediating Role of Innovation Climate and the Multilevel Moderation Role of Project Requirements. *Sustainability*, 10(1506), 1-19.

Zuofa, T. and Ocheing, E. (2017). Senior Managers and Safety Leadership Role in Offshore Oil and Gas Construction Projects. *Procedia Engineering*, 196(2017),1011-1017.

APPENDICES

Appendix A: Questionnaire (Experimental Group)

Dear Sir

This survey aims to identify your views and perceptions about the impact of PDO's Leadership Essentials Programme on Transformational Leadership skills, Innovation Culture, and Organisational Performance at PDO. It is part of my research toward a doctoral degree at University of Wales Trinity Saint David in the United Kingdom.

Your participation and response on this questionnaire is highly appreciated. Please read the items carefully and respond truthfully and objectively. Your participation is optional, confidential, and anonymous (identities of respondents are not identified). You are not required to put your name on the questionnaire and the information you provide will be kept confidential and will be used for the research purpose only.

Thank you for your time and cooperation.

Mohamed Albandari

Participants Information

Please read the information carefully before deciding to take part in this research. If you are happy to participate, please print your initials in the following consent line:

Please Type Initial

What is the research about?

The aim of this study is to identify the impact of Leadership Development Programme on Transformational Leadership skills, Innovation Culture, and Organisational Performance at PDO.

Are there any risks involved?

There is no risk expect sacrificing 15 to 20 minutes of your valuable time to answer the survey.

Will my participation be confidential?

As part of complying with the Data Protection Act and the Data Protection Policy of the University, all your data will be kept confidential. Data will be coded and kept in files on a password protected system. Your information will only be shared with the supervisory team.

What happens if I change my mind?

If you change your mind and you are no longer interested to be part of this study, you have the right to withdraw at any time.

Where can I get more information?

If you have any question after reading this information sheet, you may contact the researcher anytime.

Mohamed Albandari

Email: surveydba2018@gmail.com

Please type yes or tick ✓to each statement below:

- The purpose and details of this study have been explained to me.
- I have had an opportunity to ask questions about my participation.
- I understand that I am under no obligation to take part in the study, have the right to withdraw from this study at any stage for any reason, and will not be required to explain my reasons for withdrawing.
- I agree to take part in this study.
- I understand that all the personal information I provide will be treated in strict confidence and will be kept anonymous and confidential to the researchers unless (under the statutory obligations of agencies which the researchers are working with), it is judged that confidentiality will have to be breached for the safety of the participant or others or for audit by regulatory authorities.

Job Title:

Experience: Less than 5 years 6-10 years 11- 20 years and above

Gender: Male Female

Age: Less than 30 years 30-39 years 40-49 years over 49 years

Education Level: PhD Master BSc Diploma

Nationality: Omani Other, Please specify

Please indicate your level of agreement about how the Leadership Essentials Programme at PDO have enabled you to have the following transformational leadership skills. Please tick only one box for each item. The scale is:

1 Strongly Disagree 2 Disagree 3Neutral 4 Agree 5 Strongly Agree

Question 1 Transformational Leadership Skills

The leadership Essentials Programme at PDO enabled me to:		**1**	**2**	**3**	**4**	**5**
1	Seek new opportunity for my department at PDO					
2	Inspire my employees with PDO plan for the future					
3	Make my employees committed to the plan					
4	Lead by doing rather than by telling					
5	Provide a good model to follow					
6	Foster collaboration among work groups					
7	Develop a team attitude and spirit among employees					
8	Insist on only best performance					
9	Show that I expect high performance from my employees					
10	Show respect for my employees personal feelings					
11	Behave in a manner that is thoughtful of my employees personal needs					
12	Think in a new ways of looking at things which used to be puzzle for me					
13	Rethink some of my own ideas that I have never questioned before					

Question 2. Innovation Culture

The leadership Essentials Programme at PDO contributes to develop best practices of a culture of innovation by:		**1**	**2**	**3**	**4**	**5**
14	Making sure that innovation strategy at PDO is relevant and understood by my employees					
15	Reorganizing and aligning organisational structure in my department to the changing markets					
16	Selecting suitable team structure for each project of innovation					
17	Linking innovation strategy to employee development with appropriate reward and recognition system					
18	Building on norms (sharing knowledge& sharing resources, taking risks, suppressing new ideas)					
19	Encouraging my employees to identify new opportunities					

