The role of leadership in improving the productivity of the organization through employees' performance: A case study of the oil and gas sectors

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ABSTRACT

Leadership is an integral part of the organization with a direct impact on organizational productivity and profit. The desirous leader is considered the one who can get the best from their employees to achieve the organizational goals. Thus, the appropriate leadership style, according to the needs of the organization, has a positive impact on organizational performance. This study was conducted with the aim of investigating the effects of transformational leadership on staff productivity. In this regard, data is collected from 638 participants using different means. The key parameters which are considered in this research are 360-degree scores, attendance, quality of work, and promoted score. The results revealed that in the oil and gas sector, the employees are quite optimistic about the leadership, and they believe that their immediate team leaders have a significant role in improving their performance.

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1. Introduction

The oil and gas industries are playing a vital role in boosting the economics of any country, and it will increase the country Gross Domestic Product, which consequently increases the life-style of the countries. At the same time, it will help the economics of the country to build the infrastructure of the nation in terms of building the hospitals, which can help in the health life of the people, building the school which can help the people in the education development, developing the government and private sectors which will help the nation in developing their countries. The government should ensure that geopolitical issues around the world will not impact the country's economy and development. To overcome these challenges, the right leadership style to be adapted in these companies who deal with oil and gas business, so they can set the mission and the challenges and do a shifting paradigm on the culture of the people by cascading the vision to practice action till the bottom level on an individual. This study was conducted to investigate the effects of transformational leadership on staff productivity.

At the same time, increasing the employees' performance and their productivity can boost the oil and gas business to sustain in the business in terms of profit and high company performance with surrounding challenges, as all of us are aware of how oil and gas are volatile in term of price changes. Thus, the government and oil and gas businesses must ensure the highest performance and productivity to gain the maximum profit. However, it is essential to find the right and optimum leadership style, which oil and gas CEO can manage the operating companies in ensuring with resources and expenses can enhance and increase the productivity of the company employees in the oil and gas industry. The recent practical approaches among most oil and gas business companies are focusing on utilizing the transformational leadership in these sectors.

The purpose of this research is to investigate the relationship between applying transformational leadership in the industrial and commercial organization “ADNOC” in UAE and find out its impact on employee productivity. Low performance has been observed by employees, which is witnessed from the yearly performance appraisal of individual employees and the company performance scorecard mixed-method multiple case studies with exploratory applying transformational leadership. The first phase is applied to the qualitative method to explore the related leadership style constructs through an in-depth interview with ADNOC leaders and management. The findings then used to
construct a questionnaire for qualitative data collection and analysis with the objective to verify and generalize the finding.

2. Literature review

Leadership is an integral aspect of overall organizational performance. The labor process theory identifies employees as the most instrumental elements of the organizational performance at large (Garg et al., 2020). However, the theory states that employees will always offer the required outcome if properly managed. This argument implies that leadership is charged with the responsibility of ensuring that labor functions according to the required standards. Parker (2005) and Smith and Pourdehnad (2018) defined leadership as the process by which executives influence the behaviors and activities of other people to enable organizations to accomplish given goals, in particular, situations (Parker, 2005; Smith and Pourdehnad, 2018).

It refers to the ability of managers to influence their followers in such a way that enables them the ability to work with high levels of confidence and zeal (Parker, 2005). As a result of the part that's played by pioneers, they are always required to start by creating dreams toward which the realization of objectives is arranged. This step should then be proceeded with the motivation of all staff members to ensure that they operate, behave, and perform in ways that are supportive of the stated vision (Parker, 2005; Smith and Pourdehnad, 2018). Since leadership involves the direct influence of employees, which form a fundamental factor of production, it is evident that the style of leadership that is employed in an organization will always affect not only the operations of employees but also the performances of organizations at large.

