The Relationship between Organizational Culture and Organizational Commitment in National Oil Corporation of Libya

Dr. Adel Mohamed Ali Shurbagi

Abstract—The purpose of the study was to investigate the relationship between organizational culture and organizational commitment in National Oil Corporation of Libya. This research was carried out by measuring the data gathered from the five point likert scale. The Organizational Culture Assessment Instrument (OCAI) was used to measure organizational culture, while the Three Components Organizational Commitment Questionnaire (TCOCQ) was used to measure the three dimensions of organizational commitment. Quantitative survey method was applied and a sample of 227 employees of National Oil Corporation of Libya was selected to answer the instrument. SPSS software was used to analyze the data collected based on descriptive statistics (mean, standard deviation, percentage, Correlation and Regression). The empirical results indicated that the relationship between organizational culture and organizational commitment in National Oil Corporation of Libya was positive significant relationship, while the dominant culture in NOC of Libya was Hierarchy culture and the dominant organizational commitment was Affective commitment.

Keywords—Organizational Culture, Organizational Commitment, National Oil Corporation of Libya

I. INTRODUCTION

NATIONAL Oil Corporation (NOC) of Libya was established 1970 and it dominates Libya’s oil industry, along with a number of smaller subsidiaries, which combined account for approximately half of the country’s oil output. National Oil Corporation carries out exploration and production operations through its own affiliated companies, or in participation with other companies under service contracts or any other kind of petroleum investment agreements. This is in addition to marketing operations for oil and gas, locally as well as abroad. NOC has fully owned companies which carry out explorations, developments and production operations, in addition to local and international marketing companies [1]. NOC of Libya is a state-owned company that controls Libya’s oil and gas production. The company is the biggest oil producer in Africa. Its mandate is to promote the Libyan economy by undertaking development, management and exploitation of oil resources as well as by participating in planning and executing the general oil policy of the state [2].

The choice of NOC of Libya to investigate the relationship between organizational culture and organizational commitment in NOC of Libya, because Libya is a member of organization of petroleum exporting countries (OPEC), this holds the largest proven oil reserves and the most important oil-producing countries in Africa and the world. The petroleum sector in Libya is very important because it is the backbone of Libyan economy.

II. PROBLEM STATEMENT

The petroleum sector is the most important sector in Libya. Libya is one of the most important oil-producing countries in Africa and in the world, and that the interest in this sector is very important. Therefore, the relationship between organizational culture and organizational commitment has attracted considerable interest from both academics and practitioners. Much of the interest on these variables is based on the results of the previous studies which have asserted that these concepts may have an impact on the organizations performance [3]-[4]-[5]. Furthermore, Yet no study has been conducted to investigate the relationship between organizational culture and organizational commitment in petroleum sector in petroleum sector. This study, therefore, is unique as it will help to fill this gap in an effort to improve the understanding this relationship in Middle East in general and in Libyan setting in particular. Based on the foregoing, the relationship between organizational culture and organizational commitment were not explored intensively enough in NOC of Libya.

III. RESEARCH OBJECTIVES

This paper has four objectives; The first aim is to determine the nature of the relationship between organizational culture and organizational commitment in NOC of Libya. The second aim is to determine the nature of the relationship between four types of organizational culture and three dimensions of organizational commitment in NOC of Libya. The third aim is to determine the dominant culture in NOC of Libya. The fourth aim is determine the dominant organizational commitment dimension in NOC of Libya. Based on the research objectives stated, the following research questions were addressed:

Q1. Is there any relationship between organizational culture and organizational commitment in NOC of Libya?
Q2. Is there any relationship between four types of organizational culture and three dimensions of organizational
commitment in NOC of Libya?
Q3. Which type of culture is dominating in NOC of Libya?
Q4. Which the component of organizational commitment is dominating in NOC of Libya?

IV. LITERATURE REVIEW

A. Organizational Culture
In fact, the roots of organizational or corporate culture began in the mid nineteenth century [6] were the first authors who mentioned the link between organizational culture and excellence in the late 1960s. However [7] pointed out that the concept of organizational culture has become a common parlance two decades after it was used by [6] as an aspect of the organization. Reference [8] defined organizational culture as a pattern of shared basic assumptions that the group has earned as it solved its problems of external adoption and internal integration that has worked well enough to be considered valid. Therefore, would be taught to the new members as the correct way to perceive, think and feel in relation to those problems. In this definition [8] also describes organizational culture as being deeper than behavior and artifacts.

