The Impact of the Transformational Leadership in the Administrative Creativity: An Applicative Study on the Industrial Companies (Mining and Extraction)

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Abstract
The aim of this study was to identify the impact of transformational leadership in administrative creativity in industrial companies (Mining and Extraction). To find out these aims, a total number of 176 of employees who were of high and central management levels of industrial companies (Mining and Extraction) took part in this research. For the sake of data collection, a questionnaire was designed and then distributed to the study community. After obtaining the questionnaire, the answers for each question were entered to SPSS program for analysis. Main results produced by this study were as follows: According to the overall results, it could be noted that there was a presence of a statistically significant impact (0.05) of the transformational leadership pattern in administrative creativity in Industrial companies (Mining and Extraction). In light of the results, the study recommended a number of recommendations, namely: strengthening rely on transformational leadership style to increase the effectiveness of administrative.

Keywords: Transformational Leadership: Inspirational Motivation, Intellectual Stimulation, Individualized Consideration. Administrative creativity: Originality, Intellectual fluency, Flexibility of mind.

Theoretical background of the study
The entrance of transformational leadership is considered as one of the modern entrances of the managerial thought as it emerged in the late of the 1970s. It was initially introduced by "Burns" in his book "Leadership" in which he asserted that one of the most universal and urgent needs in the current time is represented by the extreme need for an effective and creative leadership that replaces the traditional style of leadership which depends on mutual interest. So, it is an unstable relationship and which rarely continuous for a long period of time. According to Burns, the process of leadership could take place in one of two ways; it could be either transformational or transactional (Hater & Bass, 1989).

WHO focused on the transformational leadership through which the leader is seeking to get to the implicit and explicit motives of the followers. The transformational leadership witnessed a noticeable advance through the contributions of bass who set the systematic theory of the transformational leadership (Larmore, 2000). He also set models and measurements in order to measure the factors of the leadership behavior which is called the multi factor leadership questionnaire that includes three factors for the transformational leadership; these are, the idealized influence, the intellectual stimulation, and the individualized consideration. Bass also added a fourth component which is called the inspirational motivation (Burns, 1978).

The transformational leader differs from the transactional leader as indicated by (bass and burns, 1985), as the transformational leader tries to increase and promote the demands of the followers in order to be consistent with the objectives and purposes of the leader himself. While the transactional leader focuses on the attempt of maintaining the current status by meeting the current psychological and financial needs of the follower. The factors of transformational leadership include:

- The charismatic leadership, which is considered as a central one for the transformational process which constitutes a high percentage of the common diversity in the ratios of transformational leadership (Bommer, & Baldwin, 2004). The followers want to be embodied within their charismatic leaders and they lay a great deal of confidence in the opinions and values that their leaders have. As a result, they create feelings and emotions toward him.

Bass Model for transformational leadership differs from the previous concepts about the charismatic
leadership, particularly in relation to two additional factors of leadership; the individual respect and the intellectual stimulation.

Transforming leaders could be characterized by its interest in the individual follower through tasks and participation in the interest of the follower and his development needs, as well as dealing individually with each follower. Additionally, the individualized respect represents an attempt by the leader, not only to recognize the current needs and achieve them to the followers, but also to arouse and promote these needs in an attempt to develop the followers more and more, (house, 1977).

(Kane & Tremble, 2000). states that transformational leadership means, the extent at which the transformational leader strives to promote the level of his follower in search for accomplishment and self-development as well as working on the development of the groups and the organization as a whole. Some researchers realize that transformational leadership is an interaction between leaders and followers, which, in turn, leads to an increase in motivation. It also promotes high levels of performance and surpasses the personal interest to the public interest (kark et al, 2003). According to the point of (Rafferty, & Griffin, 2004) transformational leadership means the leaders usage for the factor of charisma as well as the related personal traits in order to increase the aspirations and change the individuals and systems into a style that is characterized by its high levels of performance (Roger, T. A., 2001) views the transformational leadership as the kind of leadership that surpasses providing motives for a desired performance to encouraging and developing the follower creatively and intellectually as well as changing their self interests in order to be a fundamental part of the higher message of the organization confirms that the transformational leadership correlates positively with excellence in performance and job satisfaction of the followers, as most of the studies revealed that transformational leadership increases the levels of (Waldman, et al, 2001) organizational performance and the effective response to the resulting changes within the atmosphere of the organizations business as well as the continuous changes in the needs and passions of the workers and the customers of the organization; besides, increasing the level of workers confidence in the organization as well as installing the spirit of citizenship and affiliation.