Question 3. Organisational Performance

The Leadership Essentials Programme at PDO enabled me to improve tangible and intangible organisational performance by:		**1**	**2**	**3**	**4**	**5**
20	Increasing existing assets utilization					
21	Expanding new (products, markets& partners)					
22	Enhancing profitability of existing customers					
23	Reducing cost expenses & eliminating defects & improving quality					
24	Enhancing employee retention					
25	Enhancing competitive advantages in health, safety, environment and community investment					

Question 4. Please add your general views about Leadership Essential Programme at PDO

Please send your answers on word document file to: Surveydba2018@gmail.com

Thank you. Your participation is highly appreciated

Appendix B: Questionnaire (Control Group)

Dear Sir

This survey aims to identify your views and perceptions about Transformational Leadership skills, Innovation Culture, and Organisational Performance at PDO. It is part of my research toward a doctoral degree at University of Wales Trinity Saint David in the United Kingdom.

Your participation and response on this questionnaire is highly appreciated. Please read the items carefully and respond truthfully and objectively. Your participation is optional, confidential, and anonymous (identities of respondents are not identified). You are not required to put your name on the questionnaire and the information you provide will be kept confidential and will be used for the research purpose only.

Thank you for your time and cooperation.

Mohamed Albandari

Participants Information

Please read the information carefully before deciding to take part in this research. If you are happy to participate, please print your initials in the following consent line:

Please Type Initial

What is the research about?

The aim of this study is to compare your views with other participants who have completed the Leadership Essentials Programme (LE) in order to identify the impact of Leadership Development Programme on Transformational Leadership skills, Innovation Culture, and Organisational Performance at PDO.

Are there any risks involved?

There is no risk expect sacrificing 15 to 20 minutes of your valuable time to answer the survey.

Will my participation be confidential?

As part of complying with the Data Protection Act and the Data Protection Policy of the University, all your data will be kept confidential. Data will be coded and kept in files on a password protected system. Your information will only be shared with the supervisory team.

What happens if I change my mind?

If you change your mind and you are no longer interested to be part of this study, you have the right to withdraw at any time.

Where can I get more information?

If you have any question after reading this information sheet, you may contact the researcher anytime.

Mohamed Albandari Email: surveydba2018@gmail.com

Please type yes or tick ✓to each statement below:

- The purpose and details of this study have been explained to me.
- I have had an opportunity to ask questions about my participation.
- I understand that I am under no obligation to take part in the study, have the right to withdraw from this study at any stage for any reason, and will not be required to explain my reasons for withdrawing.
- I agree to take part in this study.
- I understand that all the personal information I provide will be treated in strict confidence and will be kept anonymous and confidential to the researchers unless (under the statutory obligations of agencies which the researchers are working with), it is judged that confidentiality will have to be breached for the safety of the participant or others or for audit by regulatory authorities.

Job Title:

Experience: Less than 5 years 6-10 years 11- 20 years and above

Gender: Male Female

Age: Less than 30 years 30-39 years 40-49 years over 49 years

Education Level: PhD Master BSc Diploma

Nationality: Omani Other, Please specify

Please indicate your level of agreement about how the Leadership Essentials Programme at PDO have enabled you to have the following transformational leadership skills. Please tick only one box for each item. The scale is:

1 Strongly Disagree 2 Disagree 3Neutral 4 Agree 5 Strongly Agree

Question 1 (Transformational Leadership Skills)

I always :		**1**	**2**	**3**	**4**	**5**
1	Seek new opportunity for my department at PDO					
2	Inspire my employees with PDO plan for the future					
3	Make my employees committed to the plan					
4	Lead by doing rather than by telling					
5	Provide a good model to follow					
6	Foster collaboration among work groups					
7	Develop a team attitude and spirit among employees					
8	Insist on only best performance					
9	Show that I expect high performance from my employees					
10	Show respect for my employees personal feelings					
11	Behave in a manner that is thoughtful of my employees personal needs					
12	Think in a new ways of looking at things which used to be puzzle for me					
13	Rethink some of my own ideas that I have never questioned before					

Question 2. Innovation Culture

I always:		**1**	**2**	**3**	**4**	**5**
14	Make sure that innovation strategy at PDO is relevant and understood by my employees					
15	Reorganise and align organisational structure in my department to the changing markets					
16	Select suitable team structure for each project of innovation					
17	Link innovation strategy to employee development with appropriate reward and recognition system					
18	Build on norms (sharing knowledge& sharing resources, taking risks, suppressing new ideas)					
19	Encourage my employees to identify new opportunities					

Question 3. Organisational Performance

I always seek to:		**1**	**2**	**3**	**4**	**5**
20	Increase existing assets utilization					
21	Expand new (products, markets& partners)					
22	Enhance profitability of existing customers					
23	Reduce cost expenses & eliminating defects & improving quality					
24	Enhance employee retention					
25	Enhance competitive advantages in health, safety, environment and community investment					

Please send your answers on word document file to: Surveydba2018@gmail.com

Thank you. Your participation is highly appreciated.