The concept of leadership style, as highlighted above, is a critical determinant of the potential for success in any organization (Smith and Pourdehnad, 2018). The most common leadership styles are transformational, autocratic, situational, democratic, and participative, among other styles (Smith and Pourdehnad, 2018). Even though relatively unique characteristics characterize each of these styles of leadership. Some of them share certain traits that make them similar in different ways.

Performance management is an ongoing and joint process where the employee, with the support from a business organization, struggles to improve the employee's performance and therefore contributes to the achievement of an organization's broader objectives (Tandoh, 2011). A successful performance management system is one, which requires the full participation of employees and managers through effective communication and goal sharing. It is a medium for employees and leaders to develop an understanding of the mission of the organization, how to achieve it, and to what extent it has been achieved.

There are some barriers that may affect the employee’s performance, notwithstanding having the motivation to perform. These are unflaged competencies and capabilities, inapplicable performance goals, and lack of feedback regarding performance (Hofstede, 2001). Employees are of vital importance in the achievement of organizational goals. Effective leadership ensures more massive of the employees in understanding the objectives of the business organization. To have an active organization, the people within the organization needs to be inspired to invest himself or herself in the organization's mission. The employees need to be encouraged to become effective, and therefore effective organization needs effective leadership: a business environment, moving technology, regulation, and employee’s attitude. Leadership is the most critical for business organizations to achieve (Theisohn and Lopes, 2013).

To develop a successful leader, one has to:

- Be loyal to the business organization and taking full responsibility.
- Be honest and knowledgeable.
- Distinguish the character strength and weaknesses.
- Distinguish the human environment.
- Distinguish the profession and the organization.
- Provide direction by goal setting, problem-solving, decision making.
- Communicating, organizing, supervising, and evaluating.
- Develop the morale by training, coaching, and counseling.

The successful leader encourages each member of the team to contribute and achieve his/her full capacity and capability.

The most desired type of team leader is that they form a strong and appealing team. Other types of leadership are suitable for different situations and circumstances. For instance, the impoverished leadership style will be better if the moral of the team is down, and it needs to understand its self-reliance. Authoritarian leadership will be suitable for maintaining and preserving the correction and discipline and for handling the crisis situation. A successful leader has to assess the situation and uses the most suitable type of leadership style (Brower and Balch, 2005).

Due to extraordinary deviations in the business environment, an essential element for a new leadership style is an experience that is less bureaucratic and more democratic, who can apply and develop all the resources, especially human resources, to its maximum (Berry, 2010). Most organization's crimes were coming from authorized employees such as Steal data, fraud, and money laundering, and so on. Several works have been proposed to reveal the employees’ crimes in the literature (Ali et al., 2017b; 2017a; 2015; Al-Dhaqm et al., 2014; 2016; 2017b; 2017a; 2018; Aldhaqm et al., 2015; Ngadi et al., 2012).
3. Research methodology and design

The methodology is a vital component of the study design that helps the research to access and analyze the information required to answer the study questions in a study. It can be defined as the application of the philosophical framework in research, which can be perceived as the foundation on which a study is based (O’Leary, 2004). A typical research methodology highlights the methods and approaches used to obtain the data used in a particular study (O’Leary, 2004). It proceeds to break down the selected methodology by mentioning the philosophical frameworks that are used to implement it (O’Leary, 2004). Overall, research methodology mainly offers additional descriptions of the study design.

Data collection was attained using three different methods, which are interviews, case studies, and surveys. The case studies were conducted on the Saudi Arabian Oil Company (ARAMCO) and Abu Dhabi National Oil Company (ADNOC). The relevant information was gathered from the institutions’ annual reports and existing literature on the topics of interest. Interviews were conducted on employees and various administrators from Abu Dhabi Oil Refining Company, Partex Oil and Gas Group, Abu Dhabi National Oil Company, YAS Oilfield Services National Holding, and Al-Mojil Company (NHM), and Emdad Services LLC. On the other hand, surveys were conducted on the same organizations from which the interviews were done. The interviews were structured and contained questions related to the selected themes of this study, which are the core metrics of staff productivity. Interviews were conducted using phones, Skype, and face-to-face meetings. On the other hand, questionnaires were sent to selected organizations, which were expected to fill the stated questions within a period of one week. The interview data were analyzed using NVivo and manual coding to make the results more presentable. On the other hand, the survey data was analyzed quantitatively using E-views software. The explanatory and the test of statistical significance philosophies were used for the qualitative and quantitative data, respectively. Permission was obtained from the administrations of the studied organizations before the commencement of any studies.

