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Explanation of the role of culture, leadership styles and organizational learning in strategic thinking

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Abstract

This research aims to assess the role of leadership (L), organizational culture (C) and organizational learning (OL) in the promotion of Strategic Thinking (ST). Its statistical population consisted of personnel of one of the executive companies active in the LNG phases of South Pars Economic and Energy Special Region located in the operational area of Tombak and Kangan (500 people in total). The studied samples included 217 people randomly selected using the Morgan Table, and the main tool of data gathering was questionnaire type. The research finding indicated significantly positive relationships between components of C and OL ($R= 0.37$), L and OL ($R= 0.53$), and OL and ST ($R= 0.66$), respectively. The path analysis results show a strong effect of L on ST through OL which explains for approximately 83% of the changes in ST. The effect of C on ST is considerable through OL and 65% of the changes in ST are explainable by C. Therefore, one can conclude that L and C in the said company facilitate the path of access to ST by affecting the OL process.

Keywords: Organizational Learning (OL), Leadership (L), Strategic Thinking (ST), Culture (C);

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1. Introduction

In our country, Iran, there is an increasing need for the effective application of intellectual capital due to the trend of privatization and the essence of getting ready for joining the World Trade Organization (WTO). For this reason, one of the key factors in the effectiveness of strategic management that needs more attention is the improvement of ST skills in managers [1]. On the other hand, organizational culture forms the basis of strategies in organizations [2]. Therefore, in order to create ST in an organization, it is necessary for culture to be an incentive of such actions [3]. Furthermore, ST is a creative and divergent process and relates to the vision designed by the organization's leaders. Thus, the managers' insights must go beyond the organizational routines with emphasis on long-term strategic intention for business or else ST will not be deployed thoroughly in the organizations [4]. In a 2005 study by Bonn, three elements of system thinking, creativity, and vision have been considered as the components of ST [5]. 1- System Thinking: the main origin of system thinking is change of attitudes [6]. 2- Creativity: creativity for the development of strategy means the ideas and development of new solutions for creating a competitive advantage [5]. 3- Vision: ST should originate from deep understanding of organizational intention and a vision for the desirable future of the organization as well [7]. Attention must be paid so that ST is rooted in school learning. In addition, different models have been raised for ST such as the P. J. Williamson [8], Jeanne Liedtka [9], and Gary Hamill [10] models which despite some differences among them have all somehow emphasized on learning as the basis and understanding of behavior and on its application for strategic orientation in organizations [11].

Furthermore, ST is a process of learning which needs to move forward continually and is not a temporary trend like a driver's, whose route would change in order to pass the barriers in a forward path [12]. These changes can include new competitors, market changes, and changes in socioeconomic factors or even intra-organizational factors.

Learning increases through the culture in which leaders actively investigate results and confer rewards [13]. Several studies have been done on the relationship between organizational culture and learning and other factors [14], [15], [16] though the former two variables were studied in limited experimental research [17]. The most important subject regarding OL is culture. Schein [18] mentioned that culture includes common presuppositions, values and knowledge which promote OL. Hoffman and Withers [19] and Schein [20] addressed the direct effect of culture on the quality of learning, the interpretation of others' behavior, and the determination of future behavior [13]. Therefore, it is expected that there would be a positive relationship between organizational culture and OL because leaders have a deep effect on organizational culture. Moreover, the relationship between learning and leadership is an important subject too [21]. Popper and Lipshitz [22] believe that leadership is a factor which has an effect on OL, so leadership can improve the process and the result of OL activities [23]. The role of leadership in the compilation of OL strategies originate from the function that organizational leaders have in forming substructures, processes and functions of OL.

Previous research shows that leadership styles and organizational culture affect the development of OL considerably and they encourage the personnel to learn better [24]. The skills of managers in the compilation and direction of organizational ST, as one of the important substructures, are required for effective management of organizational ST [25]. Based on a 2004 study by Fullan, environmental learning and thinking are not possible without the support of organizational leaders [26]. In addition, according to a 2010 model for learning presented by Casey and Goldman, organizational culture is one

of the factors which influence the ST cycle [27]. Since culture is regarded as a set of values and beliefs of the persons in the organizations, therefore, it plays an important role in forming their thinking.

This research has been embarked on with the aim of answering the following question: what is the relationship between learning styles, organizational culture, OL, and ST? Hence, we have gone about studying reviews of literature and then researching the relationship between these variables in an industrial company.