Appendix C: Questions of Interview with Managers and Senior Staff

1. How do you implement code of conduct at your department and what are the benefits for using transformational leadership skills?
2. What are the focus, priorities, and impact of using transformational leadership skills at your department on your staff?
3. What changes and training requirements would you suggest for future change for better transformational leadership skills?
4. How do you build norms of sharing knowledge, resources, and new technology at your department to promote innovation culture?
5. How do you involve your stakeholders in innovation, and what are the risks?
6. What changes and training requirements would you suggest for future change for building better innovation culture?
7. What is the purpose and impact of diversity and inclusion on innovation culture and organisational performance at PDO?
8. What are the challenges of implementing diversity and inclusion and how do you deal with these challenges?
9. What changes and training requirements would you suggest for future change for improving diversity and inclusion?
10. How do you link business to performance targets?
11. What is the focus of PDO performance targets, and what methods do you implement for performance review and improvement?
12. What changes and training requirements would you suggest for future change for enhancing organisational performance?

Appendix D: Questions of Interview with Trainers of Leadership Essentials Programme

1. Can you please describe your role in the Leadership Essentials Programme at PDO?
2. Who are the trainees and how you select them?
3. How do you identify the training needs?
4. How long is the duration of the programme, and how is it delivered?
5. Can you please describe the content and the focus of each module of the Leadership Essentials Programme at PDO?
6. How do you assess the trainees, and how do you provide them with feedback and follow-up support during the implementation of the Leadership Essentials Programme?
7. How do you evaluate the Leadership Essentials Programme at PDO, and how do you make changes to it?
8. What changes and training requirements would you suggest for future change for improving the Leadership Essentials Programme to enhance organisational performance at PDO?

Appendix E

INFORMED CONSENT FORM

Please tick the circle below each statement

◯ The purpose and details of this study have been explained to me.

◯ I have had an opportunity to ask questions about my participation.

◯ I understand that I am under no obligation to take part in the study, have the right to withdraw from this study at any stage for any reason, and will not be required to explain my reasons for withdrawing.

◯ I agree to take part in this study.

◯ I understand that all the personal information I provide will be treated in strict confidence and will be kept anonymous and confidential to the researchers unless (under the statutory obligations of the agencies which the researchers are working with), it is judged that confidentiality will have to be breached for the safety of the participant or others or for audit by regulatory authorities.

Appendix F: Type One Interview

Interview with a Director

Transformational Leadership in Code of conduct

Collectivity is one of the key main things that I feel that PDO is improving at the corporate level in the last year so noticeably. Because it has been quite a low line for the company. A lot of people feel that it is an important issue and it somewhere we need to improve and it such a key issue for the **caring of your staff,** and everybody feels that he is part of the team and **equal sense and there is no discrimination**. This is **one of main elements of code of conduct that is most relevant to us here in my team of exploration** and **we properly all need to connect with this topic more frequently.** The team needs to **be focused on business delivery, media operations, as well as keeping the team happy and engaged and challenged. Those are generally your priorities. Also, Safety is a priority, it is a base line,**

As a leader you should always look to improve the team, individuals and as collective as a team, so when you move on you leave a legacy of a more efficient improved setup, and the key thing to be a good leader is developing the staff, I think that partly transformational leadership is transforming people.

We had some people here who have joined exploration with not a great track record in other past business, and we have managed to focus on through coaching, and listening to them and encouraging them at their own paste, getting them up to speed, and bringing them into the team. As soon as people start to feel that they are part of the team, they are contributing, and then we are ready to improve their performance

. On the other end of the scale, we give the more talented staff, the space, and the support and the stability to go and deliver as a capable of doing without micro managing them or getting in their way.

So, in terms of developing staff, **we focus in terms of developing staff on coaching sessions, which are frequent and not necessarily focused on day to day delivery, but sort of mentoring sessions on how to improve weak areas, and giving them feedback sometimes. I think we are quite successful at that.**

Innovation Culture

We are doing innovation as a team, I think PDO as whole is a fairly innovative company, where in compare to where I come from in Shell, where the company does pick up to change quite quickly because we are onshore business we can afford sometimes to deploy new techniques which are quite expensive to try offshore, and we have some successes there.

