

Analyzing the Effect of Dynamic Organizational Capabilities (Organizational Learning) and Knowledge Management in Achieving the Objectives of Health Reform Plan

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Abstract

Paying attention to the dynamic capabilities of the organization to manage environmental changes is one of the most important factors in turbulent environments. The aim of this study is to analyze organizational capabilities (organizational learning) and knowledge management and its effect on the aspects of the health reform plan. The research method is a descriptive survey. The research instrument is a five-item Likert questionnaire. Sample consists of 210 managers and employees involved in the health reform plan in the hospitals of Isfahan University of Medical Sciences in 2016, who were selected by simple random sampling. In this study, Cronbach's alpha for organizational capabilities, knowledge management, and health reform plan were 0.824, 0.886, and 0.923 respectively. PLS results showed that the calculated is greater than 2, so it represents the significance of the effect of dynamic organizational capabilities and knowledge management on health reform plan. Dynamic organizational capabilities variable affected 34 percent variable directly and also affected 32 percent of knowledge management indirectly through mediator variable. Generally, dynamic organizational capabilities variable stands for 65 percent of the objectives variable changes. 78 percent of the changes of knowledge management variable are explained under the influence of this variable and about 42 percent of the objectives are explained through knowledge management.

Keywords: Dynamic Organizational Capabilities, Knowledge Management, Health Reform Plan, Organizational Effectiveness, Competitive Advantage

Introduction:

In today's world, organizations are faced with a high turbulent environment in which high levels of environmental turbulence could paralyze organization's operations. In fact, the output of the organization's performance in these environments is largely depending on the ability of the organization to manage changes and on its flexibility. Dynamic capabilities are defined as "the ability of an organization in combining, building, and reconfiguring internal and external competences in order to rein in rapidly changing environments" [9]. Today we are witnessing the rapid expansion and increase of the penetration of information technology in organizations. In addition to direct effects on organizational performance, organizational capabilities can also affect it indirectly. Its indirect effects are applied through competitive advantage. In other words, the organizational capability in general and dynamic organizational capability in particular can affect the organization's competitive advantage and improve organization performance through its identity. Organizational capabilities can predict knowledge management effectiveness. Through influencing organizational capabilities and operational capability of an organization, information technology infrastructures can affect an organization's performance. Dynamic organizational capabilities are related to the organization's strategic abilities, while the organizational operational capability is related to the operational abilities of the organization to carry out value chain activities. So, performance of the organization is affected by information technology infrastructure with dual capabilities. The level of dynamic organizational capability is evaluated through variables such as; responsibility for market, organizational learning, coordination and organizational integration, while, levels of organizational operational capability is evaluated through triple criteria of cost utility, speed utility, and utility of accuracy in carrying out the organization's value chain activities.

Theoretical definition of dynamic organizational capability

Continuous behavioral orientation of a company in integration, reshaping, modernization, and recreation of its resources and capabilities (and, above all, upgrade and restructure its core capabilities) in order to response to the changing environments and to gain and maintain competitive advantage[10]. Operational definition of dynamic organizational capabilities: dynamic capability of an organization is measured through multiple variables such as; responsibility for market, organizational learning, coordination and integration[6]. The organizational capabilities - especially in this research – is a set of stable learned patterns of collective action, through which an organization will be able to create and modify its operational processes systematically in order to improve the effectiveness of its activities[11]. We will investigate the effects of organizational capabilities and knowledge management on the objectives of health reform plan through focusing on the aspects of them in this research. So, the main purpose of this study is to analyze the effects of organizational capabilities and knowledge management on the objectives of the of health reform plan.

