The Moderation Role of Transformational Leadership between Human Capital and Organizational Innovation in Abu Dhabi Government

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Abstract: Transformational leadership with human capital, and innovation are key success factors for modern organizations. Effective leadership style that encourages innovation among human resources will add competitive advantage to the organization. The aim of this study is to examine the moderation role of transformational leadership between human capital and organizational innovation. To achieve this aim, this study adopted quantitative and a survey by collecting data from employees of public sector in Abu Dhabi. Descriptive and inferential statistics was used to analyses the quantitative data. The result of this study shows transformational leadership moderates the association between human capital and organizational innovation. This study is one of the first, to the best of the researcher’s knowledge to test moderation role of transformation leadership in UAE. Therefore, the author recommends the leaders in public organizations in UAE to focus on the factors associated with human capital in particular knowledge, skill, and attitude of employees in order to improve the level of innovation in their organization. The outcome of this study revealed that, the vision of transformation leader is very important to achieve competitive advantage for organizations in UAE through encouraging human capital towards innovation in work and business. Thus, it is highly recommended to assign transformational leaders in UAE organizations to enhance innovation within workplace as one of the main characteristics of transformation leaders is supporting human capital towards innovation.

Keywords: Transformational Leadership, Human Capital, Organizational Innovation,

I. INTRODUCTION

Human capital plays an important role in the area of the economics and development. In the new global economy, human capital has become a central issue as an important resource to the nations. Moreover, in the area of the sustainable competitive advantage, the importance of the human capital plays a critical role to the success of the economics. A good human resource in any organization could also be one of the factors to organization success (Nlizwa Rashid, Jabar, Yahya, & Musa, 2014; Nlizwa Rashid, Jabar, Yahya, & Samer, 2015). As stated by Inkson, (2008) firm’s deployment of unique bundles of human capital are the key successes to the competitive advantage.

Besides good and useful organization resources, another factor that contributes in the organization development and management is the creativity of the workers as well as the employers (N. Rashid, Alzahrani, & Al-shami. S, 2018). Like every organization in the public sector, government organizations have got to nurture creativity within its workforce and employees to match that of challenges sources, as the ways and methods of challenges keep evolving in par with the huge advancement of technology through innovation.

In UAE, institutional effectiveness and business sophistication are the key factors for innovation-driven economy. The quality of a country’s overall organization networks as well as the quality of operations and strategy of individual firms has become the concern for achieving competitiveness. Thus, this study will adopt a quantitative survey to investigate the influence of certain factors associated with human capital such as knowledge, skills, and attitude on organizational performance. It is the management’s obligation to identify and carefully make the choice among many prospective employees, as well as the existing ones. By understanding the problems in human capital, the management will be able to avoid from creating more loss and create more opportunities and success.

According to Global Competitiveness Report (2018), one of the most problematic factors for organization performance in the UAE is the lack of educated workforce, which represents the inadequacy of educated human capital. Consequently, this will affect organization innovation. Hence, there is a need to focus on the human capital and its components to improve the organization innovativeness so that the workers can perform productively. But without effective leadership the development of human capital towards innovation would be a difficult task.

Transformational leadership is being increasingly investigated in the academic literature as an important factor in today’s world that will lead to organizational innovation. Further, significant emphasis is directed towards the relationships between transformational leadership, human capital, and innovation (Aragón-Correa, García-Morales, & Cordón-Pozo, 2007; Gumusluoglu & Ilsev, 2009; Wikhamn, 2019). Therefore, this study considers the transformational leadership as the moderating factor that interact between human capital and organisational innovation.
The findings from the study will be utilised to develop a competency human resource model that contribute to innovative practices in public organisations in the Arab region.

II. THE AIM OF THIS STUDY
The purpose of this research is to investigate the moderation effect of transformational leadership between human capital and organisational innovativeness within Abu Dhabi government sector. For this purpose, human capital will be considered as the independent variable and the organisational innovation as the dependent variable. Moreover, study is to examine the importance of and limitations to achieve organizational innovativeness for public organizations in Abu Dhabi and to analyze the relationship between human capital competencies and organizational innovativeness of the public organizations in Abu Dhabi.

III. THE SIGNIFICANCE OF STUDY
This current study involves the examination that derived from different theories and frameworks. This will benefit researchers who are interested in enhancing their organizational and economic knowledge, not only to its own framework, but also allow other researchers and academicians to develop and extend existing and new frameworks in this area of study. Besides, this study contributes the theoretical knowledge in terms of examining the moderation role of transformational leadership.