I think **data analytic is a focus area for PDO**. We have dedicated an engineer here in the team to help the team to drive that through and it is quite creative guy so we are giving him the space and time to get into that role, and we are beginning to have some impact. Results are not coming through yet, it will take years to get the database in good shape before we can get real results.

Technology trials, we are looking at deploying fishbone technology which is a new drilling technique. We have not deployed that here yet but we are looking for opportunities of doing that. We are constantly looking for new ways of improving our delivery.

In terms of innovation, most of our staff are young and they are not introducing new technologies at this stage because they are still coming here to learn the foundation through training courses but more through hands on experiences.

We handle that by each discipline, so we are team of 20 people, and we have got four different disciplines, and each one has a discipline lead, who is senior person who is accountable for helping the discipline development of those people so they are in charge for proposing the next training courses and technical coaching. PDO is quite good in structuring the formal training

courses, and there is a graduate development programme for the first three years of the staff career, and that defines what training course should the staff take each year, and beyond the three period years when they graduated, it becomes more less loosely to define what course should the individual take. We will always support training courses, and we prioritize what help them deliver their day to day work. We make sure that the training is relevant to the person.

In terms of Leadership training, I have got two team leaders reporting to me, there are both young Omanis who are in their first leadership positions, they will attend the Shell leadership course, which is 12 month programme with two face to face training sessions, and they have to attend some of the in house courses. I also have to coach them in leadership, and we have frequent conversations about that. As for other staff who don't have a formal team, but I still see senior staff who are still leading, so I look to develop the leadership skills for those people as well. It is hard to get them into the Shell leadership course because they are not line managers, but I try to make them attend other local training courses here. I think everybody is a leader, and we need to be aware of that and we bring different skills to the table, and it does not really matter if you are a line manager or just a senior team person or a junior member of the team or influencing and helping steer other people either consciously or sub consciously, and I think it is important to keep that dialogue going with people to make sure they appreciate that.

For me PDO Leadership Framework is respect, engagement, and performance and collaboration. It is the leadership priorities at PDO.

Inclusion and Diversity

I have two team leaders, both Omanis, one of them is male and the other is female. The Omani lady is very forthcoming, very confident, very solid performer, and she is very approachable. So when I deal with some the Omani female graduates who tend to be very quiet and reserved

in the team discussions, I think they need a role model. I have a Muslim non-Omani engineer who with the Omani lady leader both act as role models for the Omani females in the team. They make them feel as locals to be confident, and they should not make only the males and the expats dominate everything, and do not let the seniors dominate everything. I think as a senior expat man, I and others need to bring more others into conversations in meetings and so on as a continual challenge here, but it is something I am aware of as a start.

Organisational Performance and LEAN

I prefer to refer to LEAN as continuous improvement. I tend to focus on continues improvement in terms development of people and improvement of processes. So continues improvement means improving ourselves as individuals, and how to improve those processes so that we can do more with less and how can we be more efficient, and how to cut out the stuff that is not adding any value. I am an advocate for continuous improvement, and I have a strong admiration for continuous improvement since I have been here.

When I joined PDO coming Shell, nobody was talking about it or doing much at PDO exploration, so I have helped the kick off start of it a bit. The challenges we have are that some staff feel that we are not too clever to innovate and to do LEAN projects. LEAN works for a process that at factories in Toyota garages which requires high level of conceptual thinking people, so how we can LEAN that, so people had that sort of mind-set thinking. But in my mind there is always room to improve, and if you improve, we can save time. In fact we have **spent little time doing conceptual thinking**, but I spent most of my time finding data, analysing data, communicating with each other, managing projects, and all of these are a processes which can be continuously improved. So we are in a journey and in the last two years we have started that journey within our team.

So far, we have set of regular sheet projects, and I have done one of them with my staff and the lead discipline is doing the other two of them now, and to drive some of our key processes to be more efficient, but I think success when everybody in the team connects to continuous improvement every day or every week is looking for small improvement in the way they do their work, so when the next person comes in and does that piece of work in the next field or next well, then they pick up those variances form the last person and efficiency is embedded and they make the process slightly better from one generation to the next.

In the drilling department, it is a challenge to make lean explicit in terms of saving money or generating more income. It might be easier in finance or drilling department where they deal with money, but in exploration it is difficult. We can say that we can do our projects one week quicker than what we have been doing previously or we can set a target of doing our projects 20% faster than the previous year. I don't worry much about showing the value of it in terms of money because I don't think that is so tangible for us. The top management is moving us in the right direction to improve our process, and the value generation and cost reduction will come eventually.