B. Types Of Organizational Culture
According to [9]-[10] had introduced the Competing Values Framework (CVF), which identified four types of culture such as: clan, adhocracy, hierarchy and market culture. The theory of the Competing Values Framework (CVF) suggests two dimensions; the first dimension differentiates the effectiveness criteria that emphasize flexibility, discretion, and dynamism from the criteria that emphasize stability, order and control. The second dimension differentiates the effectiveness criteria that emphasize an internal orientation, integration and unity from the criteria that emphasize an external orientation, differentiation and rivalry. The Competing Values Framework (CVF) of [11] is very useful in organizing and interpreting a wide variety of organizational phenomena. Reference [12] from this theory, defined organizational culture as being taken for granted the values, underlying assumptions, expectations, collective memories and definitions present in organization. Each quadrant has been given a label to distinguish its most notable characteristics. Cameron and Quinn from this theory suggest four types of culture in organizations such as clan, adhocracy, hierarchy and market which illustrate in fig 1.

![The Competing Values Framework](http://dx.doi.org/10.15242/IIE.E0314572)

### Flexibility and Discretion

<table>
<thead>
<tr>
<th>Clan</th>
<th>Adhocracy</th>
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<tbody>
<tr>
<td>Hierarchy</td>
<td>Market</td>
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</table>

iii. Clan Culture
The term clan culture is used because of its similarity to a family-type organization. It seems more like extended families than economic entities. Instead of the rules and procedures of hierarchies or the competitive profit centers of markets, typical characteristics of clan-type firms were teamwork, employee involvement programs and corporate commitment to employees.

iv. Adhocracy Culture
A major goal of the adhocracy culture is to foster adaptability, flexibility, and creativity where uncertainty, ambiguity, and information overload are typical. The adhocracy organization may frequently be found in industries such as aerospace, software development, think-tank consulting, and film making. An important challenge for these organizations is to produce innovative products and services and to adapt quickly to new opportunities. Unlike markets or hierarchies, adhocracies do not have a centralized power or an authority relationship. Instead, power flows from individual to individual or from task team to task team, depending on what problem is being addressed at the time [12].

A. ORGANIZATIONAL COMMITMENT
The topic of organizational commitment has become immensely popular in the past two decades through interest of researchers and practitioners in the field of management [13]-[14]. Organizational commitment has been researched in various contexts; Including (a) Perceived Organizational
Support [15], (b) Performance Among Guest Workers [16], (c) Job Outcomes [17], (d) Trust, Innovative Behavior [18], (e) Organizational Culture and Leadership Style [19] and (f) Job Satisfaction [20]-[21]. Some of these studies pointed out that organizational commitment have a positive relationship with these variables.

**B. DEFINITION OF ORGANIZATIONAL COMMITMENT**

Organizational commitment, like most other concepts in social sciences, has no single or unique definition. It has been defined differently by different authors. For instance, reference [22] described ‘cohesion commitment’ as 'the attachment of an individual's fund of affectivity and emotion to the group'. While reference [23] conceptualized commitment as a partisan, affective attachment to the goals and values of the organization to one's role in relation to the goals and values, and to the organization for its own sake, apart from its purely instrumental worth. Reference [24] defined organizational commitment as the strength of an individual's identification with and involvement in a particular organization. Such commitment can generally be characterized by at least three factors:

a. A strong belief in and acceptance of the organization's goals and values.

b. A willingness to exert considerable effort on behalf of the organization.

c. A definite desire to maintain organizational membership.

Reference [25] defined commitment as the psychological attachment felt by the person for the organization, reflecting the degree to which the individual internalizes or adopts the characteristics or perspectives of the organization. Reference [26] from their view defined organizational commitment as ‘a bond or linking of the individual to the organization’. On the other hand, reference [27] Building to [24] definition has been divide the concept of organizational commitment into three components and defined organizational commitment in terms of affective, continuance, and normative.

Affective commitment refers to the employee’s emotional attachment to, identification with, and involvement in the organization.

Continuance commitment refers to an awareness of the costs associated with leaving the organization.

Normative commitment reflects a feeling of obligation to continue employment.

In reference [27] definitional approach, the three components of organizational commitment are components rather than types. Reference [27] noted the bases are conceptually mutually exclusive.

i. **Meyer and Allen Model (1991)**

The three components or dimensions of commitment was introduced by reference [27] this model was rooted in earlier approaches to organizational commitment which has been done by reference [28] -[24].

