Transformational Leadership and Individual Creativity: an Integrated Approach of Empowerment as a Mediator

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Abstract—the present study aimed to build a theoretical model for the causal relationship between the variables of the study and verifying the validity of the proposed model by examining the direct and indirect impact of transformational leadership (TLS) on individual creativity and whether, integrating of structural and psychological empowerment acts as a mediating strength this relationship. Consequently, to investigate these relationships, a survey was conducted of 429 faculty members from Higher Institutes of Technology in western Libya. The researcher used four measures to measure the variables of the study: TLS, structural empowerment, psychological empowerment, and individual creativity. Accordingly, the results of mediating and path analysis indicated that both structural empowerment and psychological empowerment separately, each playing a partial mediation role in the relationship between TLS and individual creativity. Moreover, the main hypothesis of the model has been tested, whether the integration of structural and psychological empowerment plays the mediating role and promoting the relationship of TLS to individual creativity. The results proved that TLS was strongly correlated with individual creativity. In addition, the results also showed that the integrated approach of empowerment mediated and strengthened this relationship further than in the case of mediation via both of structural empowerment or psychological empowerment. In conclusion, this study represented an attempt to investigate TLS and its impact on individual creativity in the higher education institutions in a non-Western country. Also, this study sought to broaden the general understanding of the TLS concept and how its relevance with many other variables, as the individual's creative performance and integrated approach of empowerment.

Keywords—Transformational Leadership; Empowerment approaches; Structural Empowerment; Psychological empowerment Individual creativity; higher technical institutes; Libya

I. INTRODUCTION AND BACKGROUND

There is no doubt that the development, organization is a continuous and renewed process in organizations, imposed by the dynamic environment which develops by rapid pace led to creating a competitive atmosphere in the goods and services market. Accordingly, the theories of management, leadership, and behavioral sciences have also evolved to keep pace with this development and adapt with this change. Moreover, the
In the context of the direct relationship between TLS and creativity, some studies found a positive relationship by influencing the personal values of subordinates, which led to better performance [2, 3, 4]. On the other hand, it may be possible for TLS to improve its performance and enhance its role by using mediation variables such as structural empowerment, psychological empowerment, organizational learning, job satisfaction or other variables. In this study, we will examine the relationship between TLS and individual creativity by integrating structural empowerment and psychological empowerment as a mediator variable. Some previous studies have called the process of integrating both structural empowerment and psychological empowerment as "process empowerment". A number of researchers have called for adoption of this concept of empowerment as an integrated approach to empowerment [5, 6]. Consequently, in line method of Baron & Kenny [7] for mediation analyses, our study hypothesized the following hypotheses:

H1: TLS positively associated with structural empowerment.
H2: TLS positively associated with psychological empowerment.
H3: SE is positively associated with individual creativity.
H4: PSE is positively associated with individual creativity.
H5: TLS is positively associated with individual creativity.
H6: The integrated approach of empowerment mediates the relationship between transformational leadership and individual creativity.

II. METHOD

Four types of reliable questionnaires were used to gather the necessary information related to the constructs of the study, Pass & Avello questionnaire (MLQ), to measure transformational leadership [8], Laschinger questionnaire for structural empowerment [9], Spreitzer questionnaire for psychological empowerment [10], Tierney & Farmer questionnaire for individual creativity [11,12]. All variables in the model were measured using Likert type scale, ranging of five points from 1 (strongly disagree) to 5 (strongly agree).

![Conceptual model of the study](image)

Fig. 1. Conceptual model of the study

The sample included 429 faculty members (57 females and 372 males) from Higher Institutes of Technology in western Libya. The model was tested according to the steps of Baron and Kenny for mediation analysis as well as simple and multiple linear regression have been employed. Figure 1 illustrates the conceptual framework.

III. RESULTS

All statistical analyses were performed using the Statistical Package SPSS, version 23. Table1 presents summaries of descriptive statistics, Cronbach alphas and correlation coefficients of the variables. The results showed that most correlation coefficients did not exceed 80%; this enhances the certainty degree of the variables autonomy and no threat of collinearity and confirming their validity for regression analysis [13]. Moreover, all the variables were significantly positively correlated with each other. Thus, the first condition for the prediction and the initial verification of the proposed causal model has been achieved.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformational leadership, TLS</td>
<td>3.9 (.66)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structural empowerment, SE</td>
<td>3.2 (.72)</td>
<td>.566</td>
<td>.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological empowerment, PSE</td>
<td>3.0 (.65)</td>
<td>.769</td>
<td>.508</td>
<td>.72</td>
<td></td>
</tr>
<tr>
<td>Individual creativity, IC</td>
<td>3.8 (.41)</td>
<td>.507</td>
<td>.452</td>
<td>.56</td>
<td>.77</td>
</tr>
</tbody>
</table>

Correlation coefficients are presented on the diagonal in the parentheses. *** < 0.01.

