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Presenting a model for reforming an organization for improving and making its healthy

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Abstract

In this research, under the title "Presentation of the structural model of the interaction of managers and the organization in the direction of empowerment", an attempt is made to examine the current situation of the organization and to design an appropriate structural model by using the indicators of organizational empowerment and its establishment in order to improve the organizational conditions. The current research is quantitative and descriptive-analytical. The statistical population of the research includes experts and managers of Tehran municipality, whose number is equal to 58 thousand people. To determine the minimum required sample size, Morgan's table was used for the limited population, and finally, 257 completed questionnaires were returned, which became the basis of the analysis. The data collection tool is a researcher-made questionnaire whose validity was confirmed by experts and its reliability was confirmed by Cronbach's alpha coefficient. Data analysis with the help of structural equations and with SPSS20 and Lisre18 software. 8 and SmartpLus have been investigated and the results show the significance of the relationships and components of the presented model.

Keywords: empowerment, organizational structure, structural modeling
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1 Introduction

Education is the beating heart of sustainable development and its goals, and organizations are the most important unit that can increase the quality of education on employees [10].

A little more than a decade has passed since the invention of the general concept of empowerment and knowledge promotion [9] and during this time in the advanced world and facing increasing and rapid changes in all matters, it is rapidly becoming the main competitive advantage in the organization. It can provide a precious opportunity to use and manage it well, and at the same time it can be considered a serious threat for organizations that do not know or do not want to know environmental changes [8]. In order to adapt to the changing and competitive environment, organizations are forced to show more flexibility in their structure in front of environmental changes than in the past, and they also need more complex methods to be able to use their knowledge capital. They have to effectively control

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their knowledge cycle (stages of knowledge production and dissemination) [1] and also provide more effective support to the social processes that lead to knowledge creation [13].

Employees may not show much enthusiasm for empowerment and knowledge improvement, because this process causes change and increases the risk of new methods and new types of responsibility [6], finally, many managers and employees may consider empowerment as a lot of work for themselves with little direct return compared to the efforts related to it [14].

Considering that knowledge management, insight enhancement, and skill development are relatively new concepts for organizations, employees often feel that this is an additional skill set that they need to learn [2]. This creates a feeling of negative attitude towards the empowerment program, and in most cases the empowerment tools, which are very simple, are not used by people, and they try to learn it or try to apply what they have learned in They don't do the work environment, training in relation to empowerment is not a priority and important for them. The culture of "my head is too busy" leads to the fact that empowerment does not add value, managers and employees in the organization often when they want to produce, share, gather and transfer knowledge, the image of the culture of "my head is too busy" show, empowerment is not considered as a "real job" but rather as a job that is not prioritized in the workplace [11, 12]. This culture is often due to the non-involvement of the organization's management with the empowerment program, and for this reason, people are not evaluated if they participate in the empowerment program, and for example, their participation is not encouraged or rewarded. This may be due to the understanding of the value added to the organization through empowerment. They do not understand the value of creating and sharing knowledge in the organization, neither for themselves nor for others, and therefore they are too busy to do this work [3].

The word (EMPOWER) in the Oxford dictionary means "empowering", "allowing", "providing evidence" and "becoming able" [4]. In a special sense, it means empowering and giving freedom of action to people to manage themselves, and in the organizational sense, it means a change in culture and courage in creating and directing an organizational environment [7]. Empowerment is a new method for leading organizations in a competitive environment. In the strategy of total quality management (TQM), if the ability of employees in the organization is not paid attention to, the organization is doomed to failure. Continuous improvement (kaizen) is when employees have the necessary information and are trusted by the management so that they can use their skills and abilities and transfer it to the entire organization [5, 15].

2 Research method

Considering that the researcher in the current research is looking for a "structural model of the interaction between managers and the organization in the direction of empowerment", therefore a cause-and-effect relationship should be investigated, so the research is of the correlation type. Also, because the researcher investigates the existing situation (what is), therefore, it is of a descriptive type, and because the researcher uses the interview tool, which is distributed and collected among the statistical community, therefore, the research is of a survey type and due to the fact that the research is conducted as a case study (organizations) and the results are supposed to be applied and used in the statistical community, the current research is of applied type. Due to the fact that the researcher in the current research seeks to present a structural model of interaction between managers and the organization in the direction of empowerment, therefore, the statistical population of the current research includes two parts as follows:

1. The first part includes managers and experts of organizations.
2. The second part includes experts, university professors and experts in the field of research.

The statistical population of the research includes expert staff and managers. Their number is equal to 58 thousand people. In order to determine the minimum required sample size, Morgan's table was used for the limited population, so the minimum required sample size was 245 people, and to further ensure the return of a sufficient number of questionnaires, 300 questionnaires were distributed and finally 257 completed questionnaires were returned which was the basis of the analysis.

