CONSTRUCTING LEADERS’ BEHAVIOUR AND SITUATIONAL FACTORS TOWARD ORGANIZATIONAL PERFORMANCE AT ABU DHABI NATIONAL OIL COMPANY (ADNOC) IN THE UNITED ARAB EMIRATES (UAE)

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Abstract:
The need for effective leadership has remained critical to capacity building and sustenance of competitive advantage in both public and private businesses. Nonetheless, leadership effectiveness has remained a multi-dimensional construct, and not many attempts have been made to conceptualise models in this area. Considering the case of Abu Dhabi National Oil Company (ADNOC), the principal aim of the present study was to update and empirically support the traditional Contingency Model of Leadership Effectiveness in order to achieve a more credible model useful to contemporary organisations. It was observed that leader characteristics and hierarchy structure are not good determinants of leadership behaviour in the organisation. A final attempt was made to validate the Contingency Model of Leadership Effectiveness with the help of data gathered in the present study. Data validates the traditional model of leadership to a large extent; this is especially true for task-oriented leadership behaviour as opposed to relationship-oriented leadership behaviour. It is recommended that future researchers consider activity-based constructs for the measurement of variables to obtain more significant and validate critical relationships in the model. It is also recommended that ADNOC and other corporations in the region give equal attention to male and female employees and leaders. Females would particularly strive in positions where leader-subordinate relationships are critical for overall organisational success.

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1. Introduction

The multi-dimensional nature of leadership permits specific leadership formats recommendable to specific organizational contexts. The subject of leadership effectiveness and its measurement is contingent on multiple independent factors, inhibiting a clear consensus on any single widely accepted leadership effectiveness model. To establish any robust model of leadership effectiveness, the consideration of leadership contribution to performance has been deemed paramount. According to McFarlane & Cooper (2014), leadership effectiveness is reflected in team and organizational performance and requires the right combination of strategies that allow the understanding of team needs and processes. Schermerhorn et al., (2012) add that there is the need to focus on team and organizational performance that arise as a result of leadership, in order to assess leadership effectiveness. Developing high performance organizations through effective leadership is critical to ensure that the challenges and problems that are associated with the 21st century business development are solved. Well-managed followers have the capability to convert a general sense of purpose into desired performance objectives (Erkutlu, 2008). The need for effective leadership has remained critical to capacity building and sustenance of competitive advantage in both public and private businesses (Belias & Koustelios, 2014; Caligiuri & Tarque, 2012; Wallis & McLoughlin, 2007). The global economy has taken a competitive landscape, increased in complexity and become more dynamic and ambiguous to manage (Caligiuri & Tarque, 2012). Bridging the gap towards improved performance on the global platform has become more challenging (Caligiuri & Tarque, 2012). The Global financial crisis, increasing economic turbulence, unending scandals involving leaders around the globe, has among others triggered the need to pay attention to leadership effectiveness (De Cremer et al., 2011). Aside from the established need to associate leadership with performance in effective leadership models, Schermerhorn et al., (2012) assert that the correct blend of skill in the areas of technical, decision making, problem solving as well as inter-personal skills are all critical to guide followers’ attitudes and behaviours towards the achievement of organizational goals. Yukl (2006) agree with this assertion that leadership effectiveness closely depends on the outcomes and consequences of the leaders’ actions and activities within the group and organizational environment. These environmental considerations are equally important as situational factors (Kabanoff, 1981). Leadership plays a fundamental role in overcoming institutional and national economic challenges and difficulties.

According to UAE Interact (2016), the leadership of UAE has put in place measures to ensure that the business community remains highly attractive and that key sectors are protected. Other national economic decisions such as pegging of the United Arab Emirates Dirham (AED) against the United States Dollar (USD), the removal of taxes from
imports and personal income, among others have altogether contributed to the establishment of a lucrative environment for business success (ORYX World, 2013; Khamis et al., 2010). The UAE remains an active member of the World Trade Organization (WTO), General Agreement on Tariffs and Trade (GATT) and the Greater Arab Free-Trade Area (GAFTA). Despite these resilient measures which have been adapted to nurture the UAE economic environment over the last several decades, the country has remains largely oil dependent (Mills, 2016). The downward slope of global oil prices has taken a significant toll on economies in the Gulf Corporation Council (GCC) and other oil dependent countries including UAE. Even though the oil producing communities have taken several stands for mega producers like Iran and the Kingdom of Saudi Arabia to control production, no stringent enforcement measures exist, and these stands have been largely unsuccessful (McDonald 2016). Others including Raval (2016) have highlighted that disagreements among oil producers exist as some producers agree to tighten production only after other countries make initial moves in this direction. Moving from the national level to the institutional level, there has been the need for effective leadership to drive institutional development and organizational performance in oil companies. Mills (2016) argued for instance on the introduction of radical measures and leadership change in oil institutions in order to tackle and reduce the negative impact of the economic trends. Subjects such as gender equality in leadership have been considered by ADNOC and other establishments in the sector to ensure that all forms of expertise are welcomed to lead such institutions (Al Hilal Publishing & Marketing Group, 2016). According to McAuley (2016), the company has considered the need for women in various roles as chief executive officers.