4. Results and discussion

This section presents the results based on the data collected from 638 respondents from the organization. The data was collected about the organization to review different dimensions. These include a) 360-degree score, b) attendance, c) quality of work, and d) promoter score. The descriptive statistics and correlation analysis were conducted, and then the responses of the respondents were evaluated. The conclusion is provided based on the responses.

4.1. Descriptive statistics

The data corresponding to 360-degree scores was characterized by a mean of 62.8% and a standard deviation of 15.2873. These numbers imply that the average 360-degree score among the tested departments in the selected organizations was 62.8%, while the high standard deviation implies that most of the data points describing this variable were widely spread away from the mean. High attendance rates (99.1% on average) were discovered from most departments in the studied organizations. However, this set of data was characterized by a low standard deviation of 0.4183, an implication that most data points, in this case, were concentrated around the mean value. The means reveal slightly above average scores, while the high standard deviations reveal that the data points in each case were spread away from the individual means. Tables 1-4 show the descriptive statistics for each variable.

| Table 1: The descriptive statistics for 360-Degree test scores data |
|---------------------|---------------------|
| # OF DEPARTMENTS USING TL | AVG. 360 DEGREE SCORE |
| Mean | 4.000000 | 62.800000 |
| Median | 4.000000 | 58.000000 |
| Maximum | 7.000000 | 82.000000 |
| Minimum | 1.000000 | 45.000000 |
| Std. Dev. | 2.594510 | 15.28725 |
| Skewness | 0.000000 | 0.192611 |
| Kurtosis | 1.434911 | 1.516072 |
| Jarque-Bera Probability | 0.510313 | 0.498675 |
| Probability | 0.774795 | 0.782832 |
| Sum | 20.000000 | 314.00000 |
| Sum Sq. Dev. | 26.000000 | 934.80000 |
| Observations | 5 | 5 |

| Table 2: The descriptive statistics for employee attendance data |
|---------------------|---------------------|
| # OF DEPARTMENT USING TL | ATTENDANCE |
| Mean | 4.000000 | 99.100000 |
| Median | 4.000000 | 99.000000 |
| Maximum | 7.000000 | 99.500000 |
| Minimum | 1.000000 | 96.500000 |
| Std. Dev. | 2.594510 | 0.418330 |
| Skewness | 0.000000 | -0.346322 |
| Kurtosis | 1.434911 | 1.846939 |
| Jarque-Bera Probability | 0.510313 | 0.375386 |
| Probability | 0.774795 | 0.628869 |
| Sum | 20.000000 | 495.50000 |
| Sum Sq. Dev. | 26.000000 | 7.000000 |
| Observations | 5 | 5 |

| Table 3: The descriptive statistics for the quality of work data |
|---------------------|---------------------|
| # OF DEPARTMENTS USING TL | AVG. QoW |
| Mean | 4.000000 | 6.800000 |
| Median | 4.000000 | 7.000000 |
| Minimum | 7.000000 | 9.000000 |
| Maximum | 1.000000 | 4.000000 |
| Std. Dev. | 2.594510 | 2.280351 |
| Skewness | 0.000000 | -0.052744 |
| Kurtosis | 1.434911 | 1.373151 |
| Jarque-Bera Probability | 0.510313 | 0.570825 |
| Probability | 0.774795 | 0.751794 |
| Sum | 20.000000 | 34.000000 |
| Sum Sq. Dev. | 26.000000 | 20.800000 |
| Observations | 5 | 5 |
4.2. Correlation analysis

