

The Effects of Human Capital on Organizational Innovation in Abu Dhabi Government



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Abstract: Today, human capital plays a significant role in developing the innovation process of organizations and for that reason it is an important element of any successful organization. The aim of this study is to examine the impact of three factors associated with human capital namely knowledge, skill, and attitudes towards organizational innovation. To achieve this aim, this study adopted a quantitative survey by collecting data from employees of public sector in Abu Dhabi. Descriptive and inferential statistics was used to analyse 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. This study tested three factors mentioned above towards organizational innovation 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. The outcome of this study revealed that the skills and knowledge of human capital are one of the pillars of this vision is transforming the UAE into competitive knowledge economy through innovation and creativity. Moreover, it is highly recommended to test the moderation effect of transformational leadership on this relationship in future studies to understand how the behavior of leaders support or weakening the impact of human capital on organizational innovation.

Keywords: Human Capital, Organizational Innovation, United Arab Emirates (UAE), government sector

I. INTRODUCTION

For a very long time, human capital in terms of knowledge and skills are considered as the most important elements especially in the post-industrial organizations (Ooi, Hooy, & Mat Som, 2017). Knowledge has been encouraging the creativity and discovery, as well as inventiveness and innovation, resulting in the organizations' success and survival (L. Rashid, Shamee, & Jabar, 2014; S.A, Majid, Rashid, & Fasasi, 2012; Stiles & Kulvisaechana, 2003). The current era that we are living in is generally known as the era of technology. It has transformed the way organizations are managed and created new challenges in the external environment.

With the increased rate of digitalization in the world, organizations need to keep up with the pace to realize its goals and solve its problems. One way for organizations to do that is to embrace innovation as a tool stay and lead in a new era of information and communication technology dominance (Àngels Dasí, Frank Elter, Paul N. Gooderham, 2017).

This is also applicable for public organizations where it became indispensable for them to enhance organizational innovation to counter new challenges. Further, much of the study of human capital and innovation involved SMEs or profit organizations and tend to focus on single level.

The knowledge of human capital is the central resource of a developed economy. Human capital, which is the experience, capabilities and knowledge of people (Namasivayam & Denizci, 2006), also human capital can share these qualities with the organization to create value (Baron, 2011). Similarly, Darroch (2005) concluded that aptitude is portrayed through an employee's ability to grasp new knowledge, abilities and experiences. Literature have proven that human capital management training can assist or inhibit knowledge transfer and performance improvement (Shafloot, 2012).

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.

This research intends to investigate the effects of human capital on organisational innovativeness within Abu Dhabi government sector. For this purpose, human capital factors namely: knowledge, skills and attitude 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 association between human capital competencies and organizational innovativeness of the public organizations in Abu Dhabi. This will bring a new insight to the body of knowledge in how to improve the innovation capability of government institution since most of the studies paid attention to the private, especially in developed countries.

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This study is also one of the first, to the best of the researcher’s knowledge to test three factors mentioned above twords organziational innovation in UAE. Moreover, there has been very limited study that investigates innovative practices within a public sector. Hence, this research addresses the gap of the body of knowledge by conducting a research in public organizations focusing on multilevel investigation namely the combination of micro (individual) and meso level (organizational level). Hence, this study aims to address this limitation.

II. PROBLEM STATEMENT

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.

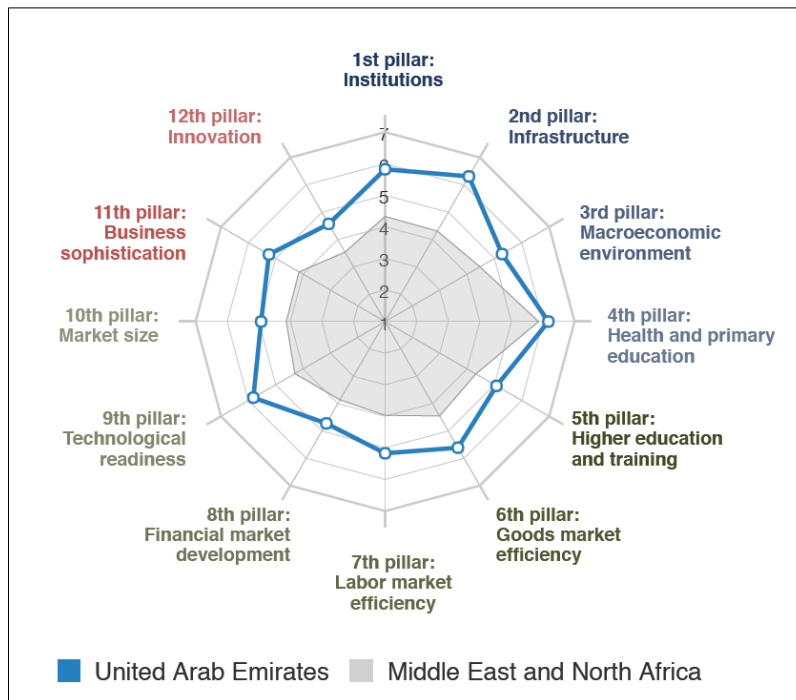


Figure 1: Stage of Development in the UAE

Source: (Global Competitiveness Report, 2017)

