Investigating the impacts of employees' psychological empowerment on factors affecting organizational change among the Medical Sciences Universities of Khorsan Razavi province

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Abstract

Introduction: Nowadays, business markets are dynamic and unpredictable and they require organizations that repeatedly implement and follow change. So, the present study aims to investigate the effect of employees' psychological empowerment on factors affecting the organizational change of Khorasan Razavi University of Medical Sciences and to present an appropriate model.
Materials and Methods: This research was a correlation research and had a survey-exploratory method. The statistical population of the study were all managers and employees (formal, temporary to permanent and contractual) of the staff of Khorasan Razavi University of Medical Sciences in 2009 from which 291 people were selected as a sample by the availability sampling method. The tool was a questionnaire that the researcher has designed and compiled based on the experts' ideas and its validity and reliability have been confirmed. Data analysis was also performed by Bartlett's test of sphericity and correlation matrix and factor analysis.
Results: Findings show that psychological empowerment and each of its components such as competence, autonomy, effectiveness and meaningfulness of the job, has a positive and significant effect on the factors affecting organizational change.
Conclusion: According to the research findings, it can be concluded that before any action in organizational change, managers and policy makers should consider the capabilities of familiarity and employees' psychological with the category of change; Because implementers of these changes will be employees in the organization and if they show psychological resistance to change, the change program leads to failure or would be difficult to implement.

Keywords: Psychological empowerment, Organizational change, University of Medical Sciences, Structural equation

Introduction

In present, most organizations find that change is a real challenge. The change process is unique and different in any organization because of the differences in the organization nature, the job nature, values and work culture, management and leadership style, as well as employees' behavior and attitude (1). Successful and dynamic reaction of any organization in global competition and changes requires change in organizational activities, but it is always possible that change leads to confusion and have not a good effect on the feelings and abilities of employees (2).

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Linstone and Mitrof find that three personal, organizational and technological perspectives are affective in the implementation of change processes and consider personal as the most difficult and important factor. For example, attitudes are difficult to change, because people are generally more comfortable with what they have learned and prefer to maintain the status quo due to fear of possible threats and intolerance of ambiguity (3). Organizational change causes employees to shift their orientation towards doing something or an attitude that they believe in and try to achieve their individual and organizational goals by doing it (4). Therefore, the beliefs, perceptions and attitudes of employees are very important points in organizational change. Otherwise, organizational change is a stressful experience for most employees (5). In fact, be said that another reason for not successful implementation of change in organizations is the existence of many problems in this way. Of the most important problems are employees' resistance to change, different opinions and expectations of employees, various conflicts among employees and the not sufficient motivation to accept change (6). In this regard, perhaps preparing employees intellectually and psychologically in organizations to understand the change conditions and accept change in the organization at first and then empower them psychologically during the change process to manage and effectively implement of process can be effective in successful and stable organizational changes on the one hand and also to reduce organizational damage in times of crisis in the organization (7). Psychological characteristics mean releasing the inner forces of individuals to achieve amazing achievements as well as providing a platform and creating opportunities for the flourishing talents, abilities and competencies of individuals for which the four dimensions mentioned including meaningful feeling, worthy feeling, feeling have right to choose and feeling to be effective (8). In fact, psychological factors cause differences in perceptions of the value of change and the effectiveness of change, leading to different levels of commitment to change and preparedness for change (9). Sepahvand and Farhikhteh (2019) have conducted a study entitled "The effect of employee personality traits on resistance to organizational change with the mediating role of psychological contract". The results showed that personality traits affect employees' resistance against change and psychological contract (10). Sani et al. (2015) conducted a study entitled "The effect of psychological empowerment and psychological capital on individual readiness for change of employees of the Ministry of Sports and Youth" and concluded that the development of psychological empowerment and psychological capital can play an important role in staff readiness to accept changes (11). Mufidah and Mangundjaya (2018) conducted a research on employees of financial institutions in Indonesia found that improving psychological empowerment and psychological capital increases employees' commitment to change (12). Bagus et al. (2017) conducted a study entitled "The relationship between self-efficacy and readiness for change with the mediating role of employee empowerment". The results showed that there is a significant relationship between self-efficacy and empowerment with employees' readiness to accept change and empowerment mediated the relationship between these two variables (13). As a result, the question arises as to how to provide a desirable model to examine the impact of employees' psychological empowerment on the factors affecting organizational change?