The need to model effective leadership in ADNOC is critical to the assumption of key strategic paths that can benefit the institution and UAE as a whole. There is no doubt that the area of leadership has received tremendous attention in literature, yet serious gaps remain on leadership effectiveness models. A model of leadership effectiveness that considers performance and key ingredients as key elements has been left unattended and misappropriated in literature. This remains the main research gap of the present study. Beside this the study considering building on the Contingency Model of Leadership Effectiveness to meet contemporary business needs. Ultimately, the search for a contemporary concept of leadership effectiveness and not just leadership models but leadership effectiveness models proved rare at the commencement of the present study. Fiedler’s (1978) Contingency Model of leadership effectiveness was considered because it has gained dominance as a leadership effectiveness model; however, it is only backed by outdated literature and studies which have attempted to criticize or appraise the model.

2. Review of the Literature

Key theories and concepts that underlie the study are discussed in this chapter through a review of secondary literature. In this chapter, attention is paid to disagreements in
literature regarding concepts that have been tackled from different perspectives by different scholars.

2.1 Theoretical Background
Nehari Talet et al., (2014) argued that risk can be quantified and that it is “susceptible to measurement”. In other words, even though risk involves a high level of uncertainty, it may be considered that risk is a measurable uncertainty. Looking into literature concerning project management, it can be found that Knight’s argument is widely supported by other scholars in this area as established by Nehari Talet et al., (2014). Sicotte & Bourgault (2008) agreed with Nehari Talet et al., (2014) and mention that even though risk is uncertain, it is identifiable. On this note, a number of definitions of risk have been offered. Schneider & Levin (1997) for instance define risk as an event that poses a threat to the fortune of an entity if it happens. According to Richardson (2010), risk management of IT projects is not a simple concept as it seems in other aspect of business management; rather, it involves a combination of anticipation, planning, and monitoring of activities in order to be able to minimize the impact of potential undesirable events.

Taking a critical look at the concept of leadership from varied perspectives, it may nearly be accepted that a one-size fit all definition may be non-existent. The concept is ultimately dynamic in nature; the inconsistency in definitions and conceptualizations reveals this dynamism. Moreover, leadership involves a very wide range of skills, attitudes, behaviours or even accommodating situations. Leadership has therefore attracted a lot of attention as a role played by individuals, group and business processes. In this same way, leadership has evolved as function of individuals. From another perspective on the dynamic nature of leadership, Aydogdu & Basikjil (2011) considers leadership as a function and a role.

2.2 Leadership
According to Dartey-Baah (2015), discussions involving the concept of leadership reveal several theories and concepts. Some of these theories include the quite old “Great man theory” and behaviour theory, and the more recent and quite popular theories like the transactional and transformational leadership theories. In a similar scope as varied definitions, a number of theories of leadership have been proposed. One important starting point is the trait leadership theory. According to Jago (1982) and more recently by Bass (1990) and Zaccaro (2007), this line of theory emphasizes that leadership are borne and not made. Leadership were therefore believed to have certain traits originally inherent within and cannot be transferred or thought through training and development. Bass & Bass (2008) identified some of the key traits that come with leaders originally as including persistence, integrity, adaptability and esteemed socio-economic status. Theorist in this area have not been consistent; Whetten & Cameron (1991), Kirkpatrick & Locke (1991), Lord et al, (1986), Mann (1959) and Zaccaro (2007) among several others propose unique and different traits or categorization based on which leadership traits.
Originating from Jago (1982), the trait theory of leadership was founded on the notion that leaders are not trained, but rather, they are born as leaders.

According to Judge & Piccolo (2004), the trait theory of leadership remains the most honoured leadership research tradition where the individuals who are considered as leaders possess the above-mentioned attributes and qualities. It may be noted that, even in recent times, the trait theory of leadership has been given great regard, this is because, other theories of leadership when classifying leadership (with other forms of classification) tend to include some of these traits. According to Marturano & Gosling (2008), presents behaviour theory of leadership this line of theory is in an attempt to explain the different empirical explanations behind how leaders behaved and the categorization of key traits to that effect. Ghabchah presents situational theory of leadership, the situational theory of leadership style is the third type of leadership theory and is based on the assertion that situational factors dictate leadership success and success is not based on traits or any other set of behaviour exhibited by the leader but this theory emerged as a result of the increasing significant being gained by situational factors (Ghabchah et al., 2015).

According to Zhu et al. (2012), scholars in the field of organizational research have discovered that the organizational identification and work group identification of employees play strong roles in how well they perform assigned tasks (Walumbwa et al., 2008), their citizenship behaviour (O’Reilly III & Chatman, 1986), job satisfaction and other work outcomes as shown in Riketta (2005). Brouer (2012) points out that even though there has been research into collective identification with organizations and work units (Riketta, 2005; Riketta & van Dick, 2005), there is rather a lack of adequate research with regards to the personal identification of followers with leaders. Brouer (2012) argue that, in contrast to the concept of collective identification with the organization or the work unit, personal identification has more to do with the followers identifying with a single person (the leader) instead of the entire group. In contribution to this, Hobman et al., (2011) describe personal identification with the leader as a process of self-categorization in which the individual (follower) defines him or herself based on the attributes of the leader. Here, individuals pay a lot of attention to individual achievements for the leader and maintain a very strong relationship with the leader.