Furthermore, according to Global Competitiveness Report (2018) among the problematic factors faced by organizations in the UAE are inadequate educated workforce and insufficient capacity to innovate (see Figure 2).

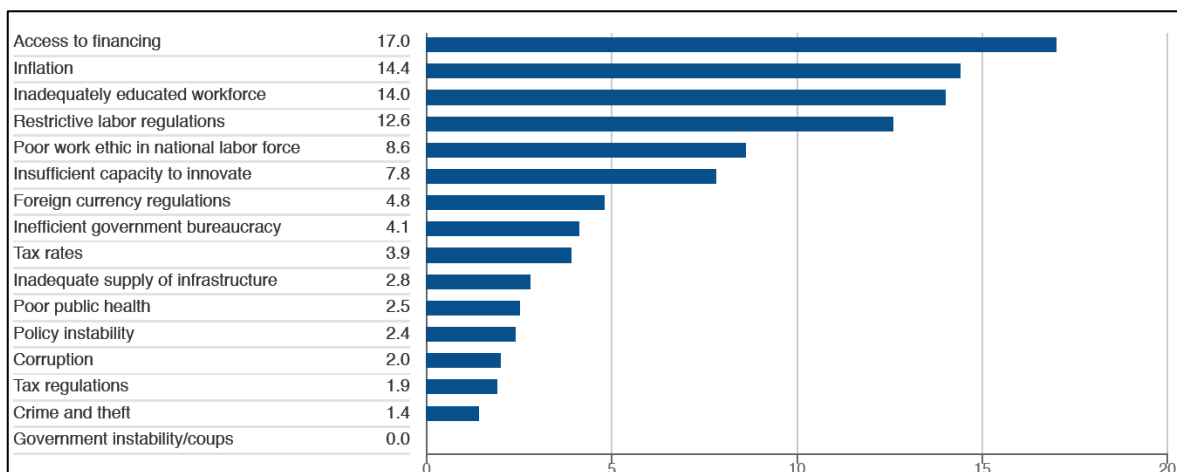


Figure 2: Most problematic factors for doing business in UAE

Source: (Global Competitiveness Report, 2018)

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:

What is the relevant human capital (knowledge, skills, and attitude) that contributes to innovative public organizations in Abu Dhabi?

III. RESEARCH METHODOLOGY

The goal of this paper is to analyze the causal relations between factors through theory testing. For this situation, the human capital is considered as the free factor and the hierarchical development as the needy variable. Quantitative strategies connected in this investigation to look at this relationship. This exploration fuses various factual strategies to survey the accumulated information and react to the speculations. A populace incorporates the gathering of people, occasions, or objects of intrigue which are the subjects of assessment by the specialist (Sekaran and Bougie, 2013). Asset Based View (RBV) will be utilized as the supporting hypothesis to pick up the comprehension of the impacts of human capital and hierarchical advancement of open areas. The number of inhabitants in this investigation comprises of representatives working in Abu Dhabi government segment.

IV. HUMAN CAPITAL

Human capital assumes a significant job in the zone of the financial matters and improvement. In the new worldwide economy, human capital has turned into a focal issue as a significant asset to the countries. In addition, in the region of the reasonable upper hand, the significance of the human capital assumes a basic job to the accomplishment of the financial matters. Human capital clarified in Resource Based View (RBV) as an important asset to the association; be that as it may, RBV have not recognized each kind of human capital (Kraaijenbrink, 2011). Over the previous decade most research in human capital has underlined the utilization of RBV to clarify the impact of inner assets on upper hand and execution in the firm (Armstrong and Shimizu, 2007). Penrose (1959) and Wernerfelt (1984) presented RBV as a gathering of assets and abilities that consolidated create skills (Rivard, Raymond, and Verreault, 2006). This hypothesis at that point created and defined by Barney (1991) to address the inquiry that have been posed so often in the associations field on for what reason do a few firms tenaciously beat others? (Barney and Arian, 2001). As indicated by the RBV of the firm, upper hand may just occur in circumstances of firm resources are in heterogeneity - which is also explained as the human resources diversity across firms (Popli, Ladkani, & Gaur, 2017). RBV theory suggested that human capital that serve as input and enable the firm to perform and organize such output, are valuable resources to the firm (Barney, 1991). This explains how this study is relying on the RBV to explain the relationship between human capital and organizational performance in the context of Saudi Arabia, as the accumulated knowledge and skills amongst the employees represent the valuable resources to the firm. Furthermore, Resources Dependence Theory RDT, is being increasingly used to determine factors affect innovation, such as process innovation, supplier innovation, and organizational innovation (Al-Lamy et al., 2018; Jajja, Kannan, Brah, & Hassan, 2017).