To assess the relationships among the variables, the relationship test was performed on the datasets, speaking to each of the examined factors. The nature of the relationship was decided not as it were by the greatness of the relationship coefficients gotten but too by the sign that goes before each of such values. The 360-degree scores, attendance, quality of work, and promoted scores were characterized by correlation coefficients of 0.9814, 0.5860, 0.9890, and 0.9471. These values indicate that a positive correlation characterizes each of the stated variables. They also suggest that 360-degree scores, attendance, quality of work, and promoted scores always increase with an increase in the number of departments that employ transformational leadership. The magnitudes of the numbers also tell a lot of information regarding the strengths of such correlations. For instance, the data shows that 360-degree scores, quality of work, and promoted scores that have the highest positive correlation coefficients, are the performance metrics that are mostly affected by transformational leadership in an organization.

On the other hand, employee attendance, which has a correlation coefficient of 0.5860, has the weakest responsiveness to changes in the form of leadership in an organization. As highlighted by interviewer 7, “attendance is a concept that cannot be controlled by anything other than the management saying that you either be present at work or face the consequences involved. This is my main reason for the excellent attendance record.” This argument implies that the overall attendance of employees in organizations depends more on other factors like the company policy than the style of leadership. The correlation test results were shown in Tables 5-8.

Table 4: The descriptive statistics for the promoter score data

| # OF DEPARTMENTS USING TL | AVG. PROMOTER SCORE |
|---------------------------|---------------------|
| Mean                      | 4.000000            |
| Median                    | 4.000000            |
| Maximum                   | 7.000000            |
| Minimum                   | 1.000000            |
| Std. Dev.                 | 2.549510            |
| Skewness                  | 0.000000            |
| Kurtosis                  | 1.439411            |
| Jarque-Bera               | 0.510313            |
| Probability               | 0.774795            |
| Sum                       | 20.000000           |
| Sum Sq. Dev.              | 26.000000           |
| Observations              | 5                   |

Table 5: The correlation test results for 360-Degree score data

| # OF DEPARTMENT USING TL | AVG. 360-DEGREE SCORE |
|--------------------------|------------------------|
| 1.000000                 | 0.981399               |

Table 6: The correlation test results for employee attendance data

| # OF DEPARTMENTS USING TL | ATTENDANCE |
|---------------------------|------------|
| 1.000000                  | 0.586009   |

Table 7: The correlation test results for quality of work test data

| # OF DEPARTMENT USING TL | AVG. QOW   |
|--------------------------|------------|
| 1.000000                 | 0.989030   |

Table 8: The correlation test results for promoter score data

| # OF DEPARTMENTS USING TL | AVG. PROMOTER SCORE |
|---------------------------|---------------------|
| 1.000000                 | 0.947078            |

4.3. Discussion

This section provides the analysis of data collected using a questionnaire. The question wise analysis is presented here, and the collective conclusion is provided in the following section.

Fig. 1 highlights that the organization is primarily man dominated, where female participation is only 5%. It shows that there is a significant lack of gender equality in the oil and gas sector. It needs considerable effort from all stakeholders to ensure gender equality in this sector.

Fig. 1: Gender distribution of sample size

The participant was also asked about the marital status, and 90 percent of the participant working in the oil and gas sector are married while only 10 percent are single. Fig. 2 presented the marital status of the employees.

The educational analysis revealed the 82 percent of the employees are having a master or higher qualification, while 12 percent have a technical education. However, there is 8 percent of employees with high school education. The details are shown in Fig. 3.
There is still a high number of other nationality employees are running the business. Only 24 percent of local is working in the oil and gas sector. During the data collection, 55 percent participant mentioned as non-emeriti and 21 percent mentioned as other nationalities. The partner got to center on the advancement of the neighborhood to prepare them for the work and diminish the unwavering quality of the other nationality. Fig. 4 presented the analysis of the national wise distribution.