### 2.3 Behaviour Leadership

Marturano & Gosling (2008) have acknowledged that the behavioural theory of leadership emerged as a result of the challenges and difficulties in finding a working definition for leadership under the trait theory of leadership. This theory lies in the abundance of empirical researches aimed at finding out how leaders behave as well as arriving at categorizations for their behavioural attributes. Likert (1961) has also made key contributions to the behavioural theory of leadership. Likert (1961) emphasizes that leadership can be classified into three main groups. First, the task-oriented leadership involves leaders who place great focus on tasks such that need to be undertaken. Focus is placed on work planning and instructing and guiding workers towards the
achievement of goals. Secondly, relationship oriented leaders pay major attention to the development of the supportive role of followers. Lastly, participative leaders concentrate on collaborating and cooperating with followers, and have a high orientation to resolving conflicts.

2.4 Organizational Performance
Gavrea et al. (2011) emphasize that every organization aims to sustain performance, and this is because organizations are only able to grow through sustained performance. This suggests that organizational performance is considered as one of the most important variables in management research and leadership. It must however mention that, even though organizational performance is very popular in academic literature, it has been given several meanings by different researchers and this makes it difficult to arrive at a simple definition for it. This means that there is no single definition for the concept of organizational performance that is universally accepted. Georgopoulos & Tannenbaum (1957) viewed organizations as social systems and defined organizational performance in the 50s as the degree to which organizations achieve their goals. In more recent developments, Gavrea et al. (2011) add that the focus of performance evaluation during this period was on work, people and the structure of organizations. Another dimension of the concept worth noting is that performance is subject to individual or situational interpretation (Kaplan & Norton, 1992). The subjective nature of performance here stipulates that it is possible that different people understand the performance of an organization differently. For instance, the performance of an organization maybe interpreted differently by individuals within the organization and individuals outside the organization. It is necessary to identify the elements characteristic to every area of responsibility and situational elements in order to adequately define organizational performance.

Finally, Lebans & Euske (2006) argue that the ability to quantify the results achieved by an organization is necessary to report its level of performance. Observing the global economic conditions over the past few years, many organizations were affected worldwide (Fox, 2016). It is necessary for organizations to be have the ability to adapt and survive in the current business environment where challenges keep increasing day in day out (Gavrea et al., 2011). According to Gavrea et al. (2011), performance indicators are developed for the purpose of reporting the quality of the activities performed in an organization, they also provide support for the timely achievement of objectives within the constraints of a predetermined budget. However, Gavrea et al. (2011) argues that in order to effectively use these performance indicators, it is important to fully understand the role they play.

2.5 Internal and External Factors of Leadership
Recognition leadership behavior is linked with appreciation to innovative employees on their innovative performance, and, if, employee will not work accordingly then he will be punished. On the other side, providing vision leadership behavior is connected with
providing directions for future actions, communication of preferred types of innovation, and communication of explicit vision. Same as, in transactional leadership style, the role of supervisor, group performance and organizational performance is focused, and it is based on system of punishments and rewards. In business, employees are rewarded when they are successful, and they are punished when they fail (Akram, 2012). (Zhu et al, 2005) suggest that visionary leadership will result in high levels of cohesion, commitment, trust, motivation, and hence performance in the organisational environments. According to (Mehra et al 2006) when some organizations seek efficient ways to enable them to outperform others, a long’ standing approach is to focus on the effects of leadership. This is because team leaders are believed to play a pivotal role in shaping collective norms, helping teams cope with their environments and coordinating collective action. These leaders centered perspective has provided valuable insights into the relationship between leadership and team performance. (Avery 2008).

From the above discussion 3 variables have been extracted with sub variables

- Internal Factor - age, gender, scope, level and role
- Behavior leadership
- Organizational performance

3. Methodology of the Research

The part chapter elaborates on the methodological considerations of the study. It outlines the various considerations in the area of research design, instrumentation and other procedures adopted to establish empirical evidence in the area.

3.1 Conceptual Framework

The developments in literature point in the direction that the situational component of Fiedler’s (1964; 1967) contingency model of leadership has been the main draw-back in event of its validity and its ease of implementation. The conceptual framework of the study is presented in Figure 3.1. The present study builds on the Contingency Model of Leadership Effectiveness by drawing on contemporary theories and existing criticisms and examining how the contemporary model of effective leadership can be used to improve performance in an organizational context.

In the conceptual framework, the first relationship stipulates that the internal environment of the leader which constitute age, gender, and other factors within the hierarchy structure, affect or impact on the behavioural orientation of the leader; that is whether a leader will be relationship oriented or task oriented. On the other hand, a leader’s external environment which constitutes subordinate characteristics, group features and organizational elements should affect the situational conditions of the leader. Ultimately, both leadership behaviour and situational factors must be directed at the improvement of organizational performance. Situational factors must further moderate behavioural orientation towards performance.
3.2 Hypothesis of the Research
Based on the inter-relationships between the components and variables of the study presented in the conceptual framework of the study in Figure 3.1, key hypotheses are established. The hypotheses are backed by theoretical literature in this chapter of the study. After all the hypotheses, the validity of the model is tested empirically by setting extreme scenarios of a favourable and an unfavourable leadership situation.

\[
\begin{array}{|c|l|}
\hline
H(x) & Hypothesis \\
\hline
H1 & Leader’s internal environment has a significant effect on leadership behaviour. \\
H2 & Leadership behaviour has a significant effect on organizational performance. \\
\hline
\end{array}
\]

3.3 Research Design
The Research design consists of three main types namely descriptive, explorative and experimental. The current study is using the descriptive design as the most appropriate study design for this kind of study. According to Sekaran and Bougie (2010), “descriptive study is undertaken in order to ascertain and be able to describe the characteristics of the variables of interest in a situation” (p.105). This type of study is a guide for making observations to proper documentation of phenomenon of interest based on scientific method and therefore it is more reliable than doing casual observation which is conducted by untrained people.