So, we have continuous improvement board in our department with other parts and departments of the business, and only got two of these boards here in exploration of about 60 people with two teams with them. Everybody has to write some ideas, and we usually have a conversation in our team to discuss those ideas related to the hurdles of work with our stakeholders. So it is all about continuous improvement and everybody is part of it and helping us to drive in the right direction.

I really believe in it and it is not the easiest topic to push in sub-surface or exploration department. In PDO, they key thing that Lean does is not about ticking boxes and meeting targets but it is about improving business so we can create value for the shareholders.

Suggestions for Future Leadership Development Programmes

I think in our department of exploration, we need to improve the development of the new team leads, because it is a heck of transition to make, you can be working in the last 10 or 15 years as a technical contributor, and suddenly team lead with a very different success criteria and skills sets required from you, and you can be a very technical team member, and suddenly you are in a team lead role, and some of us take it very naturally and others struggle with it and even the good ones they all have areas where they struggle with. So I think even the senior managers tend to have been through that journey and they are not perfect either. But I think those people who are in the first five years of headship career, I think they probably need more help, more advice, more coaching, a bit more training than what they are currently getting.

PDO plans to put more Omanis into the leadership positions which is fantastic, and there are very smart young people are going to those roles, but there are smart and proven themselves 10 years in technical career, but this does not translate into being a fantastic team leader and that can have such an impact on the organisation if you are putting in less experience team leads who are not ready. They are great, and they will get there but it will be quite painful few years while they get there and in those few years that team lead can feel demotivated and confused and unpowered and micromanaged and all of these things and it really difficult if the company have inexperienced new middle management new team leads. I think much more can be done particularly in coaching and mentoring of ourselves. I always raise this with my leaders here as well.

In PDO, in this period of transition, there is a big wave coming through now, in the last three years I have been working here, I have seen lots of experienced expatriates are leaving, and there have been replaced with talented young smart Omanis leaders who I think need more support and development.

We need to help each other as leaders because managing people is one thing, but leading people, inspiring people, coaching people in life skills and how to behave in office, or what their aspirations are and to structure them is another thing and harder and it takes time to master these leadership skills.

Appendix G: Type Two Interview

Interview with Trainer of Leadership Essential Programme

I am the leadership trainer, in the Learning and development Centre, and my main role is the delivery of Leadership Essentials Programme. It consists of 4 different modules, each module last three days, and candidates do it sequentially, there is usually about **6 months gap minimum to proceed to the next module.** Some senior candidates because they are so busy, I may not see them for even one or two years after finishing each module. However, younger fresh graduate staff who join the programme usually continue the four modules in less time.

Each module has the same level of difficulty and they don't increase in complexity, so each module is not more advanced than other three modules

Candidates deal with different topics areas in each modules. For example, Module 1 focuses on understanding leadership (introduction into leadership), motivation, problem solving and decision making. So in first day we focus on introduction to leadership, and in second day, we cover motivation, while in the third day, we discuss problem solving and decision making. We teach them during the discussion that leadership is not about what you can do, but it is about your skills and talent, and how to get that from other people ., challenges of leadership, characteristics and traits of good leadership, including the survey that have been done by Kouzes and Posner about what people look for in great leaders. We also teach them the difference between a leader and a manager (we have an activity involving that). Also, we cover the topic of transformational leadership and leadership styles. We start at 7:30 am and we finish at 3:30 pm with a lunch break in the middle.

The main focus of module 2 is achieving your objectives through yourself and through others. So in day one, we cover the topic of time management (understanding where your time goes, what is urgent and important, and how urgency is affected by time but importance is affected by the changing circumstances. Understanding where your time goes, and managing your time, and how to use it effectively, and how to say no in a constructive way to other people. We also cover presentation skills during the three days, because it is related to achieving your objectives. Presentation skills include the aim of the presentation, the results that you want, how to design a presentation, mind mapping, what to remember when writing your presentation. So after the design and the writing, we teach them how to prepare for presentation, and then things to bear in mind when it comes to delivery i.e. your tune, your voice, and your eye contact. We used to ask them to present in the third day but now we don't ask them to present and we cover more topics in the third day. Due to the limited time, we encourage them to join other program provided by PDO where they can practice presentation skills. So we focus on the main points of presentation to remember such as the aim, the design, the delivery, and the preparation. In day two, we do coaching, where we break them into groups (each group consist of 3 candidates), the scenario, and the change. So we have the main theory, and then alit bit of practice. We focus on the main things to bear in mind when coaching such as extracting the information from the coachee, and a lot of talking should come from them, and the role of the coach is to guide them. Punctuality and clutter is another topic we cover that is related to time management and organizing yourself. Clutter is all about how to manage your environment, it sounds like a personal topic, but it is amazing how it impacts the work situation.