Background and theoretical framework of this research

1. Organizational capabilities (organizational learning): Today organizations for being survived and to align with the changing environment, especially with regard to globalization issues, have to restructure or be equipped with the tools to be able to cope with global changes. Creating and institutionalization of organizational learning is one of the most important tools in organizational capabilities[5]. The concept of organizational learning dates back to 1900, when Taylor posed the issue of learning transfer from one person to other staffs in order to increase organization's efficiency and improvement [1]. Quoting Dybla et al, Nadi et al has defined organizational learning as the capacity or processes within an organization to maintain or improve the performance based on experience. This process involves the acquisition of knowledge (creation and development of skills, insights, and interpretations), knowledge sharing (dissemination of the acquired knowledge to the others), and the use of knowledge (knowledge integration in such a way that it can be absorbed, widely available, and be applicable to the new conditions) [2]. Organizational learning is the most important way to improve long term performance. In the near future, only those organizations can claim superiority which exploits capabilities, commitment,

and people's capacity to learn effectively at all levels of the organization. In organizational learning, through diagnosing and correction of errors and their causes, organization members take lessons for the future and will be prepared to deal with changes and probable events [7].

2. Knowledge management. Today, knowledge management has become one of the most important issues of the organization, while most of the activities carried out in this area have failed. We must identify and evaluate the organizational capabilities required for these efforts, in order to understand the success or failure of knowledge management in the organization. According to the literature, organizational capabilities can predict the effectiveness of knowledge management. However, empirical tests have not been conducted in this area. Aforementioned capabilities in this paper include organizational capabilities (responsibility for marketing, organizational learning, coordination, and integration) and knowledge process capabilities (knowledge acquisition, knowledge transfer, knowledge application, and knowledge retention). Organizational learning increases an organization's ability in acquiring and development of new knowledge and knowledge management focuses on how to organize and apply that knowledge to improve the performance. Organizational learning and knowledge management in today's complex and rapidly changing environments are of a vital role and their importance with regard to the staffs have a key role in the organization's performance. Without appropriate technical and human infrastructure, no organizational capability will be create. So, organizational capability is involved in the management of technical and human resources [4].

Research Hypotheses

Dynamic organizational capabilities affect health reform plan objectives directly.

Dynamic organizational capabilities affect health reform plan objectives indirectly through the mediator variable of knowledge management.

Dynamic organizational capabilities affect knowledge management significantly.

Knowledge management affects health reform plan objectives significantly.

The aims of the study

The aim of this study is to find the scientific relationship between the variables of dynamic organizational capabilities and also to find scientific relationships between dynamic organizational capabilities and knowledge management and analysis of relationships and finally the effects of these capabilities on achieving the objectives of health reform plan.

Detailed objectives

1. Analyzing dynamic organizational capabilities in achieving the objectives of health reform plan
2. Analyzing operational organizational capabilities in achieving the objectives of health reform plan
3. Analyzing the effect of information technology infrastructures on dynamic organizational capability and the acceleration of the objectives of health reform plan
4. Analyzing the effect of flexibility of information technology infrastructure on operational organizational capability and the acceleration of the objectives of health reform plan
5. Analyzing the effect of dynamic organizational capability on the organization's competitive advantage and the acceleration of the objectives of health reform plan
6. Analyzing the effect of operational organizational capability on the organization's financial performance and the acceleration of the objectives of health reform plan

The data collection instrument

In this research, the study of scientific secondary sources (such as scientific papers, books, and doctoral dissertations) has been used, while the original data was collected by questionnaire.

Validity and reliability of the questionnaire

The face validity, content validity, and construct validity were used in order to measure the validity of the questionnaire. Cronbach's alpha coefficient was used in order to determine the reliability of the questionnaire. The population of this research is consist of those managers and nurses working in the University and the hospitals.

Summary and Conclusion

This research is applied and developmental in terms of objectives and it is a data, descriptive, survey, field and correlational research in nature. All the variables were qualitative and five-part Likert scale attitude continuum was used in order to evaluate them. Also, the required information is collected through various questionnaires. The questionnaires measure dynamic organizational capabilities of knowledge management and the health reform plan. A variety of descriptive and inferential statistical methods have been used in order to analyze the collected data. The calculations have been done with the help of software spss20 and smart pls2,0.