Above and beyond, research design is a framework or blueprint for conducting the research. It refers to the logical structure of the inquiry by engaging with the logical problem not logistical issues (Malhotra, 2004). Basically, research design articulates what data is required, from whom and how it will answer the research question. Above all, research design affects the extent to which causal claims can be made about the impact of the intervention. The deductive approach is more associated with the quantitative approach as conducted in the present investigation. As mentioned by Gill & Johnson (2002), the deductive approach stems from theory to empirical assessment, usually guiding the establishment of evidence with the help of a conceptual framework. The deductive approach permits a structural approach (Saunders et al., 2012) and falls in line with the present investigation.

The design of the present investigation is predominantly quantitative in nature. Aside from the assertions that the quantitative method is in congruence with the positivist ontological stance and the deductive reasoning to research, this design is justified based on the underlying beliefs for objectiveness. The quantitative approach is again justified as it helps collect core and structural data towards answering the set
research questions (Hair et al, 2003; Creswell 2009). Ultimately, the quantitative approach is more concerned for generalizability and representativeness which are considered as part of the need for objectivity and credibility in empirical assessment.

3.4 Population of the Study
A headcount of all employees under ADNOC reveals a total of 55,000 as reported by Reuters (2016) as at May 2016. This population of employees are however spread across the GCC and UAE. Considering this population size, the present study adopts the appropriate sampling technique and sampling size to arrive at most authentic and reputable sampling approach for the present investigation.

3.5 Sampling Size and Technique
The sampling design may be mainly either probability sampling or non-probability sampling. Of which, the non-probability sampling emphasizes that the elements in the population do not have an opportunity or probability of being selected as a subject in the sample whereas, in the probability sampling, the elements have an opportunity or probability of being selected as a subject in the sample (Sekaran & Bougie, 2014). In an attempt to ensure generalizability of findings to the population of ADNOC, the adequacy of sample is critical. Adoption of the appropriate sampling technique also ensures a representative sample to the defined population.

3.6 Sample Size
The sample size is influenced by the number of factors such as the purpose of the study (Kelso, 2008; Sekaran & Bougie, 2014), size of the population (Kelso, 2008; Chailee, 2008), non-responsive error, and accuracy of the study (Kelso, 2008; Sekaran & Bougie, 2014). According to Saunders et al., (2007), the population of between 10,000 and 100,000 would need a minimum sample of 383 to be generalizable at 95% confidence interval or 5% error margin. For the right sample size, it is important to factor in a response rate in order to give room for non-response error. The minimum sample size was however first adjusted to the exact population size using the following formula as provided by Saunders et al., (2007):

$$n_2 = n_1/\left(1 + \left(\frac{n_1}{\text{population}}\right)\right)$$

Here, $n_2$ is the adjusted sample size and $n_1$ is the minimum sample size of 383. Factoring the available minimum sample size and the actual population into the equation, the following is arrived:

$$n_2 = \frac{363}{1 + \left(\frac{383}{55,000}\right)}$$

$$n_2 = \frac{363}{1.00696}$$

$$n_2 = 360$$
A response rate of 80% is considered as the overall valid responses. This rate is factored into the main equation provided below to arrive at the actual sample size:

\[ n_3 = \frac{n_2 \times 100}{\text{re}\%} \]

Where, \( n_3 \) is the actual sample size considered for the present study and \( n_2 \) is the adjusted sample size estimated in the previous equation. The following is arrived:

\[ n_3 = \frac{360 \times 100}{80\%} \]

\[ n_3 = 450 \]

Using this sample size (n3=450) would ensure that more authoritative results are achieved. This actual sample size considers the possibility of non-response and is larger than the minimum sample size.

3.7 Sampling Technique

The sampling technique is critical so as to ensure representativeness of the sample to the population of interest. A sampling frame of all ADNOC employees in UAE is considered. Considering ADNOC is present in all the Emirates but Dubai, and is based in Abu Dhabi, a stratified proportional sampling technique is used. All employees in Abu Dhabi are considered in a single stratum whereas all other employees in the Northern Emirates are considered in a second stratum. The exact proportion of sample per strata was obtained prior to actual data collection. The proportions were obtained by requesting a list of all ADNOC employees in UAE region, the sampling frame.

3.8 Data Sources

Considering the primary and secondary sources of data known as the two main sources of data present for any investigation, the primary source of data is used to answer all research questions in the present investigation. Primary data is gathered in the direction of set hypotheses without reliance on data originally collected by someone else on a different set of independent research objectives. Saunders et al., (2007, p. 256) refer to secondary data as reanalysis of data that have already been collected for another purpose and this study does not consider such data.