V. ORGANIZATIONAL INNOVATION

Whilst the concept of performance is multidimensional, research in the area of performance management has a tendency to focus solely on ascertaining suitable measures of innovation (Verweire & van den Berghe, 2004). Due to the multidimensionality of performance, defining organizational innovation has always been a challenging task. While performance can be defined in financial terms (market value, profitability, value-at risk), it is also a normal feature in other areas of the business, including operations (efficiency, effectiveness, number of outputs, throughput-time, product or organizational innovation), marketing (customer satisfaction, number of retained customers over a certain time), and so on (Verweire & van den Berghe, 2004). Nevertheless, in this study organizational innovation will be measured from two perspective which are process innovation and administrative innovation (De Vries, Bekkers, & Tummers, 2017).

As defined by Barney and Wright (1998), organizational innovation refers to the value created by an organization by employing its productive assets relative to the value expected to be attained by the organization's owners. Organizational performance is the result of organization creativity that requires hiring and recruiting highly potential employees as part of the company success drivers (N. Rashid, Jabar, Yahya, & Samer, 2015; Schiuma, 2012). Although hiring and recruiting are parts of the human capital responsibilities, but human capital responsibilities do not only include hiring, it provides training as part of the preparation for organization and individual's better future (Demartini & Paoloni, 2011). Thus, the success of a company is usually derived from the excellent resources, all the sizes of the organizations even the small one, can be analyzed from the strategic human capital management (Demartini & Paoloni, 2011).

There are various studies in organization management discussing resources that encourages the organization success, but this present study draws attention to human capital as the most important organization resources to the competitive advantage. To deal with the competitive advantage of the organizations, key person in organization will spend a substantial amount of effort to design their organizational needs from the human capital and achieve the best performance (Rompho & Siengthai, 2012). In regards with this, some studies have emphasized on the need for improving the workers knowledge and creating a learning culture in order to improve the innovation of organization (Dechawatanapaisal & Siengthai, 2006; Yongvanich & Guthrie, 2009). Likewise, competition among nations is getting more intense, according to Porter (1990), just like corporations nations are competing in all aspects to gain a competitive advantage. UAE leadership is striving to place the country as the pioneer in all fields including that of public sector innovation. In this study, organizational innovation will be measured through process innovation and administrative innovation. Both of these variable have been studied extensively and their measurement will be adapted from literature (Rompho & Siengthai, 2012).

Open associations have started to look for more noteworthy creative limit and use advancement to accomplish more elevated amounts of hierarchical execution as a result of its capability to improve the productivity, adequacy and responsiveness of government associations to society. Additionally, advancement can add to the recuperation of the authenticity of government establishments by better serving the necessities and goals of residents and clients of open administrations (Sucupira, Saab, Demo, & Bermejo, 2019)

VI. THE RELATIONSHIP BETWEEN HUMAN CAPITAL AND ORGANIZATIONAL INNOVATION

The correlation between human capital and authoritative development has been upheld by a few experimental confirmations. An investigation led by Gogan, Artene, Sarca, and Draghici (2016) steered an examination which was connected in four drinking water dissemination organizations in Romania to ponder the impact of human capital on hierarchical execution. The outcomes got from this examination demonstrated that there is a huge connection between the human capital and authoritative execution. What's more, a contextual analysis of open part colleges in southern Punjab-Pakistan, two colleges were in incorporated into this exploration in particular 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.

Another examination was directed by Telbani (2013), The investigation likewise discovered that the three parts of human capital (Knowledge, aptitudes, mentality) have critical positive association with development in Jawwal Company. Elective investigation was directed by Busaibe, Singh, and Ahmad (2017), who inspected the components impacting the hierarchical development inside the oil and gas industry in the United Arab Emirates (UAE). Results demonstrates that authoritative culture and hierarchical administration are drivers for the development in an association.