It also enhances the necessary motivation in them in order to achieve the excellent performance (Leithwood, & Hallinger, 2003). States that transformational leadership has the role of developing the workers performance within the organization, improving their skills in a continuous manner, encouraging them for cooperative working, reading their professional isolation, supporting the cultural changes, setting the subjective criteria to measure performance, installing the professional culture and allowing the workers to provide creative solutions for the organizational problems as well as motivating them to start new activities and also additional efforts to achieve the objectives and the message of the organization.

Both (avolio & bass, 1994) classify the transformational leadership into four dimensions; these are:

The idealized influence: - it is the method through which leaders behave as if they are a model for the followers. The idealized influence is the leaders ability to examine and respect the needs of others as well as preferring the followers need to his own needs. The behavioral idealized influence is evident when the leader, himself, contacts directly with his followers in order to illustrate these values and beliefs which are considered as the most important. The importance of these values and beliefs is accompanied by the common assumption which is well-achieved by the mutual trust and cooperative effort (William & miller, 2002).

Inspirational motivation: it is the method through which the leader behave in order to motivate and inspire the followers by adding morale and challenge to these work.

This dimension describes how leaders transmit their high expectations about work performance to their followers through motivation in order to make them more committed and a part of the common vision of the organization. As for the applied aspect, the leaders use symbols and emotional attractiveness so as to unify the efforts of the group members to achieve a better job that surpasses their achievement which is associated to self-interests (northouse, 2007).

Intellectual stimulation: - it is a method through which the leader encourage his followers to be innovative and creative by challenging the traditional method by reformulating the problems and re-submitting the old situations in a new fashion.

The leader also uses intuition and logic in solving the problems. He also urges the followers and encourages them to look for new and creative ideas and resources in order to develop job performance within the organization as well as achieving its goals (bass and avolio, 2003, northouse, 2007).

Individualized consideration: it is a method that gives a particular Attention for satisfying the needs of each individual in order to achieve growth and performance. The leader also shows a significant interest in the followers concerns and needs by listening them pleasantly.

He gives a special Attention to the followers needs and tries to find compromise solutions between the organizations objectives and the followers objectives by adopting the strategies of praise and appreciation so as to attain the followers satisfaction which leads to more enthusiasm and orientation towards work in a positive spirit (Bass, & Steidlmeyer, 1999).
Administrative leaderships in the industrial companies often face challenge while making important decision in a daily basis. These administrative leadership shoulder the responsibilities that are related to the workers and the production processes. The industrial companies are considered as pioneer organization at both the local and global levels as they adopt the modern approaches and methods in order to achieve their objectives, and this demands that these companies have to keep up with the latest developments and to look for new creative methods as well as taking advantage of the qualified human resources and giving the opportunity for creativity. Therefore, there has been an increasing focus on studying the style of transformational leadership and the extent at which the creative capabilities exist.

The study problem:
Leadership is considered as the main motive and operator in the business organization as it has a significant role that ensures the continuation of its work through the well-known functions that leadership exhibits. Since the process of decision making is the essence of the transformational leadership, or as (Simon & Thompson, 1998), states: “decision making is the beating heart of the managerial process and as the Researchers feels that transformational leadership is the most adequate method for this stage due to its included tasks, characteristics and elements that enable the leader to manage change successfully in his organization and to change it to a new status that satisfies the emerging requirements and aspirations and respond to the contemporary and future challenges, this study was conducted to identify the impact of transformational leadership on the managerial creativity in the industrial companies (extracting and mining). Therefore, the study problem is represented by the following questions:

1- What is the impact of the style of the transformational leadership on the managerial creativity in the industrial companies (extracting and mining)?
2- What is the level of the works assessment (study sample) in the industrial companies to the style of transformational leadership (idealized influence, inspirational motivation, and individualized consideration) and the managerial creativity within its dimensions of (authenticity, intellectual freedom, and mental flexibility)?