Thus, we cover Punctuality, clutter and procrastination. We also cover meeting management (what to do before, during, and after the meeting).We were asked by PDO to include this topic because they found that some meetings are really problematic and if not done properly, it affects people work life balance, because they spend more time in meetings that are not properly run.

The focus of module three is communication skills (mainly face to face communication). For example, in day one, we discuss assertiveness (getting what you want and the same time listening to the rights of the other side) instead of aggression, or instead of submissive and shy and passive. We start with assertiveness because it affects other topic we do in module 3. We also do something connected with the D&I called micro-iniquity. It is about the way we treat people but on microscopic level, microscopic acts of disrespect which sometimes might be hidden or they do not know if they are doing it, or it may be because we have made unconscious judgement when we see a woman or a black person or sometimes we make immediate judgements based on our meetings and that can affect the way we communicate. So an example of micro-inequity, when ladies in a meeting come up with an idea, and it kind of dismissed, and a man will come up with the same idea few minutes later, and it is accepted. So they often feel it is happening, and lots of people, they got micro-inequity all the times in life, so we need to be aware when it is happening to us, and when we are doing it to other people. So diversity and inclusion is part of micro-iniquity. We also teach them the opposite of micro-iniquity, which is micro-affirmation (when we make small acts to make people feel better, and how to praise other people, and how to remember to praise when it is due. PDO is generally a very good atmosphere to thrive, because they are so strong on D&I and a good culture of mutual respect. The directors at PDO are approachable and friendly, and if you have that coming from the top, it will filter throughout the company. One of the examples that candidates bring about what motivates them to work in PDO is the system and the policy of PDO, and for some people especially who worked in other organisations even if they do not have high salary, the good system and policy in PDO in the main motivator.

In addition, in LE3, day 2, we do feedback (giving and receiving feedback), why is that so important and should be given regularly, and should be given right way, very close to the time of the event, otherwise, it losses its value. So the end of year performance review we are having with staff, nothing should be a surprise, because the feedback have been happening throughout the year, then the meeting at the end should be just a rubber stamp. Nobody should be wondering when they go to meeting how this should go, if the feedback happening throughout the year whether it is negative or positive, then our staff should know what is happening throughout the year.

In addition, we also in LE3 day 3, we look at negotiation skills including the main tips to bear in mind when negotiating, and we have in the last day afternoon a role playing scenario, where two teams are given a case study, and they have to negotiate. One of the case study is a hotel negotiating with a college for the use of hotel rooms, and they negotiate the prices, and what they are going to get, and the participants really get excited, and I keep reminding them that this is a role playing. So we give them by the end the tips to bear in mind when negotiating, and we ask them to have an alternative plan, and to put hypothetical things on the table, and they use those tips in the negotiating session, and the good thing is that if we have people sometimes in the room from contract and procurement, and some departments who do a lot of

negotiating, so when they are in the room they contribute with an active discussion and debate from their experience.

Module four is about the features and characteristics of high performing teams. This includes high performing teams share knowledge, high performing teams have trust within the organisation, high performing teams always operate within norms and a good team should act if anybody is going away from the norms of the team. We also touch up on Belbin's theory of team roles. For example, we look at different charts where everyone has to know what to do in the team, i.e. innovators, resource investigators. Thus everybody has a particular role in the team, and the best team when everyone perform his role in the team and complement each other. Another aspect is the best performing team, where we compare between the performance of small size team and large size team who have lots of social misbehaviour issues, and in large teams some people may do less work. We also cover change management but not into details. We teach them that the best team is the team that is ready to change, and we teach them about change cycle, and change resistance, but they come round so the good leader will try to manage a good team, and making that cycle shallow, so if leader can minimize anxiety among the team to embrace change that would be better. So innovation is covered by making people psychologically ready for change, for taking calculated risk, and LEAN can also be connected to this. In LEAN, they are taught , to do any task, they have to follow a standard operating procedure , so when some people leave, the new comers know where to pick up the work by following the procedure, and even that procedure they can even make better from what they have discovered

Candidates Selection

Candidates of TL programme are nominated through a process by their team leads or their division manager. We have a mixture of qualified candidates, but it has been **decided recently by PDO that LE should be part of the graduate development process,** so now we get more graduates, but we still have candidates who don't have a degree, and most of them are who have done LE1 and LE2, and they are coming back to do LE3 and LE4. So we get a real mix who are mainly from graduates, managers, supervisors, senior supervisors.