Considering that the size of the research population is large, therefore, Cochran's formula or Morgan's table is used to determine the statistical sample size. Considering that the studied population has similar characteristics and are homogeneous, therefore, this number of samples will be selected randomly from the statistical population.

In order to test the research hypotheses, information has been collected in the following ways. First, 17 people were selected for interviews among the managers and experts and the elites. And the experts of this field have been

randomly distributed in a simple way, in such a way that each person, including experts, professors and experts, had an equal chance to complete the questionnaire and answer, and the findings of the research are based on the data obtained from the research has been analyzed.

The data analysis stage is the output of the qualitative part of the research and is the result of the interview and theory of research data or model testing (theory testing) using the structural equation model. It is a small part.

In this section, a questionnaire based on the indicators, components, concepts and categories of the proposed model has been prepared, and this questionnaire contains 59 questions. The presented questionnaire has a five-point Likert scale, which is very low (with a score of 1), low (with a score of 2), medium (with a score of 3), high (with a score of 4) and finally very high (with a score of 5). is After the validity of the questionnaire (in this way that the questionnaire was given to the experts and experts as well as respected professors and advisors and they were asked for their opinion on each question and regarding the evaluation of the relevant goal and with minor modifications, the validity of the questionnaire was It was confirmed (and reliable) in this way that the questionnaire was distributed and collected in a preliminary way among a number of the investigated community and was entered into the SPSS software and Cronbach's alpha was calculated. In this section, using size models obtaining the structural equation model under the measurement of the structures is examined by the relevant indicators, in other words, by using confirmatory factor analysis, it is determined whether the questions designed in each structure can really measure the desired structure. Also, whether the considered questions and indicators have the required validity or not. To do this, LISREL 8.80 software was used.

Structural equations are from the multivariate regression family, which allows researchers to test a set of regression equations simultaneously.

2.1 General model of structural equations

This model is a combination of two measurement and structural models, and in it both the relationships between hidden variables and manifest variables (measurement model) and the relationships between hidden variables (structural model) are considered.

An example of a general structural equation model and its solution

The relationship between the three hidden variables m, p and g is investigated as follows:

The external hidden variable g, p, m is the independent variable that affects the internal hidden variable n.

To measure variable m, three obvious index variables X1, X2 and X3 have been used.

To measure the p variable, three obvious index variables Y1, Y2 and Y3 have been used.

To measure the hidden variable g, three obvious index variables Y4, Y5 and Y6 are used.

The path coefficient between two dependent latent variables is denoted by β and the path coefficient between the independent and dependent latent variable is denoted by γ.

The relationship between each hidden variable and the corresponding manifest variables is indicated by the letter λ, which is called factor loading.

ε represents the error (residual) for the latent variable

δ denotes the error (residual) for the exogenous manifest variable

ζ represents the error variance (residual) for the internal latent variable used to fit the model.

The model should be named according to the number of parameters of the model and the parameters should be entered into the model

$$n_t = \beta_1 + \beta_2 g_t + \beta_3 p_t + \varepsilon_{1t} \tag{2.1}$$

$$n_t = \beta_{11} + \beta_{12} m_t + \beta_{13} p_t + \varepsilon_{2t} \tag{2.2}$$

$$n_t = \frac{\{(\beta_1\beta_{13} - \beta_{11}\beta_3) + \beta_{13}\beta_2 g_t - \beta_3\beta_{12} m_t - \beta_3\beta_{14} n_{t-1} + (\beta_{13}\varepsilon_{1t} - \beta_3\varepsilon_{2t})\}}{\beta_{13} - \beta_3} \tag{2.3}$$

$$p_t = \frac{\{(\beta_1 - \beta_{11}) + \beta_2 g_t - \beta_{12}\beta_{12} m_t - \beta_{14} n_{t-1} + (\varepsilon_{1t} - \varepsilon_{2t})\}}{\beta_{13} - \beta_3} \tag{2.4}$$

$$erf(x) = \frac{2}{\sqrt{\pi}} \int_0^x e^{-t^2} dt.$$

$$n = \max(n_1, n_2) \tag{2.5}$$

where:

$$
\begin{aligned}
n_1 &= \left\lceil 50\left(\frac{j}{k}\right)^2 - 450\left(\frac{j}{k}\right) + 1100 \right\rceil \\
n_2 &= \left\lceil \frac{2}{2H}\left(A\left(\frac{\pi}{6} - B + D\right) + H + \sqrt{\left(A\left(\frac{\pi}{6} - B + D\right) + H\right)^2 + 4AH\left(\frac{\pi}{6} + \sqrt{A} + 2B - C - 2D\right)}\right) \right\rceil \\
A &= 1 - p^2 \\
B &= parcsin\left(\frac{p}{2}\right) \\
C &= parcsin(p) \\
D &= \left(\frac{\delta}{z_1 - \alpha/2 - z_1 - \beta}\right)^2
\end{aligned} \tag{2.6}
$$

where j is the number of observed variables, k is the number of hidden variables, ρ is the estimated Gini correlation for a normal random vector of variables, δ is the predicted effect size, α is the corrected type I error rate, β is the type II error rate, and z is a standardized score.