Objectives of the study:
This study seeks to achieve the following objectives:
1. Identify the impact of transformational leadership style in the administrative creativity in industrial companies (Mining and Extraction).
2. Identify the level of evaluation of senior management and middle in industrial companies (Mining and Extraction) for the transformational leadership style.
3. Identify the level of evaluation of senior management and middle in industrial companies (Mining and Extraction) for the dimensions of administrative creativity.

Importance of the study:
The importance of this study stems from the process of being trying to identify the impact of transformational leadership in the administrative creativity.
This study also acquires its importance in the following considerations:
1. The study is an extension of previous studies which have a direct relationship with its variables the weather independent or dependent, it is expected that this study will serve as a breakthrough for further studies in the field of transformational leadership.
2. Attempt to draw the attention of business organizations departments, to the need to know the relationship between transformational leadership and creativity in the administrative organization and try to highlight the importance of transformational leadership in the leader performance for his work.
3. It is hoped that the study results can contribute to make recommendations and proposals for leaders in industrial companies (Mining and Extraction) assist in the use of the most appropriate leadership style in the staff management to achieve administrative creativity to them.

Research hypothesis:
HO1: There no impact statistically significant When the level of significance (0.05 ≥ α) the pattern of Transformational Leadership (Inspirational Motivation, Intellectual Stimulation, Individualized Consideration) and administrative creativity with its dimensions (originality, intellectual fluency, flexibility of mind) in industrial companies (Mining and Extraction).
HO2: There statistically significant differences at the level of significance (0.05 ≥ α) of the study sample scenarios for a transformational leadership style is attributable to demographic factors (gender, age, educational level).
Model of the study:
Independent variables dependent variable

**Transformational Leadership**
- Inspirational Motivation
- Intellectual Stimulation
- Individualized Consideration

**行政创造力**
- Originality
- Intellectual fluency
- Flexibility of mind

Demographic characteristics of the central departments
- Gender, age, educational level

Methodology:
The researcher in this study adopts two approaches of Research Methodology:
1. Descriptive analytical approach: to review the most important relevant literature to the study subject, as well as previous studies to cover the theoretical aspect of the study.
2. Field research approach: it has been used to cover the practical side of this study, to draw conclusions on the study variables by relying on the questionnaire was designed for the purposes of this study, according to generally accepted scientific steps.

The study sample and population
The study population comprised on all industrial companies (Mining and Extraction) public shareholding in Jordan and listed on the ASE of (12) companies, according to the annual report of the Amman Stock Exchange for the year 2012, the study sample the Researchers was resorted to choose a simple random sample consisting of (176) members of workers with the upper and middle management levels in industrial companies (Mining and Extraction).

Data collection device
The researcher has worked on the design of a device for field data collection from the sample based on a review of the relevant literature and previous research efforts, so that was an integrated device design reflect, and measure the variables of the study to test the hypotheses.

Device sincerity
Sincerity has been verified through the use of arbitrators elite of university professors and specialists in this field, and these arbitrators have expressed observations on this tool, some items of the questionnaire were amended and delete the other items.

Stability of the study device
Test was used (Cronbach's Alpha) to measure the stability of the questionnaire as the value (alpha = 97.6%) for all the items of the (24) questionnaire items, which represent the dimensions of the study, which is a good percentage and refers to a high reliability and sincerity, being higher than acceptable percentage (60%), and that for all fields of study.

Statistical methods used in the study
The use of the program Statistical Package for Social Sciences program, (SPSS), to extract the results, and through statistical treatments that included Statistics duplicates and percentages, and the arithmetic mean and standard deviation, and Cronbach's alpha to measure the internal consistency, regression analysis to test the hypothesis of the study.
Descriptive statistics Results for the study questions

Test the first hypothesis: 

**H01:** There no impact statistically significant When the level of significance \((0.05 \leq \alpha)\) the pattern of Transformational Leadership (Inspirational Motivation, Intellectual Stimulation, Individualized Consideration) and administrative creativity with its dimensions (originality, intellectual fluency, flexibility of mind) in industrial companies (Mining and Extraction).

