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Identifying and Prioritizing the Influential Factors on the Organizational Change Capacity (Case Study: A Research and Training Center)

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Abstract

Purpose: The velocity of change in the surrounding world has forced them to identify those factors which impact their change capacity. The present study is conducted to identify and prioritize affective factors on organizational change capacity.

Methodology: In terms of purpose, this is applied research, while it is a descriptive survey-type in the data collection method. Its population includes ten experts familiar with research subjects in a research and training center.

Findings: By reviewing the literature on change capacity, relevant, influential factors were identified, and they were concurred by the fuzzy Delphi technique, and then, they were ranked. To this end, a pair comparison questionnaire was distributed among ten experts, and after gathering the questionnaires, affecting factors were ranked using the Expert Choice11 Software package and AHP technique. Results show that organizational culture, structure, and style of leadership were the main factors that impact change capacity.

Conclusion: The results showed the factors could be divided into three categories: environmental, content, and structural elements. Environmental factors include environment and innovation; content factors include team working, intellectual capital, leadership, political behavior, and human resource management; Structural elements include strategy, structure, organizational policies, information technology, knowledge management, and technology.

Value: This is the first time in the literature that the variables related to change capacity were categorized in a conceptual classification that has not been seen in previous research.

Keywords: Change capacity, Fuzzy Delphi, Analytical hierarchy process.

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Extended Abstract

Introduction

Organizational change capacity is a concept highly paid attention by organizational researchers in recent years. To achieve the main purposes of our research and training center, we need to establish an innovative culture, empower our employees and organize the organic structure for taking competitive advantage in turbulent environments. Therefore, we must highly pay attention to the capacity of change in this center. To measure change capacity in an organization, one should evaluate its dimensions and elements the organization. According to relevant literature, one can refer to Soparnot's model (2011), Judge (2005), and Meyer and Stensaker (2006). In the field of change capacity, our selected model in the present study to measure organizational change capacity is Judge's eight-element model of organizational change capacity (2005), and his proposed standard questionnaire (Judge & Elenkov, 2005) is used. This model was selected for its comprehensiveness in dimensions and the number of references in the literature.

Purpose

The velocity of change in the surrounding world has forced them to identify those factors which impact their change capacity. The present study is conducted to identify and prioritize affective factors on organizational change capacity.

Methodology

In terms of purpose, this is an applied research. It is attempted here to identify and prioritize affecting factors on organizational change capacity by library studies. In terms of data collection, this research is a descriptive survey. To increase the validity and to determine the indicators to measure identified dimensions, the fuzzy Delphi technique is used. The research population consists of researchers, experts, and scholars familiar with research titles in the organizational change management field. Here, the sampling method was not random and probable. Studied samples were selected in a non-probable and judgmental way. It means that relevant scholars and experts are considered as the research population. To identify influential factors on change capacity, theoretical literature was reviewed. Likewise, to identify and validate recognized factors, questionnaires were used in the fuzzy Delphi section.

Delphi panel members include ten experts considered proper by the researcher to participate in this study. These people possessed one or more below features:

(a) Faculty members familiar with intellectual capital, knowledge management, change capacity, and entrepreneurship,

(b) Publishing scientific articles, books, and other scientific works related to intangible assets, predominantly intellectual capital, knowledge management, change capacity, and entrepreneurship,

(c) Experts and authors in discussion on intellectual capital, knowledge management, change capacity, and entrepreneurship.

Findings

The research questionnaire in the present study was designed to acquire experts' opinions on their agreement with identified dimensions; therefore, experts had

expressed their understanding through verbal variables as very low, low, medium, high, and very high.

Upon identifying organizational changes capacity criteria, the experts' questionnaire was designed in the next step. It included 34 paired comparisons, and experts were asked to point 1-9 scores to these comparisons. Ten questionnaires were distributed among experts, and according to the achieved data, they were ranked.

After completing the questionnaires, relevant data was analyzed by the Expert Choice 11 software package so that paired comparison matrices were inserted into the software individually, and then the matrix incompatibility rate for each one was computed. The software produced an integrated matrix, and three main criteria, and 14 sub-criteria were provided in an integrated manner by their weights ,as seen in below graph and tables.

Table 1 indicates the summary of weights, ranking of main criteria, their relevant sub-criteria, as well as the weights and ranking of sub-criteria in an integrated manner.

Table 1. A summary of weights and ranking of main criteria and their relevant sub-criteria as well as weights and ranking sub-criteria in an integrated manner

Criteria	Weight of criteria	Criteria rate	Sub-criteria	Sub-criteria weight in relevant criteria	Sub-criteria rate in relevant criteria	Sub-criteria final weight	Sub-criteria final rate
Environmental	0.468	1	Environment	0.473	2	0.221	2
			Innovation	0.527	1	0.26	1
Structural	0.311	2	strategy	0.380	1	0.118	3
			Structure	0.164	3	0.051	7
			Organizational policies	0.172	2	0.053	6
			IT	0.139	4	0.040	8
			KM	0.051	6	0.015	12
			Technology	0.102	5	0.031	10
Content	0.221	3	Culture	0.154	3	0.034	9
			Team working	0.058	5	0.012	13
			Intellectual capital	0.072	4	0.015	11
			Leadership	0.437	1	0.096	4
			Political behavior	0.037	6	0.0081	14
			HR management	0.242	2	0.053	5

Table 2 indicates the main influential factors on the capacity of organizational change and their ranking based on the factor importance from the highest impact to the lowest.

Table 2. Final ranking of influential factors on change capacity

Row	Effective factors	Total weight of each factor
1	Innovation	0.247
2	Environment	0.221
3	Strategy	0.118
4	Leadership	0.097
5	HR management	0.097

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6	Policies	0.053
7	Structure	0.051
8	IT	0.040
9	Culture	0.034
10	Technology	0.032
11	Intellectual capital	0.016
12	KM	0.016
13	Team working	0.013
14	Political behavior	0.008

For prioritizing these variables, the AHP technique was used. According to the Results (table 1), environmental factors with a weight of 0.468 have the most impact on the capacity for organizational change. The second place in the variables' ranking belongs to structural factors with a weight of 0.311, and finally, the third category with a weight of 0.221 is the content factor.

Conclusion

By reviewing the literature, the factors affecting the change capacity were identified. Then these factors were distributed among the experts through the Delphi questionnaire in 3 rounds. During these rounds, three dimensions were added to the total dimensions, and after the analysis using the fuzzy Delphi method, two dimensions with a discrepancy rate of less than ./1 were deleted. Finally, the theoretical consensus among the expert's panel was obtained, and 14 factors were identified as definitive factors affecting the capacity of change in the university. In the next step, the hieracherhical analysis method was used to prioritize these factors.

Value

This is the first time in the literature that the influential variables affecting the change capacity were recognized and categorized in a conceptual classification that has not been seen in the previous researches.

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