Reference [27] asserted that these three dimensions of commitment is a psychological state which describe as characterizes the employee’s relationship with the organization, and the implications for the decision to continue or discontinue membership in the organization. However, it is clear that the nature of the psychological states differ. These three dimensions are affective, continuance and normative describe as follow.

a. Affective commitment refers to the employee’s emotional attachment to, identification with, and involvement in the organization. Employees with a strong affective commitment continue employment with the organization because they want to do so [27]. The most important reason for wanting to remain with the organization is related to the ability of individuals to satisfy their needs at work [29]. Reference [30] have been suggested that the antecedents of affective attachment to the organization divide into four categories: personal characteristics, job characteristics, work experiences and structural characteristics.

b. Reference [27] proposed the continuance dimension as a better representation of Becker's side-bet approach. It refers to an awareness of the costs associated with leaving the organization. Employees whose primary link to the organization is based on continuance commitment remain because they need to do so. It is related to the benefits associated with staying versus the personal costs associated with leaving such as pensions, seniority, social status, and access to social networks that bind him or her to the organization. These interests would be at risk if the individual left the organization [31]-[32].

c. Normative commitment was defined as a feeling of obligation to continue employment. Employees with a high level of normative commitment feel that they ought to remain within the organization [30]. Individuals with high normative commitment stay in the organization because they believe it is the right and moral thing to do. Stated differently, they would feel guilty if they left the organization and stay, even if they had to reject better alternatives [33]. Normative commitment is affected in the main by socialization or culture prior to entry into an organization also would be influenced by the individual's experiences both prior to familial or cultural socialization and following organizational socialization entry into the organization [34]-[35].

The three dimensions were characterized as a “three component conceptualization of Organizational Commitment” and were described as components rather than types that is, employees can experience each of these psychological states to varying degrees [30]-[36]. Based to the literature the approach of [27] became the dominant one to the study of commitment [36]-[35].
V. RESEARCH HYPOTHESES

Based on the literature review, research questions and research objectives the hypotheses of the study are as follow:

H1. There is a relationship between organizational culture and organizational commitment in NOC of Libya.

H2. There is a relationship between four types of organizational culture and three components of organizational commitment in NOC of Libya.

H3. Dominant culture in NOC of Libya is (Clan, Adhocracy, Market and Hierarchy) culture.

H4. Dominant component of organizational commitment in NOC of Libya is (Affective, Continuance and Normative) commitment.

VI. RESEARCH METHODOLOGY

To gather research data in the current study, questionnaire is preferred due to its ability to collect data from respondents within a limited time frame. The instrument consisted three parts such as demographic variables, organizational culture and organizational commitment.

VII. INSTRUMENTS MEASUREMENT

Two instruments were used to measure the variables of the study. These instruments are as following:

1. The Organizational Culture Assessment Instrument (OCAI) developed by reference [12] as defined by the Competing Values Framework will be implemented in this study. The (OCAI) questionnaire was used to obtain an insight into the organizational culture based on the Organizational Culture Assessment Instrument (OCAI) which divided the organizational culture into four types namely, Clan, Adhocracy, Market and Hierarchy Culture. This survey instrument requires the sample to respond to six key dimensions. According to reference [12] the (OCAI) dimensions range from, dominant characteristics, organizational leadership, management of employees, organization glue, strategic emphasis and the criteria for success. Each of the six dimensions has four alternative answers which brings the total items of the (OCAI) questionnaire to 24 items. A Likert scale was used in which the respondents rate each alternative for each item on a scale from 1= strongly disagree; to 5=strongly agree.

2. Three Components Organizational Commitment Questionnaire (TCOCQ) developed by reference [30] instrument for the multidimensional organizational commitment was adopted for this study to measure organizational commitment. The instrument measures the three dimensions of organizational commitment includes items that measure affective, continuance and normative commitment. There are 24 items in the scale, each dimension of organizational commitment (affective, continuance and normative) has 8 items. A five-point Likert scale will be used with responses ranging from (1= strongly disagree) to (5= strongly agree). Therefore, the validity and reliability of The Organizational Culture Assessment Instrument (OCAI) and Three Components Organizational Commitment Questionnaire (TCOCQ) scales have been established through previous research the Cronbach's Alpha coefficient of the instruments were above 0.70 [37]-[38]-[20]-[39]-[21]. In the current study the Cronbach's Alpha coefficient of organizational culture and organizational commitment were 0.95 and 0.74 respectively.

VIII. PARTICIPANTS

To investigate the nature of the relationship between organizational culture and organizational commitment in NOC of Libya, out of (280) questionnaires were distributed with (250) returning. Of the (250) that returned, (23) questionnaires were rejected, due to insufficient data, resulting in (227) usable questionnaires yielding a response rate of 81%. The stratified sample sampling was used in this study and the sample size has been chosen according to the population of NOC of Libya and the percentage of the employees in each administrative level then the sample was selected randomly. The data were then analyzed using Statistical Package for Social Sciences (SPSS). Details are given in table I.I.