The theoretical framework of the study

Through influencing organizational capabilities and operational organizational capabilities, information technology infrastructures can affect the organization's performance. Dynamic organizational capabilities are related to the organization's strategic abilities, while the operational capability of an organization is related to operational organizational abilities in carrying out the value chain activities. So, performance of the organization is affected by information technology infrastructure with dual capabilities. The level of dynamic organizational capability is evaluated through variables such as; responsibility for market, organizational learning, coordination and organizational integration, while, levels of organizational operational capability is evaluated through triple criteria of cost utility, speed utility, and utility of accuracy in carrying out the organization's value chain activities. The components of the organization's value chain include the activity section which has been adapted from nine classification of Porter (1985). In addition to direct effects on organizational performance, organizational capability can also affect it indirectly. Its indirect effects are applied through competitive advantage. In other words, the organizational capability in general and dynamic organizational capability in particular can affect the organization's competitive advantage and improve organization performance through its identity[8].

Methodology

Factor analysis, KMO index, and Bartlett's test

Before using factor analysis (for the factor loading of the questionnaire items), the extent of KMO index and their relative Bartlett's statistics was calculated in order to determine whether we can make use of factor analysis or not? Through investigating partial correlation between the variables, the KMO index examines the adequacy of sampling and it determines whether the variance of the research variables is affected by the common variance of some basic covert factors or not? KMO index value is changing between zero and one and if the value is higher than 0.6 KMO factor analysis can be used. Accordingly, the KMO value of author made questionnaire is 0.654. Since the value of this index is higher than 0.6, factor analysis can be used. Another index is provided by Bartlett's test. Bartlett's test investigates whether the correlation matrix between the variables is the identity matrix or not? Because in the case of positive answer, variables will not be related significantly, so, it is not possible to identify new factors according to the correlation between them. If the significance level of Bartlett's test is less than 0.05, then the assumption of the existence of identity matrix will be rejected, as a result, it will be possible to make use of factor analysis. This value was 0.000 for the aforementioned questionnaire which has been used in this research, so, the validity of this questionnaire was approved.

Table 1. KMO and Bartlett's sphericity test results for the questionnaire

KMO test of sample sufficiency scale	0.654
Bartlett's test of sphericity	0.000 Sig

The proposed and the estimated structural equation model in this research and the minimum acceptable value are 0.6. The results of these two tests are presented in Table 16:

Kolmogorov-Smirnov (KS) test

Distribution (uniform, Poisson, exponential and normal) of the quantitative variable data can be investigated through using Kolmogorov-Smirnov test. This test has been used in order to investigate the

data normalization in this study, which can be used in the selection of data analysis method. The results of this test are presented in the table:

H0: the research variables are distributed normally
H1: the research variables are not distributed normally

Table 2. Results of the Kolmogorov-Smirnov test in the sample of study

Name of variables	Mean	Standard deviation	Sig level	Results of hypothesis
Coordination	2.77	0.640	0.003	H0 rejected
Integration	2.77	0.727	0.042	H0 rejected
Organizational Learning	2.70	0.614	0.003	H0 rejected
Response to market	2.84	0.687	0.218	H0 approved
Dynamic organizational capabilities	2.78	0.557	0.139	H0 approved
Knowledge creation	2.62	0.530	0.058	H0 approved
Maintain knowledge	2.87	0.725	0.028	H0 rejected
Knowledge transfer	2.47	0.669	0.125	H0 approved
Application of knowledge	2.60	0.645	0.108	H0 approved
Knowledge management	2.64	0.532	0.087	H0 approved
Reducing the amount of payments	3.71	0.897	0.012	H0 rejected
Physicians inhabitancy	3.61	0.863	0.018	H0 rejected
The presence of specialists	3.49	0.690	0.019	H0 rejected
Enhance the quality of visit services	3.44	0.810	0.024	H0 rejected
Improving the quality of Hoteling	3.31	0.954	0.004	H0 rejected
Financial support for refractory patients	3.50	0.819	0.012	H0 rejected
Promote natural childbirth	3.72	0.872	0.062	H0 approved
The objectives of health reform plan	3.54	0.714	0.413	H0 approved

Given the fact that significant level must exceed 0.05 in order to meet the data is normality, the claim that all the data are normal is not accepted, so, partial least squares method is used for the analysis.