Even though secondary data comes in handy, it may not fit the main purpose of the study since it was not collected with the main study in mind. Moreover, secondary data may be very difficult to access, aggregations and definitions may be unsuitable to the investigation, no control over data quality exists and other limitations exist. Using primary data may be time consuming but overcomes all of these limitations.
3.9 Data Collection Instrument and Measurement

A survey instrument is consisting of a set of questions, to which the respondents provide their answers and an efficient data gathering technique when the researcher knows precisely what is necessary (Sekaran, & Bougie, 2014). The questionnaire, is often called the survey instrument, can be placed in to three categories based on the nature of the administering, personally administered, mail and electronically administered questionnaires. Data is collected with the help of the survey questionnaire. Hence, the present study is to be used questionnaire rather than other two methods namely interviewing and observing People and phenomena, because of it descriptive in nature. Of which personally administered, and mail questionnaires are more appropriate for the present study where the nature of the respondents is concerned. The instrument was separated into three main sections; (1) situational factors and its antecedents, (2) leaders’ behaviour and its antecedents and (3) organizational performance. It may be noted that the exploratory section is section one of the questionnaire (Appendix C). The indicators and items for measurement of the variables are presented in Table 3.2, Table 3.3 and Table 3.4. All items on the questionnaire aside from demographics and leader behavioural orientation were measured with the five-point Likert Scale. Key demographic collected include age, gender, level of education and level of management.

3.10 Data Collection Administration

With a formal letter was submitted to ADNOC headquarters in Abu Dhabi to be granted access to required data in the organization. A copy of the approved letter was then attached to all the emails of selected respondents after a random selection has been done in the two main strata under consideration. It was important to ensure that the respondents selected from each stratum are proportional to the size of the strata in relation to the overall size of ADNOC employees in UAE.

The questionnaire was placed on Survey Monkey Online Data Collection Platform and sent to the participants for completion. The questionnaire was then delivered to the respondents or participants in the form of an email. The participants or respondents were required to read the information sheet in their respective emails and proceed to offer consent on the first page of the online questionnaire. After offering consent, the survey proceeds to the next sections.

A period of 8-10 weeks was allocated to data collection. After every two weeks, reminders were sent to the participants and this helped increase response rate. As discussed in the previous sections, a single questionnaire was used. Data from this questionnaire was used for both the exploratory and conclusive aspects of the study and proved quite lengthy. An attempt was made to reduce the number of questions asked in order to facilitate response.

3.11 Data Analysis

Factor analysis was used to analyse and arrive at key factors that determine the variables of leader member relations, task structures and leader positions in contemporary times.
of leadership administration. Factor analysis can either be exploratory (EFA) or confirmatory (CFA). Whereas the former has to do with the deducing of latent themes from a pool of indicators or variables, the latter has to do with the use of structural equation modelling to establish exploratory inter-relationships. It may be noted that the factor analysis in the present study is in an attempt to explore patterns (latent variables) among indicators. Factor analysis is therefore EFA and applies to the first research question of the study. This research question informs the research hypothesis and involves identification of key situational elements in the contingency model of leadership, as exists in contemporary leadership environments. The first, second, third and fourth research hypotheses were analysed with the help of regression analysis. These hypotheses sought the impact of key independent variables on other dependent variables; specifically, these hypotheses constitute the (1) the impact of leader’s internal environment on leadership behaviour, (2) the impact of leader’s external factors on the leadership situational scope, (3) the effect behaviour on organizational performance, and (4) what is the effect of contemporary leadership situational factors on organizational performance. In all these analyses, a single dependent variable was matched against a group of independent variables in a linear equation modelling where:

\[ y = b + a_1(x_1) + a_2(x_2) + a_3(x_3) + a_4(x_4) + \cdots + a_n(x_n) \]  

(1)

Here,
\[ y = \text{dependent variable,} \]
\[ a_1 \sim a_n = \text{the coefficient of the independent variables,} \]
\[ x_1 \sim x_n = \text{the independent variables,} \]
and \( c = \text{the y-intercept.} \)

Same form of analysis will be conducted for all research hypotheses.

4. Results and Analysis

The chapter presents the results of primary data collection. These results are analysed in this chapter towards achieving the study’s objectives. First, the demographics of respondents are presented, followed by a careful analysis of the data observations in order to remove all inconsistencies bias responses. Descriptive statistics are then presented to summarize all collected data, followed by critical reliability and data validity assessments. Main analyses in this chapter are done in the form of hypothesis testing in order to either accept or reject the established hypotheses of the study. Testing the hypotheses in this section also play a key part in answering the research questions of the study. All analytical methods used are mentioned in this chapter alongside their respective analyses.
4.1 Demographic Statistics

Key demographics are presented in Table 4.1. Out of the 382 valid responses, 223 (58.4%) were males and remaining 159 (41.6%) were females. Most of the participants belonged to the age range of 25 to 34; 106 respondents representing 27.7% of the total sample. About 23% of the sample (88 respondents) were aged between 35 to 44 years and this was closely followed by those aged between 15 to 24 years (21.2%) and 45 to 54 years (18.1%). In addition to this, 52% of the respondents had successfully completed University or first degree; this category numbered 200 out of the total of 382 respondents. High School and Diploma leavers formed 33% and a small percentage of respondents had post graduate degrees or above (14.7%).

In addition to these demographics, an unconscious attempt was made to ensure that the departments in the organization spread equally among the sample as observed in a simple random sampling attempt. the study considered two main strata of all employees in Abu Dhabi in a single stratum and the rest in the other Emirates in another stratum. This registered nearly equal proportions of respondents in the various levels of the organization as presented in Table 4.1. Most of the respondents were in the middle level of the organization (39.0%) followed by operational level employees (34.3%) and top management level employees (26.7%).