Materials and Methods

In present study, first the dimensions of psychological empowerment and

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organizational change were studied by library studies and then, the dimensions and hidden components of the studied phenomenon were discovered using the qualitative method and the theoretical model was completed. After examining the field using Delphi method, the dimensions and components studied were identified and a structural model was designed. Finally, in the quantitative part, the questionnaire questions were designed, the current situation was examined and the designed model was tested. Therefore, in terms of data type, the present study is both qualitative and quantitative methods and due to the sequence of qualitative and quantitative methods, its method is a sequential mix. In the qualitative part, the statistical population of present research is experts and elites in the field of management and managers with experience in the administrative system that using purposive sampling method, 15 experts from the statistical population were identified and were semi-structured interviewed with them. In the quantitatively part, the statistical population of present research is all the managers and staff (formal, temporary to permanent and contractual) of the Khorasan Razavi University of Medical Sciences staffs who are currently employed and have at least a university degree with five years experienced. Based on this and according to the statistics and information received from the General Recruitment Office in 2019, 1200 people were employed who had the above conditions. The number of statistical samples was calculated using Cochran's formula of 291 people and to collect data, simple stratified random sampling method was used. To determine the validity and reliability of the questions, the content validity method and the agreement coefficient method were used, respectively.

In order to determine the validity of the questionnaire, the confirmatory factor analysis (CFA) method was used with the help of Amos software. But before factor analysis, you must first make sure that the available data can be used for analysis. In other words, is the amount of data appropriate for factor analysis? For this purpose, KMO index and Bartlett test are used. The KMO index is an indicator of the adequacy of sampling. This index is in the range of zero to one. If the value of the index is close to one, the data are suitable for factor analysis, otherwise (usually less than 0.5) the results of factor analysis are not very suitable for the data. Considering that the standard value of KMO for all dimensions is more than 0.5, and the significance value of Bartlett test is less than 0.05, based on this, it is possible to ensure that the sample size is suitable for confirmatory factor analysis (Table 1). After confirmatory factor analysis, considering that the factor load of all items is above 0.4 and their significance level is less than 0.05, so it can be said that the designed questionnaire has good validity (Table 2). Also, after distributing the researcher-made questionnaire to 30 people in the community in order to determine the reliability of the questionnaire, the internal consistency of the components of each of the main dimensions was examined by Cronbach's alpha method with the help of SPSS software, which was about 0.8. It showed high reliability of dimensions and components in the research model. After confirming the reliability and validity, a questionnaire consisting of 35 questions on a five-point Likert scale was used and the data obtained from the items related to the model variables, including psychological empowerment with dimensions of competence, autonomy, effectiveness and significance of the job and Organizational change has been studied with the factors of attitude towards change, sense of ownership, organizational commitment, transformational leadership and organizational justice. SPSS software was used for descriptive statistics and calculation

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of the reliability of the questionnaire. Also, to test the research hypotheses, structural equation modeling technique and Amos software have been used.

Results

In this section, the KMO index and Bartlett test was used to ensure that the appropriateness of the number of required data for the confirmatory factor analysis. The results are shown in Table 1. According to the results in Table 1, the KMO standard value for all dimensions and variables is more than 0.5, and the significance value of Bartlett test is less than 0.05, ensuring the appropriateness of the sample size for factor analysis.

Table 1. Results of Bartlett test and KMO index for research variables and dimensions.

Variables	KMO Indicator	Bartlett test
Psychological empowerment	0.891	0.000
Competence	0.796	0.000
Autonomy	0.814	0.000
Effectiveness	0.675	0.000
Job significance	0.669	0.000
Factors affected organizational change	0.807	0.000