IV. PROBLEM STATEMENT
The many challenges arise from such transformation requires public organizations to adopt innovative plans and skills in order to keep up with those challenges. Thus, it is vital for the public organizations to be responsive and equip themselves with new knowledge and skills so that they will be able to serve the country effectively. In this case, emphasizing on developing the relevant human capital that contribute to the innovativeness of the public organization is necessary.

According to the Global Competitiveness Report (2017), the UAE ranked above the Middle East in terms of development in all the 12 pillars of competitiveness (see Figure 1). Although almost all the 12 pillars have achieved high level of competitiveness, innovation (12th pillar) has received the lowest achievement. Hence, more efforts are needed to improve the achievement in innovation in both the private and public organizations.

![Figure 1: Stage of Development in the United Arab Emirates](image)

Source: (Global Competitiveness Report, 2017)

Based on these reports, it is evident that the lack of educated and innovative workforce is also applicable to all public sectors in the country. Thus, the prescribed notion directs attention to the development of human capital (skills, knowledge) that contributes the organizational innovation. This problem has been address in this study by answering the following main question:

Does transformational leadership moderate the influence of human capital towards innovation performance of public organizations in Abu Dhabi?

V. RESEARCH METHODOLOGY
Quantitative methods applied in this study to examine the moderation effect of transformational leadership on the relationship between human capital and innovation performance. The population consist of employees working in Abu Dhabi government sector. Multiple regression analysis is used to test the moderation model.
The main data collection method and measurement is through survey, specifically self-administered paper questionnaire. While the subjects of this study are employees within the public sector in UAE, it preferable to distribute the questionnaire to them in-person to motivate them and clarified for any doubts. The advantages of self-administered questionnaire stated as; questions can be clarified, the ability to motivate respondents, high response rate, low cost when administered to a group, anonymity is high (Sekaran & Bougie, 2013).

VI. HUMAN CAPITAL

Human capital defined by many social scientists and economists refers to the individuals’ knowledge, skills and attitude of the workforce, representing the critical resources to the organizations (Armstrong & Shimizu, 2007).

Institutional effectiveness and business sophistication are the key factors for innovation-driven economy. The quality of a country's overall organization networks as well as the quality of operations and strategy of individual firms has become the concern for achieving competitiveness

Over the past decade most research in human capital has emphasized the use of RBV to explain the influence of internal resources on competitive advantage and performance in the firm (Armstrong & Shimizu, 2007).

Penrose (1959) and Wernerfelt (1984) introduced RBV as a group of resources and capabilities that combined develop competencies (Rivard, Raymond, & Verreault, 2006). This theory then developed and formulated by Barney et al. (2001) to answer the question that have been asked so many times in the organizations field on why do some firms persistently outperform others? (Barney et al., 2001). According to the RBV of the firm, competitive advantage may only happen in situations of firm resources are in heterogeneity - which is also explained as the human resources diversity across firms (Popli, Ladhani, & Gaur, 2017).

VII. TRANSFORMATIONAL LEADERSHIP

Two main forms of leadership include transactional leadership and transformational leadership (Asencio & Mujkic, 2016). Transactional leadership has been defined as the type of leadership, which ensures process of exchange between leaders and followers. Here, due to leadership acknowledgement of subordinates needs and the need to provide financial services and organizational recognition as motivational factors, transactional leadership have the ability to induce performance in the form of improved performance (Sucupira, Saab, Demo, & Bermejo, 2019). According to Bass (1997), two main aspects of transactional leadership have established close association with ability to gain trust of followers; these include contingent reward and management by exception.

Furthermore, transformational leadership refers to the notion of how leaders can use perfect impact (charisma), inspiration, intelligent inspiration, or personalized thought to mobilize the followers beyond their immediate self-interests into maturity level that strives for achievement, self-actualization, and the well-being of others, the organization, and society (Erkutlu, 2008). In terms of cultural factor, according to Hofstede & Minkov (2010) the United Arab Emirates has a high power distance which indicates a highly centralized system in organizations, therefore there is a great need for a leader that navigates through in most of organizational tasks. Mentioning such characteristic highlights, the crucial role that leadership in general and transformational leadership in particular play in organizations in UAE