<table>
<thead>
<tr>
<th>Table 4.1: Summary of Demographic Statistics</th>
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<tr>
<td>Item</td>
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<td>Gender</td>
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4.2 Descriptive Statistics

The descriptive statistics of collected primary data are presented in this section. It must be noted that the minimum and maximum values of 1 and 5 respectively run through for all items as a five-point Likert Scale was used. The descriptive statistics presented in this section include mean, standard deviation and variance for all factors. The main factors in the research model are presented in the tables that follow. With regards to the leader’s internal environment, general characteristics of age and gender ranked higher than any of the hierarchy elements (Table 4.2). Scope of leaders was rated highest among the list...
of leadership attributes in ADNOC (mean = 373); role of leaders followed with a mean score of 3.71. Generally, overall leadership hierarchical structure (mean = 3.688) measured by level, role and scope was rated higher than leader characteristics measured age and gender (mean = 3.529). Leaders in ADNOC may be considered as generally aged and predominantly male. Leaders also have a high level of scope; that is a large size of subordinates reporting to a single leader. Leaders may also be observed as exercising supervisory role as part of their duties.

Table 4.2: Descriptive Statistics – Leader’s Internal Environment

<table>
<thead>
<tr>
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<th>Mean</th>
<th>SD</th>
<th>Var.</th>
<th>Skewness</th>
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<tbody>
<tr>
<td>Age</td>
<td>3.56</td>
<td>1.238</td>
<td>1.533</td>
<td>-.616</td>
</tr>
<tr>
<td>Gender</td>
<td>3.49</td>
<td>1.194</td>
<td>1.426</td>
<td>-.619</td>
</tr>
<tr>
<td><strong>Leader Characteristics (mean = 3.529)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level</td>
<td>3.63</td>
<td>1.135</td>
<td>1.288</td>
<td>-.707</td>
</tr>
<tr>
<td>Role</td>
<td>3.71</td>
<td>1.088</td>
<td>1.184</td>
<td>-.761</td>
</tr>
<tr>
<td>Scope</td>
<td>3.73</td>
<td>1.106</td>
<td>1.223</td>
<td>-.692</td>
</tr>
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</table>

**Leader Hierarchy (mean = 3.688)**

Note: n = 382, Std. Error = .125

For indicators within the leader’s external environment, three main sub-variables or sub-constructs are identified; subordinates’ characteristics (mean = 3.43), group factors (mean = 3.804) and organizational factors (mean = 3.80). The highest external factor may be considered in the category of group factors, followed by organizational factors and individual subordinate factors. On the specific indicators goal emphasis ranked highest followed by communication flow indicators within the organizational environment.

4.3 Data Reliability

The data was tested for reliability. Cronbach Alpha was used as a test for internal consistency. Reliability results are presented in Table 4.5. All reliability statistics were above .5 even though an alpha value greater than .5 and less than .6 may be considered a poor internal consistency (George & Mallery, 2003). Even though generally results of internal consistency may be considered acceptable but poor, alpha value above .7 may be considered more acceptable. Some of the constructs and sub-constructs had mixed results. Leader’s internal environment for instance had an overall poor level of internal consistency even though the individual groups of leader’s characteristics and leader hierarchy had alpha values above .8. Analysis of these may therefore be considered under separate multiple regression models in the subsequent sections.
Table 4.3: Reliability Statistics

<table>
<thead>
<tr>
<th>Construct</th>
<th>Sub-Construct</th>
<th>n</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaders’ Internal Environment (.652)</td>
<td>Leader Characteristics</td>
<td>2</td>
<td>0.837</td>
</tr>
<tr>
<td></td>
<td>Leader Hierarchy</td>
<td>3</td>
<td>0.886</td>
</tr>
<tr>
<td>Leaders Behaviour</td>
<td></td>
<td>5</td>
<td>0.759</td>
</tr>
<tr>
<td>Organizational Performance</td>
<td></td>
<td>4</td>
<td>0.849</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

4.4 Exploratory Factor Analysis (EFA)

Exploratory Factor Analysis (EFA) explores the possible underlying factor structure of a set of variables without foisting a predetermined structure on the outcome (Child, 1990). In Exploratory Factor Analysis (EFA), there are few steps to be looked into. Firstly, the variables to be investigated has to be identified which has been done in Chapter 2. Extensive and in depth review of literatures by previous scholars worldwide has been done. The variables involved this study is implored both in Chapter 2 and Chapter 3. Simultaneously, descriptive information of the data collected is to be extracted, which should be more detailed. The Univariate descriptive, Initial solution, Coefficient R-matrix, Significance levels, Determinant Test for multicollinearity or singularity, KMO and Bartlett’s tests, inverse of the correlation matrix, model’s Correlation matrix and Anti-image of the covariance and correlation is calculated.

To test this assertion, the pool of indicators in the leadership situational scope was explored for key patterns. First, KMO and Bartlett’s Test for adequacy was observed as statistically significant (Table 4.4).

Table 4.4: Hypothesis 1: KMO and Bartlett’s Test

<table>
<thead>
<tr>
<th>KMO and Bartlett’s Test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
<td>0.802</td>
</tr>
<tr>
<td>Bartlett’s Test of Sphericity</td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>1465.852</td>
</tr>
<tr>
<td>Df</td>
<td>105</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000*</td>
</tr>
</tbody>
</table>

Note: * Significant at 0.01 significance level.

Hypothesis 1: Effect of leader’s internal environment on leader’s behaviour

The first hypothesis sought to observe the impact of leader’s internal environment on leadership behaviour:

H1: Leader’s internal environment has a significant effect on leadership behaviour.