Another examination by Chang and Lee (2008) has demonstrated that outside condition and authoritative culture have noteworthy cooperation impacts with information aggregation capacity on hierarchical development. Then again, an examination was finished by Chen, Zheng, Yang, and Bai (2016) in China who research the powers driving hierarchical advancement, especially CEO transformational initiative. The discoveries delighted that both inner and outer social capital interceded the connection between transformational initiative and hierarchical advancement.

At last, an exploration was led by Sharabati, Jawad, and Bontis (2010), who experimentally test the connection between scholarly capital (human capital, auxiliary capital, social capital) and association execution inside the pharmaceutical segment in Jordan. The aftereffects of this examination have demonstrated that there is in reality solid and positive proof that pharmaceutical firms in Jordan are overseeing scholarly capital adequately and that thusly is impacting association execution decidedly.

This investigation fabricated the principle connection between human capital and hierarchical development as per the discoveries of past examinations. Futhermore, this examination of this investigation depends on the asset based view and asset reliance hypothesis. The system appeared in Figure.3 illustrates the effect of human capital (learning, abilities, and frame of mind) on organizational advancement..The relationship between human capital and organizational innovation has been supported by several empirical evidences. A study conducted by Gogan, Artene, Sarca, & Draghici (2016) piloted a study which was applied in four drinking water distribution companies in Romania to study the effect of human capital on organizational performance. The results obtained from this study showed that there is a significant relationship between the human capital and organizational performance. In addition, a case study of public sector universities in southern Punjab-Pakistan, two universities were included in this research namely Bahauddin Zakariya University Multan and Islamia University Multan. Results has also proven the impact of intellectual capital (human, structural, and relational) on the organizations performance.

Another study was conducted by Telbani (2013), The study also found that the three components of human capital (Knowledge, skills, attitude) have significant positive relationship with innovation in Jawwal Company. Alternative study was conducted by Busaibe, Singh, & Ahmad (2017), who examined the factors influencing the organizational innovation within the oil and gas industry in the United Arab Emirates (UAE). Results shows that organizational culture and organizational leadership are drivers for the innovation in an organization.

Another study by Chang & Lee (2008) has shown that external environment and organizational culture have significant interaction effects with knowledge accumulation capability on organizational innovation. On the other hand, a study was done by Chen, Zheng, Yang, & Bai (2016) in China who investigate the forces driving organizational innovation, particularly CEO transformational leadership.

The findings reveled that each internal and external social capital mediate the connection between transformational leadership and structure innovation. Finally, an enquiry was conducted by Sharabati, Jawad, & Bontis (2010), United Nations agency through empirical observation take a look at the connection between intellectual capital (human capital, structural capital, relative capital) and organization performance inside the pharmaceutical sector in Jordan. The results of this study have shown that there's really sturdy and positive proof that pharmaceutical companies in Jordan square measure managing intellectual capital effectively which successively is influencing organization performance completely. This study engineered the most relationship between human capital and organisational innovation per the findings of previous studies. Futhermore, this investigation of this study based mostly|is predicated|relies} on the resource based read and resource dependence theory. The framework shown in Figure.3 illustrates the effect of human capital (knowledge, skills, and attitude) on organizational innovation.

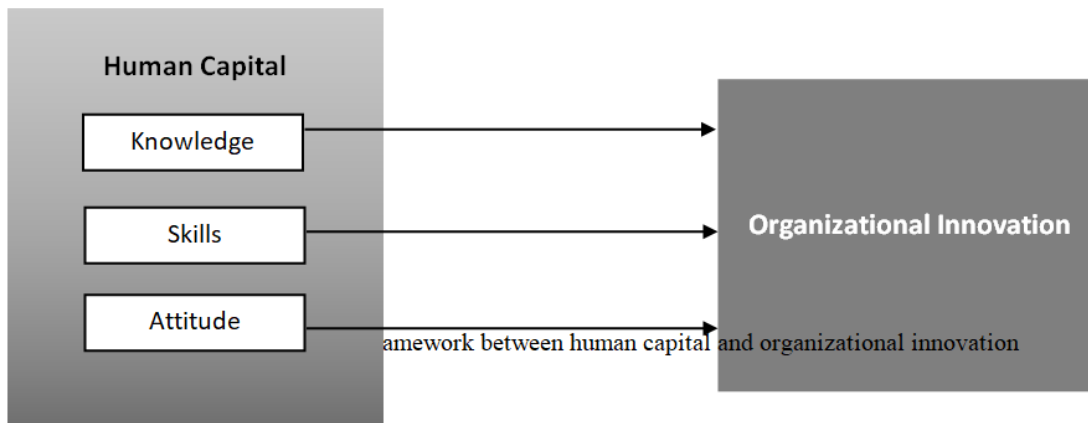


Figure.3: The conceptual framework between human capital and organizational innovation

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 H1: Human capital (knowledge) has a positive effect on organizational innovation among employees within Abu Dhabi government sector.