$$
F(x; \mu, \sigma^2) = \frac{1}{2}\left[1 + erf\left(\frac{x - \mu}{\sigma\sqrt{2}}\right)\right] \tag{2.7}
$$

Where μ is the mean, σ is the standard deviation, and erf is the error function. Now the same steps can be done using software.

2.2 Model goodness of fit tests

As their name suggests, goodness-of-fit tests are used to determine whether a particular distribution is well-fitted. Calculating goodness-of-fit statistics also helps to rank the fitted distributions according to how well they fit the data.

2.2.1 The first RMSEA index

$$
RMSEA = \frac{\sqrt{(X^2 - df}}{\sqrt{[df(N-1)]}} \tag{2.8}
$$

2.2.2 The second GFI index

$$
GFI = 1 - \frac{F(S, \sum(\acute{\theta}))}{F(S, \sum(\cdot))} \tag{2.9}
$$

2.2.3 The third AGFI index

$$
AGFI = 1 - \frac{k(k+1)}{2d}(1 - GFI) \tag{2.10}
$$

3 Results

In addition to the identification of spoken evidence (key points), the coding process includes conceptualization (extraction of codes), categorization (axial coding) and identification of the general research model (selective coding). Verbal evidence or key points are small events that have an independent meaning. Conceptual naming of spoken evidence is called conceptualization, which is mentioned as code in this research. After identifying and naming the existing concepts, similar concepts are combined based on logic and each one is presented under the title of a category, and finally the research model is presented in the form of the foundation's data model.

In order to examine the research model, first, the covariance-based structural equation modeling method was used, and the confirmatory factor analysis technique was used to examine the validity of the questions and indicators

Table 1: Concepts and categories extracted from data coding

Row	Categories	Concepts
1	Human Factors	• Internal injustices in the organization • Not paying attention to the motivations of the employees and managers of the organization. • The existence of personal tastes and interests of managers in managing the affairs of the organization. • Not paying attention to meritocracy in the organization is problematic.
2	cultural factors	• Attitudes, beliefs and opinions of employees towards the organization • The lack of attention of employees and managers towards religious values and norms is the cause of problems. • The existence of employees' tendency towards lack of ability and development according to the context governing the organization and society
3	Organizational factors	• Failure to use modern technologies causes problems. • Long, wide and long organizational structure causes problems. • Absence of updated rules and regulations causes problems. • The absence of a complete monitoring system in the organization causes problems.
4	Management and leadership factors	• The power and style of managers causes problems. • The type of selection of managers in their employment causes the formation of problems. • The level of commitment of managers towards the organization and society causes problems. • Instability of managers causes problems.
5	Job factors of employees	• The lack of precise definition of the job qualification conditions causes the formation of problems. • Failure to define the job description completely causes problems. • Non-adherence to rules and regulations causes problems. • Lack of awareness of rules and regulations by employees causes problems.
6	Organizational fields	• Lack of proper communication system (informal communication) causes problems. • The lack of a human resource maintenance system (job and postal security) causes problems. • Upstream rules and regulations • Lack of accountability system towards society and employees • The incompatibility of the system based on the needs of the day
7	Development and training factors	• Failure to train employees with emphasis on improving employee productivity causes problems. • Lack of continuous development of capabilities and capacities of employees and managers causes problems.
8	Vision and goals and	• Lack of constructive interaction between municipalities, government, parliament, and other powers and people • Absence of vision and long-term policies of the organization in terms of human resources • Lack of intelligence in organizations • Absence of democratic thinking in organizations • The prevailing thinking of resistance to change
9	Missions of the organization	• Injustice and discrimination in the organization • Lack of clarity in rules and regulations • Lack of commitment of employees and managers towards the organization and society • Lack of direct and continuous accurate monitoring (inside and outside the organization) • Not paying attention to the motivations of human resources (managers and employees) • Lack of self-control • Lack of continuous improvement of employees and managers • Increasing the role of people's powers and powers outside the organization in the decision-making process
10	Core categories of corruption	• Reducing corruption at the individual level (improving individual performance) • Increase growth to individual development and empowerment • Improving job attitude (commitment, satisfaction, loyalty)
11	Individual consequences	• Improving group performance (creating a dynamic and healthy atmosphere and culture in the organization) • Developing effective communication (improving constructive communication) • Increasing the organization's intellectual capital
12	Group consequences	• Improving organizational performance (organizational productivity and success) • Development of social capital • Organizational growth • Good reputation of the organization
13	Designing an administrative meritocracy system (human resources department)	• Appointment of managers based on merit • Recruiting and selecting and employing employees based on merit • Creating self-control thinking among employees and managers • Reducing the role of power centers in decision-making • Paying attention to the motivations of human resources and meeting their needs
14	System establishment (technology and rules and regulations) administrative strengthening	• Establishing new technologies to make the organization smarter • Updating rules and regulations based on the daily needs of the organization • Establishing direct individual supervision, free press in line with administrative empowerment • Prioritizing the organizational capability of organizational activities (auctions and tenders)