Also, the method of confirmatory factor analysis was used to confirm the validity of the questionnaire. The results are given in Table 2. According to results, the factor load of all items was significant in the fitted factor analysis model. Therefore, none of the items were excluded from the analysis process. The significance base of the items is their level of significance below 0.05 and the factor load of all items is above 0.4. Therefore, 35 items of the questionnaire were finally analyzed. The reliability of the questionnaire was assessed using Cronbach's alpha method after confirming the validity. Considering that this value is above 0.7 for all variables and its dimensions (Competence 0.860, Autonomy 0.712, Effectiveness 0.774, Job Significance 0.825, Attitude towards change 0.832, Organizational Commitment 0.745, transformational leadership 0.904, A sense of ownership 0.805, Organizational Justice 0.832), it can be said that the tool has good reliability. The following structural equation model was obtained after ensuring the validity and reliability of the research tool by analyzing the questionnaire data. According to the structural models, Table 3 examines the path coefficient between psychological empowerment and each of its components and the factors affecting organizational change. In all hypotheses, the path coefficient is positive and the partial index value is equal to 0.000, which is less than the significance level of 0.05. Moreover, the significance number outside the range is 1.96. It can be concluded that this path coefficient is significant at the error level of 0.05. Psychological empowerment and each of its components have a significant effect on the factors affecting the organizational change. Figure 2 shows the path analysis pattern obtained from the research variables, the relationships between the variables, direct and indirect paths, and a significant value. Finally, the final presented model was as follows.

Discussion

The research investigated the effect of psychological empowerment of employees on the effective factors in organizational change of Khorasan Razavi University of Medical Sciences to present a desirable model. Generally, the research results showed that psychological empowerment of employees has a positive and significant effect on the factors affecting organizational change.

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Table 2. Results of Confirmatory Factor Analysis (CFA) for questionnaire items.

Variables	Dimensions'	Item	Load Factor	Statistics t	Significant	Outcome
Psychological empowerment	Competence	q1	0.760	14.826	0.001	Significant
		q2	0.809	6.503	0.001	Significant
		q3	0.747	5.011	0.001	Significant
		q4	0.795	4.668	0.001	Significant
	Autonomy	q5	0.698	7.952	0.001	Significant
		q6	0.630	5.497	0.001	Significant
		q7	0.681	2.551	0.001	Significant
		q8	0.662	8.679	0.001	Significant
	Effectiveness	q9	0.825	3.392	0.001	Significant
		q10	0.725	7.393	0.001	Significant
	Job significance	q11	0.812	17.745	0.001	Significant
		q12	0.821	11.883	0.001	Significant
		q13	0.721	15.922	0.001	Significant
		q14	0.546	12.739	0.001	Significant
		q15	0.691	19.192	0.001	Significant
Factors affected to organizational change	Attitude to change	q16	0.775	6.258	0.001	Significant
		q17	0.786	8.395	0.001	Significant
		q18	0.633	7.705	0.001	Significant
		q19	0.758	2.739	0.001	Significant
	Organizational commitment	q20	0.672	5.105	0.001	Significant
		q21	0.786	4.645	0.001	Significant
		q22	0.779	2.480	0.001	Significant
		q23	0.707	12.015	0.001	Significant
		q24	0.656	4.016	0.001	Significant
	Transformational leadership	q25	0.769	5.916	0.001	Significant
		q26	0.831	15.231	0.001	Significant
		q27	0.801	10.502	0.001	Significant
		q28	0.659	13.709	0.001	Significant
	A sense of ownership	q29	0.782	12.931	0.001	Significant
		q30	0.746	18.279	0.001	Significant
		q31	0.659	8.655	0.001	Significant
		q32	0.550	11.328	0.001	Significant
	Organizational justice	q33	0.795	12.055	0.001	Significant
		q34	0.709	2.415	0.001	Significant
		q35	0.892	6.068	0.001	Significant

This shows that psychological empowerment encourages employees to perform their duties better to see the job more meaningful and ensure that they can positively affect organizational outcomes through job duties, including organizational change (14). Confirmation of this hypothesis means that empowered employees provide more new ideas than other employees, adapt to conditions of uncertainty better than others, and have a greater ability to overcome problems. These employees are more active than other employees. This means that psychological empowerment provides the ground for acceptance of change by employees (15). The results also showed that competency has a positive and significant effect on the factors affecting organizational change. In other words, when people become empowered, they feel competent, or that they feel they have the ability and skill to do a job successfully (8). Another result of this research is the positive and significant effect of autonomy in employees on the factors affecting organizational change.