<table>
<thead>
<tr>
<th>Questionnaires distributed</th>
<th>Questionnaires returned</th>
<th>Questionnaires rejected</th>
<th>Questionnaires usable</th>
<th>Percent%</th>
</tr>
</thead>
<tbody>
<tr>
<td>280</td>
<td>250</td>
<td>23</td>
<td>227</td>
<td>81</td>
</tr>
</tbody>
</table>

IX. EMPIRICAL RESULTS

Data was analyzed through descriptive statistical methods with mean, standard deviation, percentage, Correlation Coefficient, and Regression. Table II.I contained profile of the respondents of the study. From the table II.I it was obvious that the respondents between 36-45 years constitute majority of respondents with 104 (45.8%) of the total of respondents while the least respondents with age range goes to those with less than 25 years 6 respondents (2.6%). As mentioned earlier, the respondents for this study are employees in NOC of Libya, the majority of respondents hold Master degrees 77 (33.9%), while 15 respondents (6.6%) completed their PhD degree. 158 (69.6%) of the respondents were married while only 69 respondents (30.4%) were single. From total of 227 respondents from (NOC) of Libya indicate that, 168 of them (74%) were male while the remaining was female. 89 respondents (39.2%), reported that their income was 1101-1500 DL monthly and only two respondents (0.9%) their salary was more than 2300 DL monthly. From table I.I it can be seen that 46 of respondents (20.3%) have working experiences with NOC of Libya for 1-5 years, only 25 of respondents (11.0%) have working experiences in NOC of Libya for 1-5 years. Finally, the majority of respondents with 130 (57.3%) of the total of respondents their boss's function was coordinator. This is followed by 63 respondents (27.8%) who their boss’s function was director. On the other hand, only 34 respondents (15%) their boss’s function was observer. All this information has given in Table I.I.
The most organizations take turns at different cultures. As they progress from the start in a clan culture, they then move to adhocracy culture, then to market culture and finally to the hierarchy culture after they have been established for some time [41]. NOC examined in this study was established in the early 1970s, which mean that they fit in the hierarchy culture at this point. On the other hand, according to previous table the means of affective commitment, continuance commitment and normative commitment were 2.93, 2.76 and 2.83 respectively, while the standard deviations of them were 0.83, 0.60 and 0.80 respectively. Therefore, as can be seen from Table III.I the participants of NOC have pointed out the dominant organizational commitment in the NOC was affective commitment. From discussion above and table III.I it could be concluded that the dominant culture in NOC is Hierarchy culture and also the dominant organizational commitment in the NOC is affective commitment. Table III.I summarizes the mean and standard deviation of these variables.

<table>
<thead>
<tr>
<th>Variables &amp; Dimensions</th>
<th>Number of items</th>
<th>Cronbach Alpha</th>
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</thead>
<tbody>
<tr>
<td>Clan Culture (CC)</td>
<td>6</td>
<td>0.897</td>
</tr>
<tr>
<td>Adhocracy Culture (AC)</td>
<td>6</td>
<td>0.855</td>
</tr>
<tr>
<td>Market Culture (MC)</td>
<td>6</td>
<td>0.856</td>
</tr>
<tr>
<td>Hierarchy Culture (HC)</td>
<td>6</td>
<td>0.840</td>
</tr>
<tr>
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<td>0.952</td>
</tr>
<tr>
<td>Affective Commitment (AC)</td>
<td>8</td>
<td>0.910</td>
</tr>
<tr>
<td>Continuance Commitment (CC)</td>
<td>8</td>
<td>0.719</td>
</tr>
<tr>
<td>Normative Commitment (NC)</td>
<td>8</td>
<td>0.913</td>
</tr>
<tr>
<td>Organizational Commitment (OC)</td>
<td>24</td>
<td>0.749</td>
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To study the correlation between variables, correlation coefficient was selected to investigate the relationship between these variables. Table V.I provided the findings of correlation between the variables of the current study such as organizational culture and organizational commitment which was 0.848. On the same line, based on the result of correlation the relationship between types of organizational culture and component of organizational commitment is positive and significant relationship at 0.01 level. Therefore, the highest correlation between types of organizational culture and component of organizational commitment was found between market culture (CC) and normative commitment (NC), \( r = 0.884 \) and the lowest correlation was found between adhocracy culture (AC) and affective commitment (AC), \( r = 0.472 \). Based on the results of the correlation between the