considered. To do this, LISREL8.80 software is used. Also, in order to test the main hypotheses of the research, the structural equation modeling method based on partial least squares was used. Therefore, SmartPLS.03 software is used. It is worth mentioning that since Lisrel software has a limit on the number of characters in the naming of variables and does not accept more than eight characters for the name of each variable, for each variable, an abbreviated name is stated in table 2.

Table 2: Abbreviated names of variables in Lisrel software

Row	Variable	Short name
1	Eli conditions	ELI
2	The central category	MEHVARI
3	Strategies	RAHBORD
4	background	ZAMINE
5	Intervening conditions	MODAKHELEGAR
6	consequences	PAYAMAD

3.1 Confirmatory factor analysis of questionnaire structures

Factor analysis is used both in the design and validation of the questionnaire and in testing the assumed factor structure of a theoretical construct. In this section, by using the measurement models, the structural equation model under the measurement of the structures is examined by the relevant indicators. In other words, by using confirmatory factor analysis, it is determined whether the questions designed in each structure can really measure the desired structure. Also, whether the considered questions and indicators have the necessary validity or not.

3.2 Confirmatory factor analysis of the eli condition variable

3.2.1 Standard coefficients

These coefficients actually represent path coefficients or factor loadings between variables and related questions (hidden and observable variables). From the measurement model of standard coefficients, it is possible to understand how much correlation exists between the underlying variables and their corresponding indicators. In this model, the degree of relationship between the structure and dimension, dimension and index is shown. If the correlation coefficient is higher than 0.3, it can be said that the questions have good explanatory power. As can be seen in Figure (1-4), all the indicators considered for all the questions related to the variables of the model have a factor loading above 0.3, and also all the factor loadings between the first and second order variables are also higher than 0.3.

3.2.2 Significance of standard coefficients

The standard estimation model is presented so that by having binary correlation coefficients, it is possible to compare between indicators and between dimensions, but regarding the significance of these coefficients, it is not possible to make a decision based on their life or smallness, but the t-index should be used to determine the significance of these path coefficients. The model of significant numbers is presented for the purpose of determining whether the relationship between the construct and the dimension and the relationship between the dimension and the index is significant or not. The model of significant numbers or the T-value shown in Figure 1 shows the significance level of each of the parameters, and if its value is greater than the absolute value of 1.96, the parameters of the model are significant. As shown in the figure below, all the significant numbers of the current model are greater than 1.96, so all factor loadings and path coefficients of the model are significant.

3.2.3 The fit indices of the variable measurement model of Eli conditions

Before using the results obtained from the confirmatory factor analysis, it is necessary to ensure the appropriateness and optimal fit of the model, in other words, to reject or accept the fact that the model formulated by the researcher based on the theoretical framework and its theoretical background conforms to the reality and the collected data, criteria under the title of model fit indices are considered. The current model was evaluated in the second-order confirmatory factor analysis based on the most important fit indices, and the result is shown in Table 3.

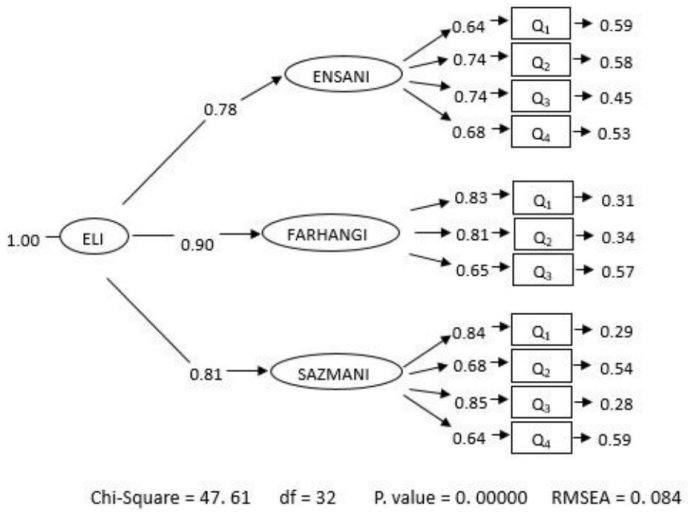

Figure 1: Variable measurement model of eli conditions in standard estimation mode