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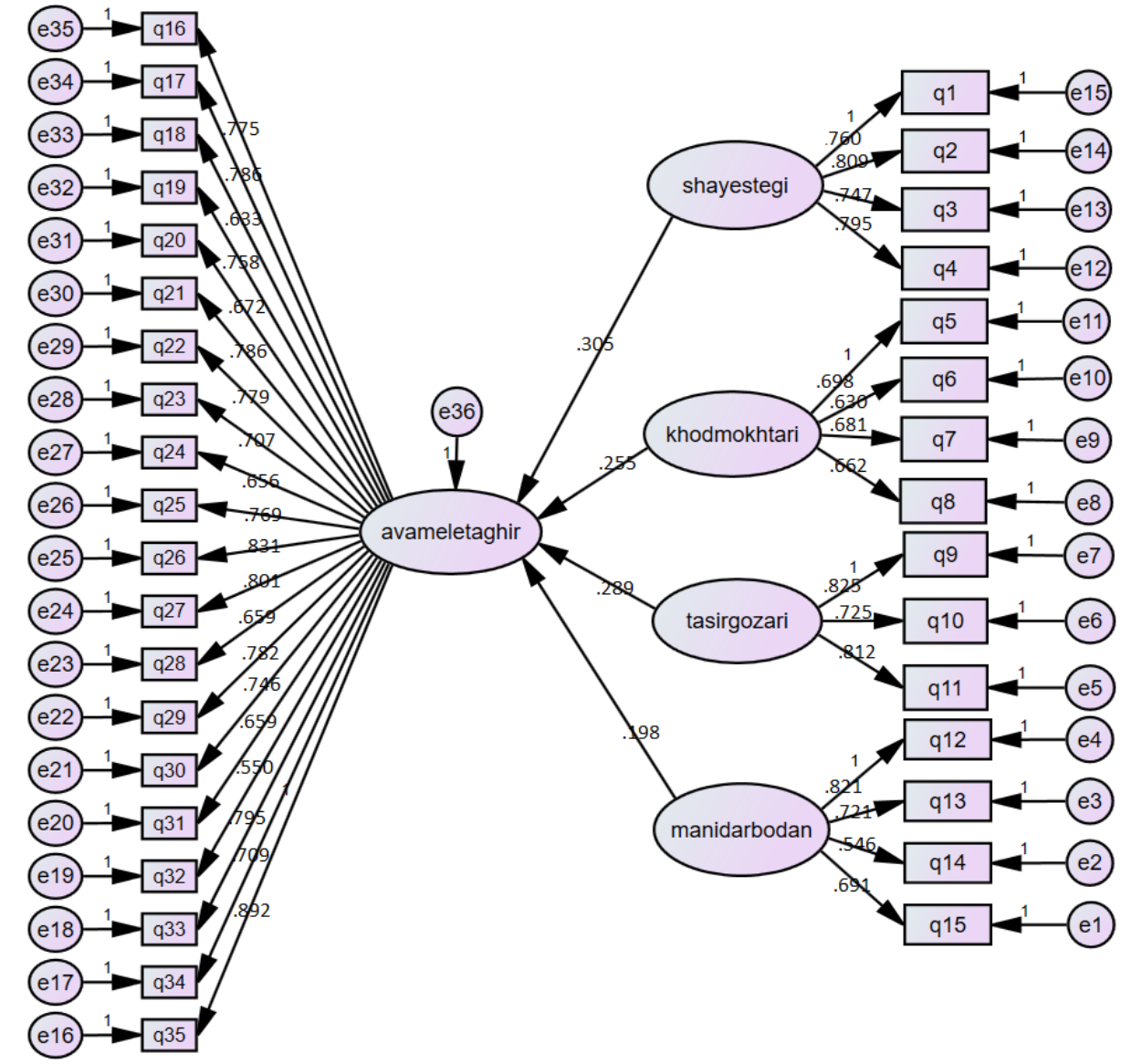

Figure 1. Path coefficient diagram and research factor load.

Table 3. Regression coefficient and significance of the relationship between each of the components of psychological empowerment and factors affecting organizational change.

Hypothesis	Direct path	Path coefficient	P value	Significant number	Outcome
1	Psychological empowerment ➔Factors affecting organizational change	0.452	0.004	4.987	Significant
2	Competence ➔ Factors affecting organizational change	0.305	0.004	3.425	Significant
3	Autonomy ➔ Factors affecting organizational change	0.255	0.035	2.117	Significant
4	Effectiveness ➔Factors affecting organizational change	0.289	0.021	3.369	Significant
5	Job significance ➔Factors affecting organizational change	0.198	0.018	2.303	Significant