Evaluation of factor loadings

Factor loadings coefficients for the study variables are listed in the table below:

Table 3. The factor loadings of the study variables

Covert research variable	Overt research variables	Questions	Factor loadings coefficients
Knowledge management	Knowledge creation	Q1	0.648
		Q2	0.718
		Q3	0.803
		Q4	0.800
		Q5	0.585
	Maintain knowledge	Q6	0.735
		Q7	0.713
		Q8	0.807
	Knowledge transfer	Q9	0.756
		Q10	0.835
		Q11	0.779
		Q12	0.486
	Application of knowledge	Q13	0.801
		Q14	0.638
		Q15	0.791
		Q16	0.838
Dynamic organizational capabilities	Coordination	Q17	0.740
		Q18	10.922
	Integration	Q19	10.768
		Q20	12.469
	Organizational Learning	Q21	11.172
		Q22	20.678
	Response to market	Q23	21.694
		Q24	18.123
The objectives of health reform plan	Reducing the amount of payment	Q25	11.059
		Q26	50.086
	Physicians inhabitancy	Q27	25.757
		Q28	34.549
		Q29	74.216
		Q30	15.529
		Q31	21.069
	The presence of specialists	Q32	8.589
		Q33	4.439
	Enhance the quality of visit services	Q34	41.997
		Q35	38.018
		Q36	48.435
		Q37	22.808
	Improving the quality of Hoteling	Q38	19.063
		Q39	81.179
		Q40	69.507

	Financial support for refractory patients	Q41	119.950
		Q42	77.931
	Promote natural childbirth	Q43	33.814
		Q44	19.360
		Q45	10.829

As it can be inferred from table 3, all factor loadings coefficients of the variables are greater than 0.4, indicating the suitability of this criterion.

Cronbach's alpha and composite reliability

As table 4 data shows, the Cronbach's alpha for all the variables of the study is more than 0.7, so, reliability will be met. An important point that should be noted with regard to the composite reliability is that, since the software calculates them wrongly and shows them in the output, the values of covert variables second mix-up must be calculated manually. Therefore, the measurement error variance is calculated through the following formula [3]. Results of the study variables are presented in the table below:

Table 4. Cronbach's alpha and composite reliability of the study variables

Study variables reliability	Cronbach's alpha	Composite
Knowledge creation	-	0.839
Maintain knowledge	-	0.805
Knowledge transfer	-	0.812
Application of knowledge	-	0.853
Knowledge management	0.886	0.900
Coordination	-	0.720
Integration	-	0.768
Organizational learning	-	0.756
Response to market	-	0.816
Dynamic organizational capabilities	0.824	0.898
Reducing the amount of payments	-	0.873
Physicians inhabitancy	-	0.905
The presence of specialists	-	0.845
Enhance the quality of visit services	-	0.909
Improving the quality of Hoteling	-	0.943
Financial support for refractory patients	-	0.946
Promote natural childbirth	-	0.881
The objectives of health reform plan	0.923	0.942

Table 5. The average variance extracted from covert first time variables

Study variables	AVE value
Knowledge creation	0.57
Maintain knowledge	0.51
Knowledge transfer	0.53
Application of knowledge	0.59
Knowledge management	0.69
Coordination	0.56
Integration	0.62
Organizational learning	0.61
Response to market	0.60
Dynamic organizational capabilities	0.69
Reducing the amount of payments	0.78
Physicians inhabitancy	0.76
The presence of specialists	0.58
Enhance the quality of visit services	0.72
Improving the quality of Hoteling	0.86
Financial support for refractory patients	0.90
Promote natural childbirth	0.71
The objectives of health reform plan	0.70

After investigating the convergence validity of first order hidden variables, we turn to second order hidden variables. The AVE value of a second order variable equals its dimensions squared loadings factor mean. So, we get:

$$\text{Dynamic organizational capabilities AVE} = \frac{(0.759)^2 + (0.746)^2 + (0.901)^2 + (0.897)^2}{4} = 0.69$$

$$\text{Knowledge management AVE} = \frac{(0.822)^2 + (0.817)^2 + (0.826)^2 + (0.863)^2}{4} = 0.69$$

$$\text{The objectives of health reform plan AVE} = \frac{(0.776)^2 + (0.906)^2 + (0.829)^2 + (0.903)^2 + (0.924)^2 + (0.779)^2 + (0.712)^2}{7} = 0.70$$

As a result, with increase in first and second AVE hidden variables, convergent validity and appropriateness of the fitness of model is approved.