Recently, the effect of transformational administration is winding up progressively significant in considering data framework achievement and innovation adaption. As a rule, and as indicated by Bass (1990) transformational initiative happens when pioneers raise their representatives’ advantages by making mindfulness and acknowledgment of a specific reason, and by spurring them to work for higher objectives to satisfy self-realizing needs (Riggio and Bass, 1997). Transformational administration is characterized situated in four components allure, singular thought, scholarly incitement, and persuasive inspiration (Elkhani, Soltani, and Nazir Ahmad, 2014; Schepers, Wetzel, and Ruyter, 2005). As it is more often used in the organizational level (Schepers et al., 2005), transformational leadership is seen as the method to create a clear vision, increase awareness about problems, and motivate followers to find new ways to improve current performance (Antonakis & House, 2014).

VIII. THE MODERATION ROLE OF TRANSFORMATIONAL LEADERSHIP TOWARDS INNOVATION

affirmations. An examination driven by Gogan, Arteme, Sarca, and Draghici (2016) guided an assessment which was associated in four drinking water scattering associations in Romania to null over the effect of human capital on definitive execution. The results gained from this assessment showed that there is a tremendous association between the human capital and various leveled execution. Moreover, a logical examination of open part schools in southern Punjab-Pakistan, two schools were in joined into this investigation to be explicit Bahauddin Zakariya University Multan and Islamia University Multan. Results has likewise demonstrated the effect of scholarly capital (human, auxiliary, and social) on the associations execution. Transformational administration and creative work conduct was likewise contemplated in China by Afzar, Badir, and Saeed (2014), Outcomes uncovered that mental strengthening intervened the relationship between transformational authority and advancement work conduct. Furthermore, Xiao, Zhang, and Ordo (2017) directed an investigation in China to examine the errand execution, and results demonstrate that both transformational authority and information sharing have positive effects to task execution. In addition, imaginative conduct of Korean specialists has been considered by Choi, Kim, Ullah, and Kang (2016), who uncovered that Transformational initiative was fundamentally identified with both worker inventive conduct and sharing the information. Another investigation was directed by Telbani (2013). The examination likewise found that the three parts of human capital (Knowledge, abilities, mentality) have huge positive association with development in Jawwal Company.
Elective investigation was directed by Busaibe, Singh, and Ahmad (2017), who inspected the elements affecting the authoritative development inside the oil and gas industry in the United Arab Emirates (UAE).

Results demonstrates that authoritative culture and hierarchical initiative are drivers for the development in an association. Assert that this current examination's hole is for the most part about the job of transformational administration as it picks up its significance from the way that the social standard in UAE of having a concentrated framework with high power separation gives authority rather a critical job. Subsequently, the control connection between transformational initiative towards human capital and hierarchical development is inspected in this investigation as indicated by another theoretical model as appeared in Figure.2.

**Figure.2:** The conceptual framework between transformational leadership, human capital and organizational innovation

Based on the findings from literature and previous studies, the following hypothesis are set for examination in the quantitative analyses after conducting the survey.

**Hypothesis:** Transformational leadership moderates the positive effect of the human capital on organizational innovation among employees within Abu Dhabi government sector.

**IX. RESULTS AND ANALYSIS**

This section analyses the controlling effect of TL the relationship between the human capital and organizational innovations of trainees. The model shows the moderating effect of TL on the relationship between human capital and organizational innovation. This results either enhancing, where increasing the moderator (TL) would increase the effect of the predictor (Human capital) on the outcome (Organizational innovation); or buffering, where increasing the moderator (Transformational leadership) would decrease the effect of the predictor (Human capital) on the outcome (Organizational innovation); or (c) Antagonistic, where increasing the moderator (Transformational leadership) would reverse the effect of the predictor on the outcome and establish a negative relationship.

Hierarchical multiple regression is used to assess the effects of a moderating variable. To test moderation, the researcher is looking at the interaction effect between the independent and moderator variable, and test whether or not such an effect is significant in predicting the dependent variable. The following model is the final moderation construct of variables after initiating centralization of interaction moderation variable (IV*M) as shown in Figure.3.

**Figure.3:** The moderating effect represented by interaction mode ration variable (IV*M).

The following equation showing the moderation regression formula:

Organizational innovation (DV) = β₀ + β₁ Human capital + β₂ Transformational leadership + β₃ (Human capital * transformational leadership) + e

The most important part is that the interact moderation (Human capital * transformational leadership) has a significant regression with the dependent variable Organizational innovation to approve the moderation effect.