Table 3: Examining goodness of fit indicators

Good result	**Research values**	**Great values**	**Appropriate values**	**Fit indices**	
A good fit	1.49	≤ 2	≤ 3	Dividing chi-square by degrees of freedom	χ^2/df
A good fit	0.084	≤ 0.08	≤ 0.1	The root mean square of the estimation error	Root Mean Squared Error of Approximation (RMSEA)
A good fit	0.90	≥ 0.95	≥ 0.9	Soft fit index	Normed Fit Index (NFI)
Great fit	0.92	≥ 0.95	≥ 0.9	Non-smooth fit index	Non-Normed Fit Index (NNFI)
A good fit	0.94	≥ 0.95	≥ 0.9	Comparative fit index	Comparative Fit Index (CFI)
A good fit	0.94	≥ 0.95	≥ 0.9	Incremental fit index	Incremental Fit Index (IFI)
A good fit	0.90	≥ 0.95	≥ 0.9	goodness of fit index	Goodness of Fit Index (GFI)
A good fit	0.85	≥ 0.95	≥ 0.8	Adjusted goodness of fit index	Adjusted Goodness of Fit Index (AGFI)
A good fit	0.045	≤ 0.05	≤ 0.08	Root mean square residual	Root Mean Square Residual (RMR)
A good fit	0.073	≤ 0.05	≤ 0.08	Root Mean Squared Standardized Residuals	Standardized Root Mean Square Residual (SRMR)

As it is clear from the values presented in the table, all the general goodness-of-fit criteria of the confirmatory factor analysis indicate the general fit of the proposed model with the data and indicate the good fit of the causal conditions variable measurement model:

According to the results, all obtained factor loadings have values higher than 0.3, which indicates relatively high and favorable factor loadings. On the other hand, all significant numbers of model parameters are greater than 1.96. In general, taking into account the high level of factor loadings and their significance along with the goodness of fit of the model, we can conclude the validity and reliability of the variable measurement model of causal conditions.

3.3 Confirmatory factor analysis of the central category variable

3.3.1 Standard coefficients of confirmatory factor analysis of the variable measurement model of the central category

In this model, the degree of relationships between the variable and its constituent dimensions, and the relationship of each dimension or its related indicators (questions) are shown. If the relationship size is higher than 0.3, it can be said that the questions have good explanatory power. As can be seen in Figure 2, all the indicators considered for all the questions related to the variables of the model have a correlation above 0.3.

3.3.2 Significance of standard coefficients

The model of significant numbers of the central category variable shown in Figure 3 shows that all the significant numbers of the present model are greater than 1.96, so all factor loadings of the model are significant.

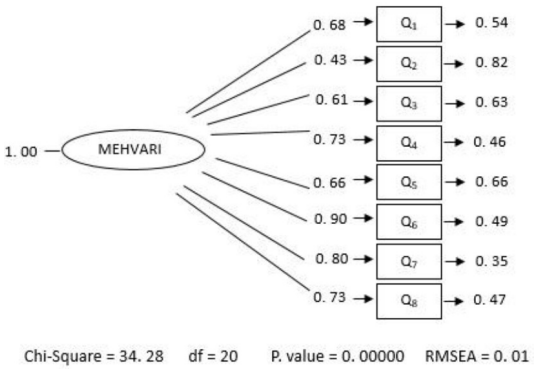

Figure 2: Measurement model of central category variable in standard estimation mode

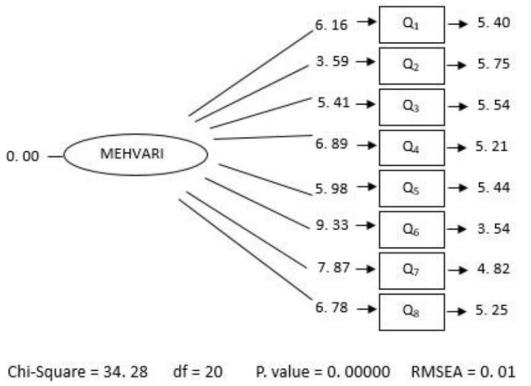

Figure 3: The variable measurement model of the central category in the meaningful state

3.3.3 The fit indices of the variable measurement model of the central category

As it is clear from the values presented in table 4, all the general criteria of the goodness of fit of the confirmatory factor analysis indicate the general fit of the proposed model with the data and indicate the excellent fit of the measurement model, so the data have confirmed the general model of the proposed factorial structure of the central category variable of the questionnaire based on all the mentioned fit indices.