2. Framework of Study

2.1. Datasets

In this research, the three dimensional model presented by Pham and Swierczek [28] has been used in order to test OL. The aforesaid model includes knowledge acquisition, knowledge sharing, and knowledge utilization. To test culture, the model offered by Cameron and Quinn[29] has been utilized. In addition, the model presented by Bass and Avolio[30] has been used in order to measure leadership. This model considers two dimensions for leadership that are transformational and transactional. Furthermore, the Bonn model [31] has been used in order to measure ST; and it includes system thinking, creativity, and vision. Following are the five hypotheses that have been analyzed in this paper:

- Hypothesis 1: there is a positive and significant relationship between leadership and OL.
- Hypothesis 2: there is a positive and significant relationship between culture and OL.
- Hypothesis 3: there is a positive and significant relationship between leadership and ST.
- Hypothesis 4: there is a positive and significant relationship between culture and ST .
- Hypothesis 5: there is a positive and significant relationship between OL and ST.

With regard to the literature and the above-mentioned hypotheses, a research conceptual model can be introduced; as shown in figure 1.

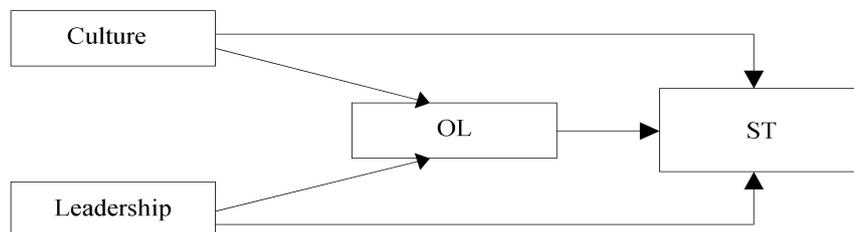


Figure 1. Research conceptual model

3. Methodology

This study is based upon a correlation method and has been carried out from April to July 2011. Furthermore, the research method used is of survey type capable of generalization.

1.1. Sampling method and respondents

The statistical population of this research included 500 personnel of one of the executive companies of LNG phases of South Pars Economic and Energy special Zone located in the operational region of Tombak and Kangan. The studied sample included 217 persons randomly selected using the Morgan Table.

1.2. Instruments and measures

The data of this research was raised through the distribution of a questionnaire with 66 questions. All of the items were measured using a five-point Likert-type scale that ranged from 1 (disagree strongly) to 5 (agree strongly).

From the 66 questions, item numbers 1- 24 measured organizational culture developed by Cameron and Quinn [29] Leadership styles were assessed using item nos. 25 - 39 adopted from the study by Chang and Lee [24] OL was measured using a twelve-item measurement (nos. 40 - 51) developed by Pham and Swierczek [28] and finally ST was measured through the last 15 items developed by the authors. The reliability, content validity and construct validity have been confirmed. The reliability of questionnaires was determined using Cronbach's alpha coefficients. Cronbach's alpha coefficient for 20 pre-examined questionnaires stood at 0.89 for culture, 0.85 for leadership, 0.91 for OL and 0.79 for ST. Due to the fact that all the reliability coefficients obtained stand above 0.7, it can be said that the available tool had an acceptable level of reliability.

4.Results

In order to study the validity of such a model, one should study the rate and level of significance of routes between each latent variable with its related observers. With regards to the same, confirmed factor analysis was used with the help of Lisrel software (version 8/50) in order to test this hypothesis that whether the observers who were considered for the introduction of the construct or the latent variables introduced themselves or not and that how accurately the selected observers introduced the latent variable. Results of this analysis have been given in table 1. Since parameters with values greater than 1.96 are statistically significant, the results of table 1 indicate that the observers used for the measurement of latent attributes in this research are acceptably conformable to factor structure and research substructure.

Reliability of the indices can be studied through R^2 multiple correlation square root. The R^2 value expresses the variance of each index which is determined by the latent variable. In addition, with respect to table 1, the indices of market culture, transformational leadership, application of knowledge and system thinking are the most reliable indices related to constructs of organizational culture, leadership, OL, and ST, respectively.