Fitness of structural model (significant coefficient for Z)

Meaningful t values are the most basic criterion for the evaluation of the relationship between constructions in the model (structural part). If the value of these numbers is greater than 1.96, the appropriateness of the relationship between constructions and thus approve of the hypothesis of the study at 95 percent confidence level will be met. It is worth mentioning that the t values only show the relationships and, they cannot measure the intensity of the relationship between the constructions. Calculation of significant coefficients of rout is done through Bootstrapping commands, that the number of respondents to the questionnaire and the frequencies of sample were entered by the software as 102 and 200 respectively. Figure 1 shows the outlined model with significant coefficients of Z. As it is clear in the figure, all the significant coefficients of Z are higher than 1.96 which indicates the significance of all questions and relationships between variables at 95% confidence level.

The t values at the significant level of 95% are presented in the table below:

Table 7. The results of t values

Covert research variable	Overt research variables	Questions	T values
Knowledge management	Knowledge creation	Q1	11.220
		Q2	7.888
		Q3	21.069
		Q4	24.248
		Q5	5.516
	Maintain knowledge	Q6	14.520
		Q7	7.973
		Q8	12.870
	Knowledge transfer	Q9	16.448
		Q10	29.116
	Application of knowledge	Q11	14.168
		Q12	4.165
		Q13	25.218
		Q14	7.781
		Q15	15.792
		Q16	22.829
Dynamic organizational capabilities	Coordination	Q17	6.390
		Q18	10.922
	Integration	Q19	10.768
		Q20	12.469
		Q21	11.172
	Organizational Learning	Q22	20.678
		Q23	21.694
	Response to market	Q24	18.123
The objectives of health reform plan	Reducing the amount of payments	Q25	11.059
		Q26	50.086
	Physicians inhabitancy	Q27	25.757
		Q28	34.549
		Q29	74.216
	The presence of specialists	Q30	15.529
		Q31	21.069
		Q32	8.589
		Q33	4.439
	Enhance the quality of visit services	Q34	41.997
		Q35	38.018
		Q36	48.435
		Q37	22.808
		Q38	19.063
	Improving the quality of Hoteling	Q39	81.179
		Q40	69.507
	Promote natural childbirth	Q41	119.950
		Q42	77.931
		Q43	33.814
		Q44	19.360
		Q45	10.829

p < 0.05

R Squares criterion or R2

R2 is a criterion to connect measure part and structural part of structural equation modeling. It shows the effect of an exogenous variable on an endogenous variable. An important point with regard to this criterion is that, the value of R2 is calculated only for endogenous (dependent) constructions of the model and the value of this criterion for exogenous constructions equals zero.

Table 8. R2 significant coefficients for the endogenous variables of the study

Study variables	R2 criteria
Knowledge creation	0.675
Maintain knowledge	0.668
Knowledge transfer	0.683
Application of knowledge	0.746
Knowledge management	0.602
Coordination	0.577
Integration	0.556
Organizational learning	0.811
Response to market	0.804
Dynamic organizational capabilities	-
Reducing the amount of payments	0.602
Physicians inhabitancy	0.821
The presence of specialists	0.688
Enhance the quality of visit services	0.815
Improving the quality of Hoteling	0.853

Table 8 data shows that all research constructions are greater than average value of 0.33, that indicates the strong fitness of structural model.