Table 4: Examining goodness of fit indicators

Good result	**Research values**	**Great values**	**Appropriate values**	**Fit indices**
Great fit	1.78	≤ 2	≤ 3	χ^2/df
A good fit	0.01	≤ 0.08	≤ 0.1	RMSEA
A good fit	0.94	≥ 0.95	≥ 0.90	NFI
A good fit	0.92	≥ 0.95	≥ 0.90	NNFI
A good fit	0.91	≥ 0.95	≥ 0.90	CFI
A good fit	0.92	≥ 0.95	≥ 0.90	IFI
A good fit	0.91	≥ 0.95	≥ 0.90	GFI
A good fit	0.85	≥ 0.90	≥ 0.80	AGFI
A good fit	0.062	≤ 0.05	≤ 0.08	RMR
A good fit	0.075	≤ 0.05	≤ 0.08	SRMR

According to the results, all obtained factor loadings have values higher than 0.3, which indicates relatively high and favorable factor loadings. On the other hand, all significant numbers of model parameters are greater than 1.96. Therefore, in general, taking into account the high level of factor loadings and their significance along with the goodness of fit of the model, we can conclude the validity and reliability of the measurement model of the central category variable.

3.4 Confirmatory factor analysis of strategies variable

3.4.1 Standard coefficients of confirmatory factor analysis of variable measurement model of strategies

As can be seen in Figure 4, all the indicators considered for all the questions related to the variables of the model have a factor load (correlation) above 0.3.

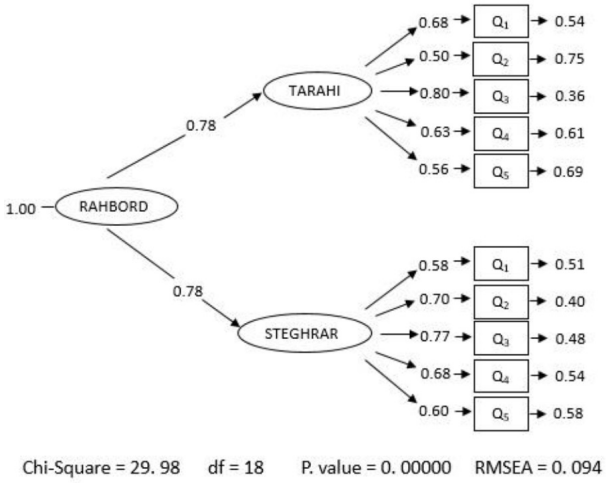

Figure 4: Variable measurement model of strategies in standard estimation mode

3.4.2 Significance of standard coefficients

The model of the significant numbers of the strategies variable shown in Figure 5 shows that all the significant numbers of the current model are greater than 1.96, so all factor loadings of the model are significant.

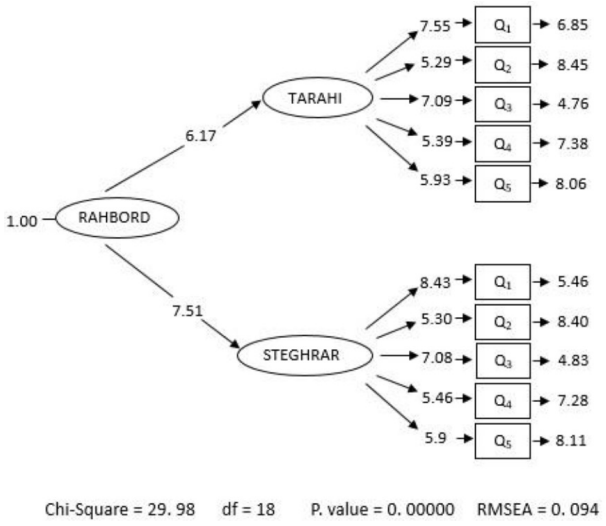

Figure 5: Variable measurement model of strategies

3.4.3 Fit indices of variable measurement model of strategies

As it is clear from the values presented in table 5, all the general goodness of fit criteria of the confirmatory factor analysis indicate the general fit of the proposed model with the data and indicate the excellent fit of the measurement model.

According to the results, all obtained factor loadings have values higher than 0.3, which indicates relatively high and favorable factor loadings. On the other hand, all significant numbers of model parameters are greater than 1.96. Therefore, in general, taking into account the high level of factor loadings and their significance along with the goodness of fit of the model, we can conclude the validity and reliability of the variable measurement model of strategies.