To test this hypothesis, the multiple regression analysis function of IBM SPSS Statistic was employed.

The results for the first hypothesis are presented in Table 4.9. The model summary reveals a very low R-squared statistic ($R^2 = .014$): this may be considered quite low to accept that the independent variables in the multiple regression equation model accounts or explains any variance in the dependent variable. It may however be observed that leader characteristics has a slightly significant negative effect on leadership behaviour (p
< .1) even though the overall model cannot be substantiated (Table 4.9, Table 4.10 and Table 4.11).

Ultimately, as gender and age are increasingly perceived as significant elements for effective leadership, this has an overall negative impact on leadership behaviour measured with the help of the LPC model. As observed, this result is however very low, and the first hypothesis may be rejected to a large extent whilst reserving some salience for the sub-construct of leader characteristics as this was significant at p < .1. The hypothesis asserted that:

**H1:** Leader’s internal environment has an insignificant effect on leadership behaviour.

Results pertaining to this hypothesis and key constructs in the multiple regression model are presented in Table 4.9, Table 4.10 and Table 4.11.

### Table 4.9: Hypothesis 1: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.117a</td>
<td>.014</td>
<td>.008</td>
<td>.87025</td>
</tr>
</tbody>
</table>

**Note:** a. Predictors: (Constant), Leader Characteristics and Leader Hierarchical Position.

### Table 4.10: Hypothesis 1: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>3.954</td>
<td>2</td>
<td>1.977</td>
<td>2.610</td>
</tr>
<tr>
<td>Residual</td>
<td>287.033</td>
<td>379</td>
<td>.757</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>290.987</td>
<td>381</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** a. Dependent Variable: Leadership Behaviour. b. Predictors: (Constant), Leader Characteristics and Leader Hierarchical Position.

### Table 4.11: Hypothesis 1: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Std. Coeff.</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>3.938</td>
<td>.222</td>
<td>17.778</td>
</tr>
<tr>
<td>Leader Char.</td>
<td>-.076</td>
<td>.040</td>
<td>-.098</td>
<td>-1.928</td>
</tr>
<tr>
<td>Leader Hierarchy</td>
<td>-.056</td>
<td>.045</td>
<td>-.064</td>
<td>-1.254</td>
</tr>
</tbody>
</table>

**Note:** a. Dependent Variable: Leadership Behaviour. b. Predictors: (Constant), Leader Characteristics and Leader Hierarchical Position.

### Hypothesis 2: Effect of Leaders Behaviour on Organizational Performance

The third hypothesis sought to examine the effect of leaders’ behaviour on organizational performance. The main hypothesis stated that:

**H2:** Leaders behaviours have a significant impact on organizational performance. Main independent variables include; leader-member relationship, task structures, and leader position power, as independent variables. Results for these predictors of organizational performance are presented in Table 21, Table 22, Table 23.
Table 21: Hypothesis 3: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.147\textsuperscript{a}</td>
<td>.021</td>
<td>.014</td>
<td>1.01192</td>
</tr>
</tbody>
</table>

Note: a. Predictors: (Constant), Leader Position Power, Leader Member Relationship, Task Structures

Table 22: Hypothesis 3: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>\textsuperscript{b}</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>3</td>
<td>2.832</td>
<td>2.766</td>
<td>.042 \textsuperscript{a}</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>378</td>
<td>1.024</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>395.565</td>
<td>381</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: a. Dependent Variable: Organizational Performance, b. Predictors: (Constant), Leader Position Power, Leader-Member Relationship, and Task Structures. Significant at p < 0.05.

Table 23: Hypothesis 3: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Std Coeff.</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>4.061</td>
<td>.491</td>
<td>8.276</td>
<td>.000</td>
</tr>
<tr>
<td>Leader-Member Relationship</td>
<td>-.215</td>
<td>.081</td>
<td>-.138</td>
<td>-2.668</td>
</tr>
<tr>
<td>Task Structures</td>
<td>.029</td>
<td>.088</td>
<td>.017</td>
<td>.327</td>
</tr>
<tr>
<td>Leader Position Power</td>
<td>.061</td>
<td>.062</td>
<td>.050</td>
<td>.980</td>
</tr>
</tbody>
</table>

Note: a. Dependent Variable: Organizational Performance. * Significant at p < 0.01 significance level.

Observation of model summary in Table 21 shows that a rather low R-Squared Statistics were obtained. ANOVA results for this statistic was significant at p < 0.05. Of all the situational elements considered, leader-member relationship proved statistically significant as a predictor of organizational performance, with a negative Beta value of - .138 (p < .01). These results indicate that the third hypothesis is accepted for the main variable of leader-member relationship as a good but negative predictor of organizational performance.

Table 24: Summary of the Hypotheses

<table>
<thead>
<tr>
<th>H(x)</th>
<th>Hypothesis</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>H\textsubscript{1}</td>
<td>Leader's internal environment has a significant effect on leadership behaviour.</td>
<td>Rejected</td>
</tr>
<tr>
<td>H\textsubscript{2}</td>
<td>Leadership behaviour has a significant effect on organizational performance.</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

5. Discussion, Recommendations and Conclusion

5.1 Discussion

Generally, participants of the study were highly cooperative and responsive. This helped achieve a higher than the minimum sample requirement. The use of constructs like age, gender, role and scope as leader’s internal environment on the Likert Scale proved somehow challenging to grasp considering these items are predominantly measured in categorical formats and not on the Likert scale. Regardless of these main issues in measuring predominantly demographic variables in continuous formats, main questions
on these areas of leadership internal and leadership external environment principally sought to measure the extent to which age, scope and other qualities are of high levels in ADNOC. With regards to gender, “female-male” was noted as two ends of the Likert Scale. An instance is that a negative predictive effect of gender on performance would imply that women have a higher chance of achieving higher performance. All questions were aimed at the extent to which the indicators are applicable or existent in ADNOC.