**Table (1) averages and standard deviations for the first hypothesis (Transformational Leadership).**

<table>
<thead>
<tr>
<th>No</th>
<th>Item</th>
<th>arithmetic mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Behave in a manner from which I have the confidence and the respect and admiration of employees.</td>
<td>4.15</td>
<td>.646</td>
</tr>
<tr>
<td>2</td>
<td>I give priority to the construction of a set of shared values among employees.</td>
<td>4.10</td>
<td>.681</td>
</tr>
<tr>
<td>3</td>
<td>moving away himself from the abuse of power in personal gain.</td>
<td>4.12</td>
<td>.684</td>
</tr>
<tr>
<td>4</td>
<td>has leadership skills reinforce confidence in him</td>
<td>4.08</td>
<td>.769</td>
</tr>
</tbody>
</table>

**Inspirational Motivation**

| 5  | interested with Stimulate the workers for achieving the goals and vision of the company | 4.44            | .551               |
| 6  | I'm working on stirring the spirit of enthusiasm to work for the employees. | 4.30            | .584               |
| 7  | Work on the provision of a collective sense of administrative tasks. | 4.21            | .683               |
| 8  | Seeks to achieve productivity beyond what is expected. | 4.18            | .679               |

**Individualized Consideration**

| 9  | I Express my appreciation workers when they perform a good job. | .739            | 4.09               |
| 10 | I give personal attention to workers who have capabilities differentiate them from others. | .650            | 4.11               |
| 11 | Encourages the expression of ideas even if it conflicted with his thoughts. | .679            | 4.10               |
| 12 | Believes in the importance of the participation of employees in the change process. | .802            | 4.15               |

The general average  | .680  | 4.17

Shown in Table (1) that the general arithmetic average has reached (4.17). By comparing this average, which was obtained by an average measurement tool used to measure this variable, it turns out that it is higher than the point at which represents the degree of approval (+4), while the standard deviation (0.680). According to the results "there is a statistically significant effect of transformational leadership style **Inspirational Motivation, Idealized Influence, Individualized Consideration** and administrative creativity with its dimensions **originality, intellectual fluency, flexibility of mind** in industrial companies (Mining and Extraction).

Using multiple regression analysis, the following table (2) shows the results obtained when testing this hypothesis.

**Table (2) the results of multiple regression test to the effect of transformational leadership**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standardized Coefficients</th>
<th>Unstandardized Coefficients</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>Beta</td>
<td>Std. Error</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.096</td>
<td>-0.069</td>
<td>-0.719</td>
<td>0.473</td>
</tr>
<tr>
<td>Transformational</td>
<td>0.897</td>
<td>0.023</td>
<td>0.942</td>
<td>0.897</td>
</tr>
</tbody>
</table>

R = 0.897  \(R^2 = 0.805\)

As seen from the data contained in the previous table (2) that the values of F calculated for this hypothesis was \((40.508)\), the largest of the value of tabulate F of \((1.645)\), and where to base the decision point to reject the nihilism hypothesis if the value of calculated F is greater than tabulate F, it is accepted alternative hypothesis which states that "no statistically significant effect of Transformational Leadership (**Inspirational Motivation, Idealized Influence, Individualized Consideration**) and administrative creativity with its dimensions (**originality, intellectual fluency, flexibility of mind**) in industrial companies (Mining and Extraction) in Jordan. And this is confirmed by the value of significance (Sig.) amounting to zero, where it is
less than 5%. Note that the coefficient (Beta) has reached 0.897 indicates that the direction of the positive relationship between the independent variable and the dependent variable.

Results related to the dependent variable: Administrative Innovation

Table (3) means and standard deviations for the study sample answers to the administrative dimensions creativity.