Table 5: Examining goodness of fit indicators

Good result	Research values	Great values	Appropriate values	Fit indices
Great fit	1.66	≤ 2	≤ 3	χ^2/df
A good fit	0.094	≤ 0.08	≤ 0.1	RMSEA
A good fit	0.94	≥ 0.95	≥ 0.90	NFI
A good fit	0.92	≥ 0.95	≥ 0.90	NNFI
A good fit	0.93	≥ 0.95	≥ 0.90	CFI
A good fit	0.91	≥ 0.95	≥ 0.90	IFI
A good fit	0.91	≥ 0.95	≥ 0.90	GFI
A good fit	0.82	≥ 0.90	≥ 0.80	AGFI
Great fit	0.042	≤ 0.05	≥ 0.08	RMR
A good fit	0.075	≤ 0.05	≥ 0.08	SRMR

3.5 Confirmatory factor analysis of outcome variables

3.5.1 Standard coefficients of confirmatory factor analysis of outcome variable measurement model

As can be seen in Figure 6, all the indicators considered for all the questions related to the variables of the model have a factor load (correlation) above 0.3.

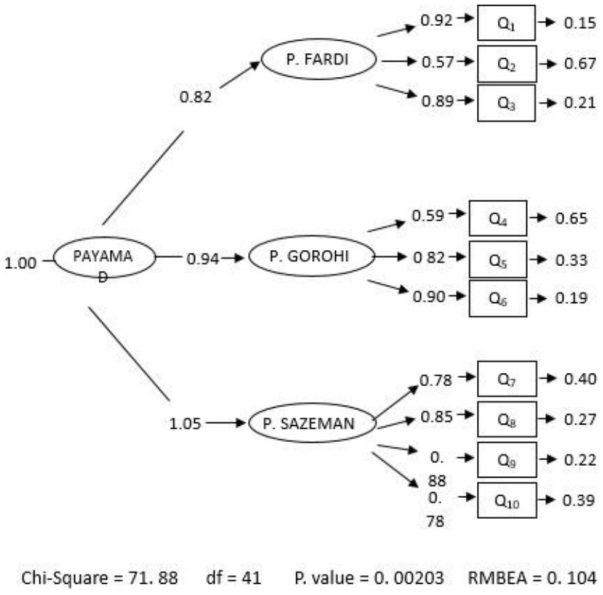

Figure 6: The outcome variable measurement model in the standard estimation mode

3.5.2 Significance of standard coefficients

The model of significant numbers of the outcome variable shown in Figure 7 shows that all the significant numbers of the current model are greater than 1.96, so all factor loadings of the model are significant.

3.5.3 Fit indices of outcome variable measurement model

As it is clear from the values presented in table 6, all the general goodness of fit criteria of the confirmatory factor analysis indicate the general fit of the proposed model with the data and indicate the excellent fit of the measurement model.

According to the results, all obtained factor loadings have values higher than 0.3, which indicates relatively high and favorable factor loadings. On the other hand, all significant numbers of model parameters are greater than 1.96. Therefore, in general, taking into account the high level of factor loadings and their significance along with the goodness of fit of the model, the validity and reliability of the outcome variable measurement model can be concluded.

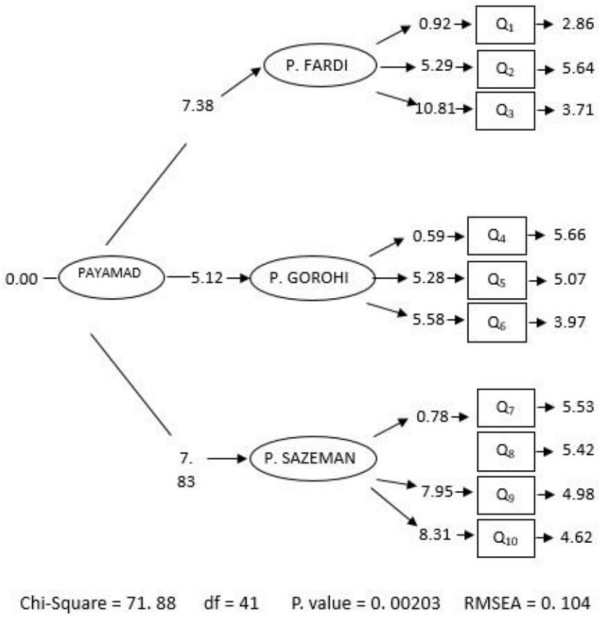

Figure 7: Variable measurement model of outcomes in a meaningful state

Table 6: Examining goodness of fit indicators

Good result	Research values	Great values	Appropriate values	Fit indices
Great fit	1.75	≤ 2	≤ 3	χ^2/df
A good fit	0.104	≤ 0.08	≤ 0.1	RMSEA
Great fit	0.95	≥ 0.95	≥ 0.90	NFI
Great fit	0.97	≥ 0.95	≥ 0.90	NNFI
Great fit	0.98	≥ 0.95	≥ 0.90	CFI
Great fit	0.98	≥ 0.95	≥ 0.90	IFI
A good fit	0.94	≥ 0.95	≥ 0.90	GFI
A good fit	0.84	≥ 0.90	≥ 0.80	AGFI
Great fit	0.058	≥ 0.05	≤ 0.08	RMR
A good fit	0.074	≥ 0.05	≤ 0.08	SRMR