Hypothesis H2: Human capital (skills) has a positive effect on organizational innovation among employees within Abu Dhabi government sector.

Hypothesis H3: Human capital (attitude) has a positive effect on organizational innovation among employees within Abu Dhabi government sector.

VII. RESULTS AND ANALYSIS

Several methods are used for data collection for instance observation, questionnaire, interview, physical experiment and multimethods (Sekaran & Bougie, 2013). It is recognized that the most acceptable method of generating primary data is through surveys (Zikmund, Babin, Carr, &

Griffin, 2010). In this study, 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).

We attempt to examine how human capital influence and organizational innovation. The following analysis discuss the output of a multiple linear regression in the three main tables, assuming that no assumptions have been violated.

Model Summary of Multiple Linear Regression

This table provides the *R*, *R*², adjusted *R*², and the standard error of the estimate, which can be used to determine how well a regression model fits the data.

Table.1: Multiple regression model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.669 ^a	.448	.444	.41747

a. Predictors: (Constant), Knowledge, Skills, and Attitude.

The estimation of *R*, which it is a numerous connection coefficient. *R* can be viewed as one proportion of the nature of the forecast of the reliant factors; for this situation (learning, aptitudes, and frame of mind). An estimation of (*R* = 0.669) demonstrates an abnormal state of forecast in the model. As appeared in the model outline table, an estimation of (*R*² = 0.448) that the exogenous factors (knowledge skills, and attitude) all together clarify 44.80% of the changeability of the reliant variable (hierarchical

development), which is viewed as a noteworthy understanding rate that demonstrates an impressive degree of connection between the exogenous factors and organizational innovation in the model of the examination. The overall regression is good fit as shown in ANOVA Table 2 whereby the exogenous variables statistically significantly predict the endogenous variable, *F* (3, 381) = 102.667, giving Sig. = .0000

Table 2: ANOVA output

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	53.681	3	17.895	102.667	.000 ^b
Residual	66.403	380	.175		
Total	120.084	385			

a. Dependent Variable: Organizational innovation

b. Predictors: (Constant), Knowledge, Skills, and Attitude.

Regression coefficients

The general equation of the linear regression is used to predict the dependent variable (organizational innovation)

from the three multiple variables (knowledge, skills, and attitude) is:

$$\text{Organizational innovation} = 0.825 + (0.392 * \text{knowledge}) + (0.402 * \text{skills}) + (0.360 * \text{attitude}).$$

Table 3: Coefficients of multiple regression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.825	.190		4.270	.000
1 Knowledge	.392	.147	.362	2.635	.000
Skills	.402	.098	.276	2.035	.003
Attitude	.360	.043	.176	4.430	.000

a. Dependent Variable: Organizational innovation

Unstandardized coefficients (Beta) indicate how much the dependent variable (organizational innovation) varies with independent variables when all other independent variables are held constant. Where the p-value Sig. = (000, 0.003, 0.000) for knowledge, attitude, and skills respectively, these Sig. values indicate that for each term tests the null hypothesis that the coefficient is equal to zero (no effect). Therefore, the study accepts (H1), (H2), and (H3) all together and reject the null-hypothesis of each variable.

In other words, each of independent variable (knowledge, skills, and attitude) has (p-value < 0.05) is a meaningful addition to study model because any changes in the predictor's value are related to changes in the response dependent variable (organizational innovation).

Conversely, a larger (insignificant) p-value suggests that changes in the predictor are not associated with changes in the response. The Sig. column indicates that all independent variable coefficients (B) are statistically significantly (p-value < 0.05). Although the intercept (B0) is tested for statistical significance as well, but (B0) is rarely an important constant in the findings of the multiple linear regression analysis.

VIII. CONCLUSIONS

The influence of human capital on the degree of organizational innovation is important factor for the success of large organizations as well as those are 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. The outcome of this study revealed that, the skills and knowledge of human capital are one of the pillars of this vision is transforming the UAE into competitive knowledge economy (innovation, creativity, and financial services).

RECOMMENDATIONS

The author recommends the leaders in public organizations in UAE should focus on the factors associated with human capital in particular knowledge, skill, and attitude of employees. Moreover, it is highly recommended to test the moderation effect of transformational leadership on this

relationship in future studies to understand how the behavior of leaders support or weakening the impact of human capital on organizational innovation. An effective leadership style can promote awareness among employees of the organizations about collective interest while further assisting them to attain innovation properly.

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