Table 9. Joint cross validity and redundancy validity of research model

Study variables	Q2 criteria
Knowledge creation	0.362
Maintain knowledge	0.319
Knowledge transfer	0.344
Application of knowledge	0.428
Knowledge management	0.215
Coordination	0.313
Integration	0.341
Organizational learning	0.489
Response to market	0.475
Dynamic organizational capabilities	-
Reducing the amount of payments	0.461
Physicians inhabitancy	0.622
The presence of specialists	0.378
Enhance the quality of visit services	0.579
Improving the quality of Hoteling	0.760
Financial support for refractory patients	0.540
Promote natural childbirth	0.353
The objectives of health reform plan	0.222

As table 9 data shows, all blocks of hidden variables in the research model are of a high values of Q2 domain (0.22 to 0.76) and positive values indicate a high degree of prediction aspect of the model.

The overall model fitness

Goodness of fit (GOF) criteria was used in order to investigate the overall model fitness which has been in accordance with the following formula.

$$(Formula\ 1)\ GOF = \sqrt{\text{Communalities} \cdot R^2}$$

Table 10. Required values to evaluate GOF criteria

Endogenous variables	R2 criteria	Shared values
Knowledge creation	0.675	0.57
Maintain knowledge	0.668	0.51
Knowledge transfer	0.683	0.53
Application of knowledge	0.746	0.59
Knowledge management	0.602	0.69
Coordination	0.577	0.56
Integration	0.556	0.62
Organizational learning	0.811	0.61
Response to market	0.804	0.60
Dynamic organizational capabilities	-	0.69
Reducing the amount of payments	0.602	0.78
Physicians inhabitancy	0.821	0.76
The presence of specialists	0.688	0.58
Enhance the quality of visit services	0.815	0.72
Improving the quality of Hoteling	0.853	0.86
Financial support for refractory patients	0.607	0.90
Promote natural childbirth	0.507	0.71
The objectives of health reform plan	0.490	0.70
Total	12.848	1.98
Mean	0.756	0.666

$$GOF = \sqrt{\text{Communalities} \cdot R^2} = \sqrt{0.666 \cdot 0.756} = 0.710$$

Wetzels et al (2009) offered three values of 0.01, 0.25, and 0.36 as weak, medium, and strong values for GOF respectively. Table 8 data shows that calculated GOF for this study is 0.710 which specifies the strong overall research model fitness.

Testing the hypotheses (the hypothesis)

Sobel test

In Sobel test a quantity of Z-value is obtained through the following formula. In the case of increasing the amount up to 1.96, the significance of the impact of a mediator variable can be approved at 95% confidence level.

$$(Formula\ 2)\ Z\text{-value} = \frac{a \cdot b}{\sqrt{(b^2 + s_b^2) + (a^2 + s_a^2) + (s_a^2 + s_b^2)}}$$

Where:

a: the value of path coefficient between the independent variable and the mediator

b: the value of path coefficient between the mediator and the dependent variable

Sa: standard error of the path between the independent variable and the mediator

Sb: standard error of the path between the mediator and the dependent variable

So, after replacing the values in the formula 4-2 we get:

$$Z\text{-value} = \frac{0.776 \cdot 0.415}{\sqrt{(0.415^2 \cdot 0.039^2) + (0.776^2 \cdot 0.129^2) + (0.039^2 \cdot 0.129^2)}} = 3.189$$

As it can be seen the Z-value obtained from the results of the Sobel test was 4.643, which due to being greater than 1.96, it can be stated that at 95% confidence level the effect of knowledge management mediator on the relationship between the dynamic organizational capabilities and the objectives of health reform plan is significant.

Determine the effect intensity of mediation

In addition to Sobel test, a statistic called VAF is used to determine the indirect effect intensity through the mediating variable, which shows a value between 0 and 1. The more this value is closer to 1, it indicates the stronger effect of the mediator. In fact, this ratio measures the indirect effect on the total effect.

The value of this variable is calculated through the following formula:

$$\text{(Formula 3)} \quad \text{VAF} = \frac{a \times b}{(a \times b) + c}$$

Where: a: the value of path coefficient between the independent variable and the mediator

b: the value of path coefficient between the mediator and the dependent variable

c: the value of path coefficient between the independent variable and dependent variable and is equal to:

$$\text{VAF} = \frac{0.776 \times 0.415}{(0.776 \times 0.415) + 0.327} = 0.496$$

This means that almost half of the total effect of dynamic organizational capabilities on the objectives of health reform plan is accounted through indirect effect of knowledge management mediator variable.