We don't get higher management, but we might get those sometimes as individual performers, so we do get expats i.e. Dutch, British, and Indians as individual performers. We **don't get senior managers from job group 1 and 2. LE candidates start from job group 3**. We try to make sure that we have a mixed group of candidates.

We had times when the whole group were First degree graduates, so there we do have a challenge because they don't have anything to compare their real world and to model their discussion on. But still, I think that the skill of the trainer even with that try to get them talking with what they know even if it means they are talking about the future, or if they are talking about what they think could be the ideal situation, so we still do get a discussion. We try to have a mixture i.e. experienced and inexperienced, and then you find there is a discussion in the room, because the experienced people talk about their experience, and the younger ones can learn from that but they can add their views.

After completing each module, candidates need to wait a minimum of six months before joining the next module, but if the candidate is a high ranking position from job group 3 or job group

4, then they can join the next available module, and they can finish the LE programme in a year. We ask younger graduate to take at least six month time to try to implement what they learnt and then come back.

Delivery 70:20:10

We cannot really make sure if they are implementing what they have learned, it is up to them, but we are always open if they want to come back and ask us about any material or website, and because we are only two LE trainers, we really stick to the delivery but our door is open if they have a question. We ask them before they leave each module to note down and think about all the questions, and try to implement all of this, and when they come back for their next module, we spend the first session going through what did they do in the work place, so that it is the extent to which we help, but we don't actively monitor while they are away.

Identifying Training Needs

We do ask them at LE1 what do you want from this course, and many of them treat it as an opportunity for personal development, something to make me not just better as a leader in the company in the future, but also something for my life is going to happen to be a better person.

We constantly changing the tweaking materials based on the things that we hear, and based on what is going on, what is more relevant, and what is going out of date. So, we constantly changing things all the time, and sometimes we do that directly as result of what comes from the company. We don't act on every single thing, we make a judgment about it, because otherwise we will be busy, we cannot make the course specific to one person all the time, it has to cater to everybody, but we have to listen to every feedback, and something did come strongly from the company, for example, we cover feedback, how to give feedback, and the company is very strong about how should that be done at PDO, how to handle meetings because the company felt that a lot of time is wasted at meetings . So, although they will learn in the company, they want that to be covered at LE as well.

LE is always been in-house programme. We had before **the Institute of Leadership and Management (ILM),** and we were connected with them, and they did not have anything in our design or delivery, they were just accrediting the programme, and they would send a certificates, but especially when the crises of oil prices happened, we looked at every Oman Riyal we spend, and if you consider we have hundreds of candidates who go through LE programme, the certificates from ILM were about 50 Omani Riyals each. So, we decided in the end that there is no need for certificates and we have our own certification now, and we felt that even if you leave PDO and join another company they will take you due to leadership course you did with PDO, so LE course with PDO is like if you did a leadership course with the BBC, any big employer in the UK, that would be powerful in itself. So we felt that our own certificate stand alone was sufficient.

Last year, we took also 20 candidates from Ministry of Health in our LE programme. They have done LE1 this year and they will come back next year for LE2 but that does not have much, it is very limited and it was pilot and very small scale. We did that cohort exclusively for the Ministry of Health.

PDO candidates tend to talk about everything in the discussion even about things that are quiet sensitive. And they could talk about experiences they had in their lines. For example, one

candidate could speak without names about where they feel it did not work, they felt they were not getting certain leadership behaviours happening, so that is what everybody talks about, and that kind of chatter, we don't want to have external people in the room, and if there are external people even the PDO people will not speak because they may feel nervous about what they say. Even if we want an open environment especially if there is a challenging discussion going on, that's why we kept that external experiment, we kept it purely external.

Assessment and Feedback

We ask candidates for anything that can be improved in LE programme., and what they are happy with , and to what extent it is relevant to the work they do, and do they try to implement what they have learned in the work place?. So there is a questionnaire and it is in the computer system we have, so we don't actually give it out, a link is sent to them, and they can do it online.