As we mentioned, the method suggested by Baron and Kenny was followed to test the hypotheses. Regression analysis results for assumptions 1-4 are displayed in Table 2.

Hypothesis 1 predicted that transformational leadership is positively associated with structural empowerment. We can see that the TLS, is a significant predictor to structural empowerment, (β = .556, p < .01), R² = 0.399 which indicates that TLS, has a significant association with structural empowerment. In other words, TLS can explain 39.9% of the total variation in the structural empowerment. Based on these results, hypothesis 1 is supported.

Our second hypothesis predicted that TLS is positively associated with psychological empowerment. The findings show that TLS is a significant predictor of the psychological empowerment, (β = .769, p < .01), R² = 0.592, this means TLS explains 59.2% of the variance in psychological empowerment. Based on this result, hypothesis 2 is supported.

The third hypothesis expected that structural empowerment is positively associated with individual creativity.

The results indicated that structural empowerment significantly and positively affects individual creativity (β = .452, p < .01). Equally important, the R² = 0.205. This means that the structural empowerment explains 20.5% of the individual creativity variation. Hence, the relationship is confirmed.
Hypothesis four predicted that psychological empowerment is positively associated with individual creativity. The results showed psychological empowerment had a positive and significant influence on individual creativity, \((\beta = .532, p < .01)\), and the relationship was explained by structural empowerment \((R^2 = 0.281)\). Based on the result, hypothesis 4 is supported. Moreover, the results indicated that psychological empowerment partially mediated the relationship between TLS and individual creativity. As well as the second indirect path via structural empowerment, which represents the primary objective of the study, this mediating has interpreted 33.6% of the total variation in individual creativity. Based on these results, the model of the study has been completely supported.

In the same way, the results of third and fourth hypothesis tests achieved the second condition of mediation, that the mediating variables should be related directly to the dependent variable (equations 3 and 4). Similarly, the results of the fifth hypothesis test achieved the third condition of mediation that, the independent variable should be having direct and significant relationship with the dependent variable (equation 1).

The main purpose of conduct the second and third regression equation was to compare the effect of mediation in these equations with the mediation of the two variables together in the fourth equation. The mediation test was conducted for examining the effect structural empowerment in the second equation, and psychological empowerment in the third equation, as well as for both together in the fourth equation. Our results also supported that TLS has a significant positive influence of mediation variables structural and psychological empowerment \((H, 1, 2)\). Our results also indicate that TLS is associated with a positive relationship with individual creativity. Hence, the findings are consistent with other similar research results [14]. After the conditions of the mediation test were verified, the final step was the examination of the mediation analysis. In the first stage was entered structural empowerment as a mediating in the...
relationship between TLS and individual creativity. In the second stage, was entered psychological empowerment as a mediating and in the final stage, structural and psychological empowerment together was entered as a mediating.

The outcome of the regression analysis showed four values of determination coefficient \( (R^2) \) for four different paths. According to the mediating results illustrated that the direct path explains 25.7% of the variance of individual creativity. This path is weaker than the three indirect paths, because the leaders in the indirect path do not give enough attention to aspects of structural empowerment and psychological state of the subordinates. While the second indirect path identified the relationship TLS with individual creativity via structural empowerment, \( (R^2 = .29,9) \), and the third path via psychological empowerment, \( (R^2 = .30,6) \). Moreover, the fourth indirect path identified the relationship via structural empowerment and psychological empowerment, \( (R^2 = .33,6) \). As well as the Beta value in the three indirect paths were decreased of its value in the direct path, however it remained significant, which meant that empowerment partly mediating the relationship between TLS and the creative performance of subordinates. So the results of this study proved that the integrated approach of empowerment strengthens the relationship between TLS and creative performance of subordinates.

V. CONCLUSION

The current study was designed to examine and test the mediation of an integrated model to enable subordinates between transformational leadership and individual creativity. According to the study's findings, the transformational leader is positively associated with structural and psychological empowerment. Consequently, he directly influences the creative performance of individuals. Not only that, but the transformational leader can enhance his role by pushing his subordinates for more creative work and achieve results that exceed expectations, either through structural empowerment or through psychological empowerment. Accordingly, the results of mediation analysis showed that structural and psychological empowerment is partially mediating the relationship between TLS and individual creativity and that both separately enhance creativity of their subordinates. Despite, the positive role played by structural or psychological empowerment in enhancing the role of transformational leader to increase the level of creativity of their subordinates. Therefore, the transformational leadership role can be enhanced when the transformational leader uses both structural and psychological empowerment as a mechanism to support his efforts to achieve creative performance by creating environmental and psychological conditions that motivates his subordinates to think outside the box to find original solutions to the problems of work and thereby achieve creative performance on the individual level, which represents a fundamental step towards organizational innovation.

REFERENCE