The duration of the current job is entirely satisfactory, as more than 71 percent of the total participants are working in the same organization for more than 6 years. It reflects that job satisfaction is somehow high in organizations where they are working. Fig. 5 presents the duration of jobs in the same organization.

Similarly, the hopes of most employees are high form the organization. It is in support of Fig. 5. The hope is the key factor in retaining employees in the organization, and more than 92 percent of the employees are having positive hopes about the organization. Fig. 6 shows the results of the participants.

Despite the very few females in the organizations, it is very promising that 82.96 percent of employees believe that there is no gender biasness in their organization. About 12 percent' response was neutral, while three and a half percent are sure that they will be successful in their current organization. The higher percentage shows that employees are happy in their current jobs and their role in the organization while rare employees are not happy with their role and do not see any future success.

Fig. 2: Distribution of sample size based on marital status

Fig. 3: Education-wise breakdown of the sample size

Fig. 4: Nationality of the sample size

Fig. 5: Analysis of the duration of the job in the current organization

Fig. 6: Does the employee has positive hopes form the organization

Fig. 7: The employee is having positive hopes for his success in the same organization
of leader improves their performance, and they accept such leadership style. Less than 10 percent believe that other types of leadership may improve the performance of employees. Fig. 12 shows the results of the democratic leadership style and its acceptance in the employees.

Fig. 9 presents the details of the employees’ satisfaction in accordance with the organizational goals and self-achievement. It shows how much additional learning opportunities are available for the employees to boost their skills. More than 90 percent of employees are satisfied and recorded positive responses with either agree strongly or agree that they are satisfied. A very small sample is either neutral or not achieving their personal goals.

About 95 percent of employees believe that they are proud that they are performing well to the organization; about four percent are neutral. Fig. 10 shows the responses of the participants.

In addition to self-esteem, more than 95% of workers are happy that they perform their work in the best way possible and contribute to the company. A few percentages of the employees are not satisfied with their performance. The details of the respondent are highlighted in Fig. 11.

More than 55 percent of employees believe that a democratic style of leader is productive. While 32.75 percent of employees strongly agree that such type
organization, while there is 8.89 percent respondent who recorded their responses neutrally. Less than five percent of employees denied the existence of the teamwork in the organization.

**Fig. 14:** Leadership openness and acceptance of leadership change

| Strongly Agree | Agree | Neither Agree | Disagree | Strongly Disagree |
|----------------|-------|---------------|----------|-------------------|
| **0%**         | 10%   | 20%           | 30%      | 40%               |
| 50%            | 60%   | 70%           | 80%      | 90%               |
| **100%**       |       |               |          |                   |

**Fig. 15:** Loyalty with the organization

| Strongly Agree | Agree | Neither Agree | Disagree | Strongly Disagree |
|----------------|-------|---------------|----------|-------------------|
| **0%**         | 10%   | 20%           | 30%      | 40%               |
| 50%            | 60%   | 70%           | 80%      | 90%               |
| **100%**       |       |               |          |                   |

**Fig. 16:** Teamwork in the organization

5. Conclusion and future work

The evaluation of the results revealed that the employees' satisfaction ration is very high due to a number of reasons. The 360-degree score for most employees responds almost linearly positively to transformational leadership. Most employees who were interviewed for this particular topic revealed that they keep attendance, not because of the leadership style used by their organizations but because their respective institutions are strict on the idea of employee attendance. It also emerged that employees who are always assigned specific tasks will always ensure that they respect attendance policies even without management's interventions as they are always determined to meet their respective deadlines. Overall, the study indicates that most companies do not perform quality of work analysis as they use other methods of assessing employee performance. However, the ones that use this technique have noticed increasing trends after implementing transformational leadership. Promoter score is an unpopular performance metric in most departments except the marketing department, where it responds positively to transformational leadership.

**Compliance with ethical standards**

**Conflict of interest**

The authors declare that they have no conflict of interest.

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