We don't have any kind of formal assessment but if their departments ask for feedback we can give them. Even the ILM was purely accredited certification without any assessment or any kind of assignments or exams. In the past, **we had assignments and assessments, and through ILM, but we felt that the efforts required was much both from our team and also from the candidates, and it was much more than what we receive in return, and again because we are only two people, it became almost impossible to be marking all that materials. So in end, we decided to stop that assessment of 3000 words assignments that we had with ILM, that could happen in a college because they had a full team of educators, and assessors, and we don't have that in PDO, and that why we could not entertain that route, because that really requires an office just dealing with that work, and that's something we cannot do with our set up.**

Extra Learning Materials and References

We give them references where they can learn more information, but I don't know the exact details of it, and I think this is developing. I think they have access to the Shell learning library, I am not sure if they have access to that, but I remember **the Director of Learning and Development Centre always looking for online facilities for people to use after course. For example, if they want to know more about procrastination, they can go to this portal and they can find all that stuff, but we don't direct them to anything like that, mainly we can tell them books they can read and websites they can go to.** If we need any materials, PDO is generally very good in providing it. There used to be a library over here, but the space was needed for other oil and gas facility,

LEAD Advanced Shell Programme

We don't coordinate with them, because LEAD programme is done by shell and it is run in PDO. I think they have external trainers who come and run the course, and they are either from Shell or Shell have hired another training company to run the programme. Who gets nominated for the LEAD programme, and what are the criteria, all these things, I and my colleague who run LE do not get involved in that. Lead programme is something separate, but I believe that those who have join the LEAD programme after doing the LE programme they have good foundation. Lead also cover the main generic leadership areas. So those who join LEAD without doing LE before will not be missing important information, and I expect that LEAD also covers similar topics such as coaching, mentoring, delegation, time management, and change management. So they look at all those things, and I expect in LEAD they are doing it

on a level based on the candidate's experience, and they may have more than two trainers to handle training needs.

What Changes Can be considered for the Programme?

In each cohort we take only 20 candidates, and we cannot take more. Me and my colleague every week we do different module, and it keeps rotating, for example, in module three I will see faces that I saw in module 1 and 2. So as long as we manage it like that. I think we are at the optimum level and we are ok. There isn't any need or drive for additional resources. The candidates are mainly Omanis, I did module 3 last week, and everybody was Omani in that cohort, the week before there was only one expatriate, sometimes we may have four or five expatriates but the majority are Omani.

Frankly, me and my colleague don't really sit and talk what are we going to do for next year, we are constantly tweaking and changing and if we feel something is changeable we do it then. So we always feel that the programmes are being **monitored and updated and good fit** as we going along, so we do that continuously, so continuous improvement is that what we do in term of the course. But, the **admin people** at the Learning and Development Centre **look at the process**, me and my colleague we don't get involved in that, we do attend meetings but this is their area. They deal with **how the process can be smoother, the registration, getting the candidates' nomination, are we meeting our targets in terms of who is attending and what numbers, they have the pie chart and everything, and in the process, that is where LEAN is taking place.** Most of the candidates are males, but we have good candidates of females who absolutely contribute and we have kind of team activity, the males sometimes admit they can see the women are working , and somebody said a joke last week, they won because two females (Fatma and Aisha) were in that team. They are working really well. There were some courses where the women were so proactive and they know what they want.

Comparing LE with other Oil and Gas companies in neighbouring countries

No not specifically, because companies don't want to share its materials with other companies, and they are very protective about their materials, and it is the same with PDO as well, we don't go inside neighbouring companies and requesting information but we research and we try to compare what's happening generally best practice in the world i.e. what is latest theories, what are the latest ideas that is happening in leadership and management, so always looking out for those kind of stories and articles like that, but specific in the Middle East but no specifically with other companies. Some of those themes are universal anyway, for example, **Deep Water Horizon, the big explosion in the gulf of Mexico with BP** company, if you look at the things that happened there, they were to do with basic real **communication issues** between people where there was a pride in the team, and there **wasn't a trust** among **that team**, and there was **non-cooperation**, and there were **people insulting each other**. This example happened in oil and gas industry, but it can also happen in an aircraft with a crash, it can happen in any kind of management situation , where just lack of trust, lack of communication, lack of transparency. So we talk quiet universally about the course, and the other reason because they are already in oil and gas for 24 hours, so in LE programme they need to hear examples from other industries in other part of the world, and we don't want to bother them with just with one particular area. So we keep our talk generic and universal.

Inviting guest speakers from the company and linking LE topics with LEAN and Leadership Framework at PDO

Yes we will bear that in mind. The graduates when they come, they had lots of other courses as well i.e. induction programme, EP00 course entry into oil and gas industry, working together, business life with (guest speakers from outside), so certainly the graduates get exposure to other course as well.