The first step is to test the correlation between the three variables as shown in the table below:
Table 1: The correlation between the independent, dependent, and moderator variables

|                      | Organizational innovation | Human Capital | Transformational Leadership |
|----------------------|----------------------------|---------------|-----------------------------|
| Pearson Correlation  | 1                          | .762**        | .713**                      |
| Sig. (2-tailed)      | .000                       | .000          |                             |
| N                    | 385                        | 385           | 385                         |
| Pearson Correlation  | .762**                     | 1             | .668**                      |
| Sig. (2-tailed)      | .000                       | .000          |                             |
| N                    | 385                        | 385           | 385                         |
| Pearson Correlation  | .713**                     | .668**        | 1                           |
| Sig. (2-tailed)      | .000                       | .000          |                             |
| N                    | 385                        | 385           | 385                         |

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in the table above, the Pearson correlation coefficients (r) between Organizational innovation (DV), Human capital (IV), and transformational leadership (moderator) are high and statistically significant (ρ<0.05, ρ=0.000). Therefore, it is possible to proceed in moderation analysis.

The next step is to center the predicted variables (Human capital, Transformational leadership), and then have a product of multiply the two centered variables and that gives us the moderator (interaction).

The next step is to run the regression and check the moderation by Testing the multiple linear regression before and after moderation. The hierarchy regression is used to test the change in R-square of multiple linear regression before and after the interaction of moderator.

The following tables show the result of hierarchy multiple linear regression:

Table 2: Model Summary of 2 steps multiple regression

| Model | R       | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |
|-------|---------|----------|-------------------|-----------------------------|-------------------|
|       |         |          |                   |                             |                   |
|       |         |          |                   |                             | R Square | F Change | df1 | df2 | Sig. F Change |
| 1     | .810a   | .654     | .653              | .36311                      | .655     | 599.761 | 2   | 385 | .000         |
| 2     | .811b   | .657     | .655              | .36201                      | .002     | 4.872   | 1   | 385 | .027         |

a. Predictors: (Constant), Moderator Transformational Leadership

The model summary as shown in the table above provides information about the change in interpretation before and after the interaction effect of (moderator*IV). Reading the values in the model table below shows that interpretation percentage of both Human capital (IV), Transformational leadership (M) equal 65.67% (R² = 0.657), and it is significant (p<0.05). After the interaction effect of the moderator and independent variable calculated, it is found that additional percentage in interpretation of variance occurred in the dependent variable which is equal 0.3% (R² = 0.002), where is significant (p<0.05, ρ = 0.027).

The last step is to compare the standard coefficient of two models as shown in the table 3 below:

Table 3: Coefficient Table of moderation model

| Model | Unstandardized Coefficients | Standardized Coefficients | t     | Sig. |
|-------|-----------------------------|---------------------------|-------|------|
|       | B                           | Std. Error                | Beta  |      |
| 1     | (Constant)                  | .657                      | .121  | 5.382| .000 |
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As shown in the table above, the standard coefficient of the interaction effect of (moderator*independent variables) is significant (Beta = 0.092, p = 0.000). It is concluded that the relationship between the independent variable (Human capital) and the dependent variable (Organizational innovation) is moderated by the interaction effect of moderator (Transformational leadership) and independent variable (Human capital).

X. CONCLUSIONS

The outcome of this study revealed that, the vision of transformation leader is very important to achieve competitive advantage for organizations in UAE through encouraging human capital towards innovation in work and business. An effective leadership style can promote awareness among employees of the organizations about collective interest while further assisting them to attain innovation properly.

The influence of human capital on the degree of organizational innovation is important factor for the success of large organizations as well as those in the public sector. To achieve this aim, this study adopted quantitative and a survey by collecting data from employees of public sector in Abu Dhabi. Descriptive and inferential statistics was used to analyses the quantitative data. The result of this study shows that human capital has a direct and positive influence towards organizational innovation through high degree of knowledge and skills as well as positive attitude.

RECOMMENDATIONS

It is highly recommended to assign transformational leaders in UAE organizations to enhance innovation within workplace as one of the main characteristics of transformation leaders is supporting human capital towards innovation. Therefore, further studies on transformational leadership as moderator should be conducted in UAE in future to understand how the behavior of leaders support or weakening the impact of human capital on organizational innovation.

ACKNOWLEDGEMENT

The authors would like to express their gratitude to the Universiti Teknikal Malaysia Melaka for the assistance and support in this publication.

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