The descriptive statistics indicate a high score for age and gender for both leaders and followers with not much of an observed difference as presented in Table 4.2 and Table 4.3. The scope of leadership presented in Table 4.2 (3.73) may be compared with the size of followers in Table 4.3 (3.63) with .1 differences between the scores. Viscidity, homogeneity and flexibility of subordinates were equally high in ADNOC as attributable to subordinate group factors. Organizational factors also remained relatively high in ADNOC. Generally, leadership behaviour were predominantly above average scores; above average scores are attributable to relationship orientated leadership trait and below average scores are attributable to task oriented leadership as pertains to the LPC methodology (Fiedler, 1967; Vroom & Jago, 2007). Finally, performance measurement observed generally above average scores for all the four indicators used to measure performance. Based on these observations key hypotheses were tested. It may be simply mentioned that the various hypotheses mostly proved insignificant; nonetheless, key implications may be discussed.

Results indicated that the observed covariance matrices of the dependent variables are equal across groups. In addition, the error variance of the dependent variable was also observed as equal across groups and largely insignificant. Besides, leader-member relationship, task structures and leader position power do not moderate or affect the extent to which leader’s behaviour can affect performance. It was already observed that leader’s behaviour had no significant predictive effect on performance and the test for moderation was critical to observe whether behaviour becomes a significant predictor when moderated through leadership situational scope. The test for moderation was however insignificant for all such relationships and little inferences and implications could be established.

5.2 Practical Implications and Findings
The need for effective leadership development has remained central to the desire to achieve competitive advantage (Caligiuri & Tarque, 2012; Wallis & McLoughlin, 2007). The case of ADNOC was highlighted at the onset of the present study as important context within which the study was conducted. This context was considered as essential for the study as the country and ADNOC, in the not-so-distant past, suffered from the decline in global oil market prices (Khamis et al., 2010). Reduction in market prices followed one of the greatest global economic recessions and the UAE, KSA and surrounding countries have had to re-strategize institutions like ADNOC to operate successfully (McDonald 2016; Raval, 2016).
Drawing into salience the need for effective institutional leadership effectiveness in the oil sector, the need to manage effectively in an age of sustained and not-so-attractive low oil and gas market, the need for radical measures and sustainable institutional considerations in the oil sector has been highlighted by Mills (2016) and Al Hilal Publishing & Marketing Group (2016). As part of the practical rational of focusing on ADNOC as a main case study of the present study was to validate and empirically establish a leadership effectiveness model for private and public institutions in the region. Important but few practical implications may be highlighted considering most of the relationships in the research model were not significant. Generally, two main areas may be highlighted. ADNOC must note that as employees’ age, this puts a stain on leader-member relationships. Moreover, female may be more responsible at managing leader-follower relationships than their male counterparts. In addition, leader-member relationship may be considered a negative predictor of performance. Ultimately, the composite score of perceived similarity, self-promotion, assertiveness, leader trust and inclusiveness were observed as a negative predictor of performance in ADNOC. These elements would rather be considered more rational considering a positive association exists with performance. Nonetheless, further insight may be required to better understand this inter-relationship between leader-member relationships and organizational performance in ADNOC. Further investigation into ADNOC may explain these inconsistencies and recommend avenues for improvement and alignment of leader-member relationships.

5.3 Recommendations to Future Researchers
The present study has immense theoretical significance. From the two main research gaps to the validation of the contingency model of effective leadership, further recommendations may be proposed for future research activities. Mainly, the present study observed many insignificant relationships pertaining to the data gathered from ADNOC. It is recommended that future researchers consider a more general sample that involves multiple institutions and does not consider participants from only a single institution. Diversity in participants may support evidence of these inter-relationships and such findings may be considered more authoritative in nature due to a large or broad sample base.

Based on the findings of the present study, key recommendations may be offered to ADNOC and other public and private institutions in the UAE and surrounding regions. It is recommended that ADNOC and other organizations in the region pay attention to the inverse relationship between age, gender and leader-subordinate relationship. Ultimately, in no attempt to discriminate against older employees, these organizations must employ training sessions and other employee development programs to reduce the negative effects of age in leader-follower relationships.
6. Conclusion

The conclusions are presented in order of the main research objectives. For the first research objective sought to observe the impact of leader’s internal environment on leadership behaviour. It is concluded that neither leader characteristics nor leader hierarchy determines leadership behaviour. The age, gender, number of people managed, and hierarchical structure of the leader does not determine whether the leader would adopt a task-oriented behaviour or a relationship-oriented behaviour. Task and relationship behaviour do not depend on the leader’s age, gender or any element within the leader’s internal or immediate environment.

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TOWARD ORGANIZATIONAL PERFORMANCE AT ABU DHABI NATIONAL
OIL COMPANY (ADNOC) IN THE UNITED ARAB EMIRATES (UAE)