Table III.I provided the percentages, means, and standard deviations related to the perceptions of respondents of the NOC of Libya about organizational culture and organizational commitment in their organization. According to table 3.1 the means of clan, adhocracy, market and hierarchy culture were 2.88, 2.62, 2.85, and 3.03 respectively, while the standard deviations of them were 0.89, 0.72, 0.77 and 0.73 respectively. Therefore, as can be seen from Table III.I the participants of NOC have pointed out the dominant culture in the NOC was Hierarchy culture, this result consistent with previous studies by references [40]-[5]-[41] pointed out that the dominant culture in Petroleum sector in Libya was Hierarchy culture. The most organizations take turns at different cultures. As they progress from the start in a clan culture, they then move to adhocracy culture, then to market culture and finally to the hierarchy culture after they have been established for some time [41]. NOC examined in this study was established in the early 1970s, which mean that they fit in the hierarchy culture at this point. On the other hand, according to previous table the means of affective commitment, continuance commitment and normative commitment were 2.93, 2.76 and 2.83 respectively, while the standard deviations of them were 0.83, 0.60 and 0.80 respectively. Therefore, as can be seen from Table III.I the participants of NOC have pointed out the

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<td>Market Culture (MC)</td>
<td>6</td>
<td>0.856</td>
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variables of the study and their dimensions it could be concluded that the relationship between organizational culture and organizational commitment is significant positive relationship. These results are consistent with previous studies which carried out by reference [43] who concluded that the relationship between organizational culture and organizational commitment was positive and significant relationship. Table V.I summarizes the results of correlation.

TABLE V.I

<table>
<thead>
<tr>
<th>CORRELATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC</td>
</tr>
<tr>
<td>CC 1.000 0.830** 0.897** 0.826** 0.537&quot; 0.607** 0.880&quot;</td>
</tr>
<tr>
<td>AC 1.000 0.841&quot; 0.741&quot; 0.472&quot; 0.587&quot; 0.843&quot;</td>
</tr>
<tr>
<td>MC 1.000 0.824&quot; 0.480&quot; 0.615&quot; 0.884&quot;</td>
</tr>
<tr>
<td>HC 1.000 0.520&quot; 0.552&quot; 0.814&quot;</td>
</tr>
<tr>
<td>AC 1.000 0.429&quot; 0.443&quot;</td>
</tr>
<tr>
<td>CC 1.000 0.648&quot;</td>
</tr>
<tr>
<td>NC 1.000</td>
</tr>
</tbody>
</table>

X. HYPOTHESIS TESTING

To test the hypotheses of the study Regression Analysis was used. Regression analysis was used to test the model of the study. This model examines the relationship between organizational culture and organizational commitment. From table VI.I the result of linear regression indicates that (organizational culture) has contributed significantly in the variability of (organizational commitment) by 71% from the total variability. Regression coefficients were found to be significant for organizational culture and organizational commitment that could be confirmed by their respective t statistics and p-value. By looking at the beta coefficient for organizational commitment can determine the relationship between organizational culture and organizational commitment. The regression model implied in this study was found statistically significant (P-value < 0.05). Those findings could be suggested that the model was able to fit the data. On the other hand, from the result of regression analysis it could be concluded that the relationship between organizational culture and organizational commitment is a positive relationship Table VII.I summarizes the results of Regression Analysis.

TABLE VII.I

<table>
<thead>
<tr>
<th>REGRESSION ANALYSES</th>
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<tbody>
<tr>
<td>R</td>
</tr>
<tr>
<td>0.846</td>
</tr>
<tr>
<td>Unstandardized</td>
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<tr>
<td>B</td>
</tr>
<tr>
<td>Constant</td>
</tr>
<tr>
<td>OC</td>
</tr>
</tbody>
</table>

XI. CONCLUSION

The purpose of this study is to investigate the relationship between organizational culture and organizational commitment in National Oil Corporation of Libya. By using questionnaires, data was gathered from 227 employees of NOC of Libya. Data on the respondents’ organizational culture and organizational commitment were collected using The Organizational Culture Assessment Instrument (OCAI) developed by reference [12]. Three Components Organizational Commitment Questionnaire (TCOCQ) developed by reference [30] Descriptive statistics were reported, followed by mean, standard deviation, reliability analysis, correlation and hypotheses testing using Regression analysis. From the current study it could be concluded that the relationship between organizational culture and organizational commitment and between four types of organizational culture such as (Clan, Adhocracy, Market and Hierarchy culture), and three component of organizational commitment such as (affective, continuance and normative commitment), was positive and significant relationship while the dominant culture in NOC of Libya was Hierarchy culture and the dominant component of organizational commitment was Affective commitment.

REFERENCES