In order to test the research hypotheses and also the effect of construct coefficients on each other with their specific values, the significance in confidence level (of 99%) was tested using Lisrel software. The obtained results given in table 2 indicate that the predicted hypothetical relationships between the latent variables of the conceptual model have been acceptable.

Table 1 Standardized measurement coefficient and significance level of the confirmed factor analysis of the latent research variables

Latent Variable	Observer	Parameter Value (Standard Coefficient)	Standard Error	Statistic T Value (significance number)	R ² Value
Organizational Culture	Group	0.66	0.57	-	0.43
	Adhocracy	0.73	0.46	7.41	0.54
	hierarchical	0.74	0.46	7.43	0.54
	market	0.91	0.17	8.26	0.83
Leadership	Transformational	0.90	0.19	-	0.81
	transactional	0.84	0.29	11.98	0.70
OL	knowledge acquisition	0.89	0.21	-	0.79
	sharing knowledge	0.76	0.42	11.14	0.58
	utilization knowledge	0.94	0.12	14.13	0.88
ST	systemic thinking	0.92	0.15	-	0.85
	creativity	0.83	0.30	10.89	0.70
	vision	0.72	0.48	9.45	0.52

In order to study hypotheses 2 and 4, indirect routes were also calculated. According to the results, while organizational culture added up for about 65% for ST changes, leadership added up for 83% and OL for 66% of the same.

With regard to the coefficients in table 2, the equation relating to the effect of components of Organizational culture, Organizational leadership, and OL on ST is as follows:

$$ST = OL (0.66) + Leadership (0.83) + Culture (0.65)$$

Table 2- Coefficients of effect of constructs on each other with significance values

Route	Standard Coefficient	Total Effect	T Value	Result
Culture → OL	0.37	0.37	4.05	Supported
Leadership → OL	0.53	0.53	5.61	Supported
OL → ST	0.66	0.66	6.99	Supported
Culture → ST	0.41	0.65	4.40	Supported
Culture → OL → ST	(0.37)*(0.66)		(4.05)*(6.99)	
leadership → ST	0.48	0.83	5.08	Supported
Leadership → OL → ST	(0.53)*(0.66)		(5.61)*(6.99)	

Finally, in the third step, in order to know to what extent the model conformed to the data used, the total fitness of the model was assessed using fitness indices that included: Chi2/df=2.64, RMSEA=0.109, GFI=0.91, AGFI=0.86, NFI=0.96, NNFI=0.96, IFI=0.97, CFI=0.97, RFI=0.95 and RMR=0.03. As can be observed, most of the reported indices have acceptable values emphasizing on the total fitness of the model. Therefore, its safe to claim that the model has compatibility with the data used.

4. Discussion and Conclusion

In this research, the role of leadership and organizational culture were studied and analyzed as two effective factors on the OL process in order to promote ST. The obtained results indicate a positive effect of culture and leadership on OL as well as ST. A positive relationship between culture and OL indicate the importance of culture, innovation and teamwork encouragement in the acquisition, sharing and utilization of knowledge. This finding conforms to the results of research done by [24] , [32] , and [33].

Leadership had a positive effect on OL in the studied company as well. Therefore, managers should try to create and acquire knowledge and create motivation in the personnel. This finding on leadership is compatible with the results of research done by [23] , [32] , and [34] . The coefficient of route between OL and ST (0.66) highlights the importance of learning for the manifestation of ST among the persons in the organization. Providing facilities for acquiring knowledge, sharing and utilizing it in the organization can allow for an emergence of system thinking, creativity, and ideal vision in the people. A high route coefficient (direct and indirect sum) between organizational culture and ST (0.65) indicates a strong effect of culture on ST through OL. Therefore, for raising the level of ST, managers should seek to reinforce cultural fundamentals by encouraging work-groups, participation, and creativity. Work-group, flexibility and the creation of an atmosphere supporting innovation and knowledge sharing can increase OL. A lack of knowledge limits clear thinking. Therefore, challenging previous knowledge can remove barriers of access to new insight. Last but not the least, the important role of culture in ST was also confirmed in studies by [3] and [27]. Furthermore, the theoretical findings by [35] too confirm our results.

Coefficients of the route between components (Table 2) indicate that leadership plays a more essential role in ST in the studied company with regards to organizational culture. This can be due to the fact that the role of leaders in culture building is considerable. The main conclusion that can be derived from this result is that senior managers and organizational leaders are the ones who form culture.

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