Table 11. Results of direct and indirect effects of research variables

Considered path	Direct effect	Indirect effect	Total effect
Dynamic organizational capabilities on the objectives of health reform plan	0.327	0.322	0.649
Dynamic organizational capabilities on knowledge management	0.776	-	0.776
knowledge management on the objectives of health reform plan	0.415	-	0.415

In order to evaluate the assumption of distribution normality of the sample, Hayes (2009) recommended that the bootstrap method should be used to evaluate the indirect effects as a suitable approach for testing indirect effects of the t values at 95 percent confidence level, according to which 200 samples is appropriate out of 102 respondents. According to the table, the results show that the paths related coefficients are greater than 1.96, which indicates that the path is significant and structural model is suitable. Now, we have to investigate that what amount of change in the dependent variable is due to independent variable. Table 11 data shows that dynamic organizational capabilities variable has affected 34 percent of the objectives of the health reform plan variable directly and has also affected 32 of it through knowledge management mediator variable indirectly. In total, dynamic organizational capabilities variable stands for 65 percent of the changes in the objectives of the health reform plan variable. While, about 78 percent of the changes in the knowledge management variable is determined under the effect of this variable. About 42 percent of the changes in the health reform plan objectives will be attributed to knowledge management. The results of this test are shown in figure 2.

Table 12. Investigating the main research hypotheses

Research hypotheses	Path coefficient	t statistic	Standard error	P values	Result
Dynamic organizational capabilities affect health reform plan objectives directly. approved	0.327	2.870	0.114	0.005	
Dynamic organizational capabilities affect health reform plan objectives indirectly through the mediator variable of knowledge management. approved	0.322	3.189	-	-	-
Dynamic organizational capabilities affect knowledge management significantly. approved	0.776	20.027	0.039	0.000	
Knowledge management affects health reform plan objectives significantly. approved	0.415	3.220	0.129	0.001	hypothesis

Discussion and conclusion

This study was launched with the aim of analyzing the effect of dynamic organizational capabilities and knowledge management on the health reform plan. In summary, the results of the study, based on collected data and statistical tests showed that organizational capabilities and knowledge management has a positive effect on health reform plan and five research hypotheses were approved. It is necessary to make use of dynamic organizational capabilities and knowledge management in order to achieve competitive advantage and profitability in universities and hospitals. From the interpretation of the research model with standardized values loadings we can come to the conclusion that integration and organizational learning components in organizational dynamic capabilities has the greatest effect on the components of health reform plan, and knowledge application component has the greatest effect on the components of health reform plan in knowledge management, which has the greatest effect on the components of quality of services, specialists attendance in deprived areas, and physicians inhabitancy. The bootstrap method was used in order to measure the normality assumption of distribution of the sample and to evaluate indirect effects. 95 percent confidence level was offered for testing the indirect effects of t values. The results show that the coefficients on the paths were greater than 1.96, which has indicated the significance of the path and appropriateness of the structural model. Investigating the amount of changes in dependent variables due to independent variable showed that dynamic organizational capabilities variable has affected 34 percent of the objectives of the health reform plan variable directly and has also affected 32 of it through knowledge management mediator variable indirectly. In total, dynamic organizational capabilities variable stands for 65 percent of the changes in the objectives of the health reform plan variable. While, about 78 percent of the changes in the knowledge management variable is determined under the effect of this variable. About 42 percent of the changes in the health reform plan objectives will be attributed to knowledge management. A statistic called VAF is used to determine the indirect effect intensity through the mediating variable, which shows a value between 0 and 1. The more this value is closer to 1, it indicates the stronger effect of the mediator. In fact, this ratio measures the indirect effect on the total effect.

VAF = 0.496, this means that almost half of the total effect of dynamic organizational capabilities on the objectives of health reform plan is accounted through indirect effect of knowledge management mediator variable.

Finally, the dynamic organizational capabilities and knowledge management plays an important role in achieving the objectives of health reform plan, and the precise identification of components is a key to its development.

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