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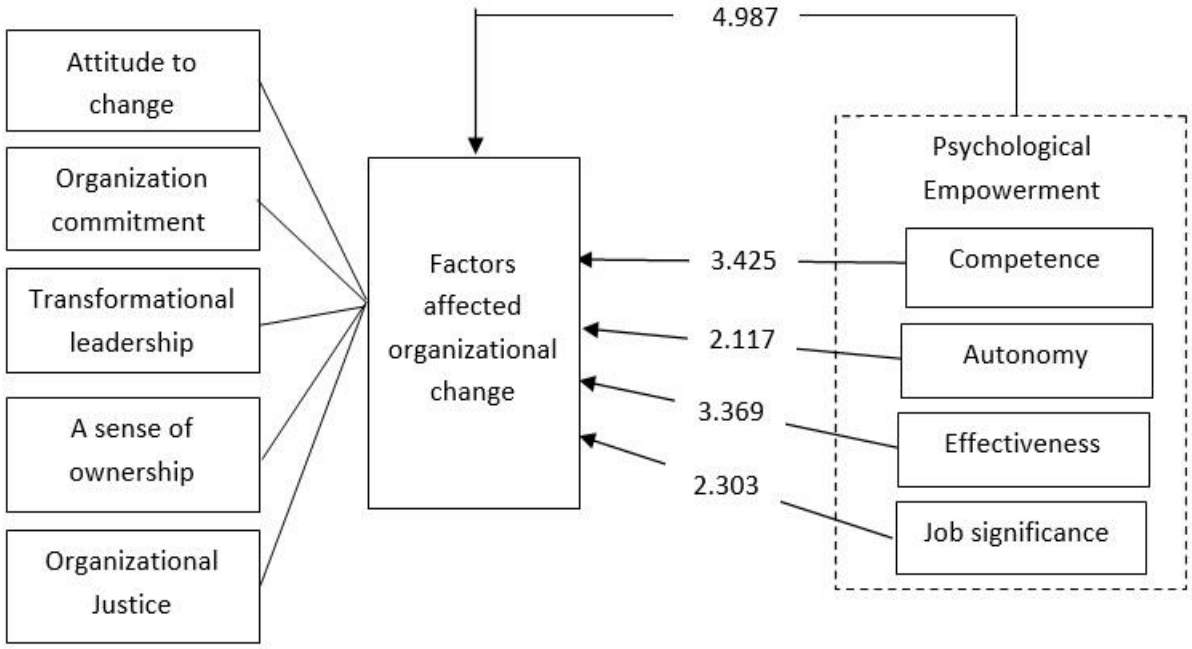

Figure 2. Final model of the research and path analysis pattern.

This causes the experience of the sense of choice at the beginning of activities and systematization of personal activities, as well as a sense of freedom of action and experience of the right to choose. All of these make employees to deal with organizational issues and change programs fairer, consider the organization as their own, easily accept the changes that will occur in the organization and will benefit the organization (16). The research results showed that the effectiveness of employees has a positive and significant effect on the factors affecting organizational change. This shows that empowered people believe in making change by affecting the environment in which they work or the results that are achieved. Empowered people do not believe that the barriers of the external environment control their activities, but they believe that barriers can be controlled (17). The research results indicated that the significance of employees' jobs has a positive and significant effect on the factors affecting organizational change. This shows that the people feel a sense of belonging to the organization and will be more committed and welcome the new ideas put forward in the organization (11). Explaining the above results, it can be stated that managers and policy makers should be familiar with the factors that can affect them both inside and outside their organization and cause change in the organization before any action in the field of organizational change. Accordingly, this research has carefully tried to detect the organizational change factors, which can provide a good platform for identifying those involved with the category of organizational change (18). Any research encounters some limitations. Given that this research has been conducted on the employees of Khorasan Razavi University of Medical Sciences. Therefore, caution should be considered in extending the results to other employees and universities.

It is recommended to create research groups and teams to identify and prioritize the needs. Therefore, they can develop a separate program and provide it to managers to meet each need, and affect their attitudes toward

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the organization and its management in consultation with managers, which is considered a factor of change within the organization. They level of familiarity and ability of employees with the category of change should be considered before starting to apply change in the organization because employees will implement these changes in the organization. If they show psychological resistance to change, the change program is doomed to failure or at least will get into trouble.

Conclusion

Employee psychological empowerment has a positive and significant effect on the factors affecting organizational change and should be considered before any action in the field of organizational change.

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Conflict of interests

There is no conflict of interests to declare.

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