<table>
<thead>
<tr>
<th>The dependent variable of the creative abilities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>originality</strong></td>
<td></td>
</tr>
<tr>
<td>1 I Complete what assigned to me of work in a renewed style.</td>
<td>.614</td>
</tr>
<tr>
<td>2 I try to stray away from the tradition of others in solving the problems facing workflow</td>
<td>.610</td>
</tr>
<tr>
<td>3 I find that working procedures need to change the process and ongoing development.</td>
<td>.608</td>
</tr>
<tr>
<td>4 Always trying to invent new ways to carry out my duties in the light of available resources</td>
<td>.696</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>.632</td>
</tr>
<tr>
<td><strong>intellectual fluency</strong></td>
<td></td>
</tr>
<tr>
<td>5 I have the ability to provide new ideas for working methods</td>
<td>.644</td>
</tr>
<tr>
<td>6 I have the ability to put ideas and quick solutions to address business problems.</td>
<td>.622</td>
</tr>
<tr>
<td>7 I have the ability to provide more than the idea during a short period of time.</td>
<td>.644</td>
</tr>
<tr>
<td>8 I have the ability to provide new ideas for the development of work spontaneously and easily.</td>
<td>.631</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>.630</td>
</tr>
<tr>
<td><strong>flexibility of mind</strong></td>
<td></td>
</tr>
<tr>
<td>9 Possessed the ability to organize the information available and rebuilt according to the nature of the work.</td>
<td>.634</td>
</tr>
<tr>
<td>10 Get the necessary information in a timely manner.</td>
<td>.631</td>
</tr>
<tr>
<td>11 Had the authority to make decisions without resorting to senior management.</td>
<td>.637</td>
</tr>
<tr>
<td>12 I have the ability to consider things from different angles.</td>
<td>.626</td>
</tr>
<tr>
<td><strong>The general average</strong></td>
<td>.690</td>
</tr>
</tbody>
</table>

was found that the arithmetic average has reached (4.57) and comparing this average, which was obtained by averaging the measurement tool that used to measure this variable, it is clear that more than the point at which represents the degree of approval (+4), while the standard deviation (.690). The answers ranged from (4.02-4.42).

Second major hypothesis

HO2: There are statistically significant differences at the level of significance (0.05 ≥ α) of the study sample scenarios for a transformational leadership style is attributable to demographic factors (gender, age, educational level).

To test the hypothesis test was use (One way ANOVA) test. The following table shows the test results, are as follows: -

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sum of squares</th>
<th>Degrees of freedom</th>
<th>Average squares</th>
<th>f</th>
<th>The level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between the squares</td>
<td>0.929</td>
<td>3</td>
<td>0.929</td>
<td>2.621</td>
<td>0.133</td>
</tr>
<tr>
<td>Inside the squares</td>
<td>34.918</td>
<td>171</td>
<td>0.201</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between the squares</td>
<td>1.213</td>
<td>3</td>
<td>0.404</td>
<td>2.008</td>
<td>0.115</td>
</tr>
<tr>
<td>Inside the squares</td>
<td>34.634</td>
<td>171</td>
<td>0.201</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Educational Level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between the squares</td>
<td>0.922</td>
<td>3</td>
<td>0.307</td>
<td>1.504</td>
<td>0.215</td>
</tr>
<tr>
<td>Inside the squares</td>
<td>34.920</td>
<td>171</td>
<td>0.204</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table (4) to the absence of significant differences in the perceptions of the study sample for a transformational leadership style is attributable to demographic factors (age, gender, educational level), where the level of significance reached higher than the specified value (0.05).

Discussion of Results

The study analyzed the impact of transformational leadership creativity management in industrial companies
(Mining and quarrying), with the following presentation of the most important findings of the study results:

- The results of the study showed that respondents' perceptions of the dimensions of transformational leadership was high.
- The results of the study showed that perceptions of the respondents to the items of administrative creativity was high.
- The results of the study showed that there is a statistically significant effect at the level of \( \alpha = 0.05 \) for transformational leadership in creativity management in industrial companies (Mining and Extraction).
- The results of the study showed that there was no statistically significant effect at the level of significance \( \alpha = 0.05 \) of the study sample scenarios for a transformational leadership style is attributable to demographic factors (Gender, age, educational level).

**Recommendations**

Based on the results, the study recommends the following:

1. Reliance on transformational leadership style in industrial companies (Mining and Extraction) should be promoted, to increase the effectiveness of administrative creativity in industrial companies.
2. The adoption of the concept of ideal influence among leaders working in industrial companies (Mining and Extraction) should also be promoted, and it should be acted as models of workers seeking to emulate.
3. Holding specialized events interesting in persons creators to develop their abilities and develop their performance and encourage them to highlight the best of what they have and rewarded for creativity and creativity, materially and morally.
4. Further studies regarding transformational leadership and its impact on the administrative creativity in other sectors should be considered.

**References**

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