3.6 Confirmatory factor analysis of the intervening conditions variable

3.6.1 Standard coefficients of confirmatory factor analysis of the intervening variable measurement model

As can be seen in Figure 8, all the indicators considered for all the questions related to the variables of the model have a factor load (correlation) above 0.3.

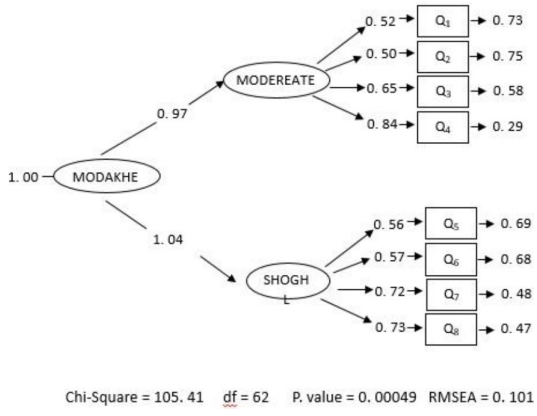

Figure 8: Variable measurement model of intervening conditions in standard estimation mode

3.6.2 Significance of standard coefficients

The model of significant numbers of the intervening condition variable shown in Figure 9 shows that all the significant numbers of the current model are greater than 1.96, so all factor loadings of the model are significant.

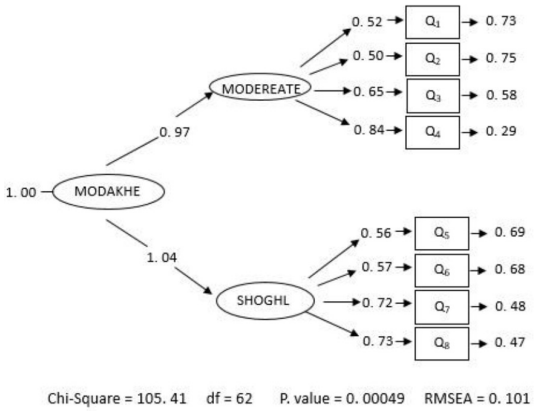

Figure 9: Intervening variable measurement model in a meaningful state

3.6.3 The fit indices of the variable measurement model of the intervening conditions

As it is clear from the values presented in table 7, all the general goodness of fit criteria of the confirmatory factor analysis indicate the general fit of the proposed model with the data and indicate the excellent fit of the measurement model.

Table 7: Examining goodness of fit indicators

Good result	Research values	Great values	Appropriate values	Fit indices
Great fit	1.7	≤ 2	≤ 3	χ^2/df
A good fit	0.1	≤ 0.08	≤ 0.1	RMSEA
A good fit	0.94	≥ 0.95	≥ 0.90	NFI
A good fit	0.93	≥ 0.95	≥ 0.90	NNFI
A good fit	0.94	≥ 0.95	≥ 0.90	CFI
A good fit	0.94	≥ 0.95	≥ 0.90	IFI
A good fit	0.91	≥ 0.95	≥ 0.90	GFI
A good fit	0.82	≥ 0.90	≥ 0.80	AGFI
Great fit	0.036	≤ 0.05	≤ 0.08	RMR
A good fit	0.08	≤ 0.05	≤ 0.08	SRMR

According to the results, all obtained factor loadings have values higher than 0.3, which indicates relatively high and favorable factor loadings. On the other hand, all significant numbers of model parameters are greater than 1.96. Therefore, in general, taking into account the high level of factor loadings and their significance along with the goodness of fit of the model, we can conclude the validity and reliability of the variable measurement model of the intervening conditions.

3.7 Confirmatory factor analysis of the substrate variable

3.7.1 Standard coefficients of confirmatory factor analysis of the bed variable measurement model

As can be seen in figure 10, all the indicators considered for all the questions related to the variables of the model have a factor load (correlation) above 0.3.

3.7.2 Significance of standard coefficients

The model of the significant numbers of the bed variable shown in figure 11 shows that all the significant numbers of the current model are greater than 1.96, so all the factor loadings of the model are significant.

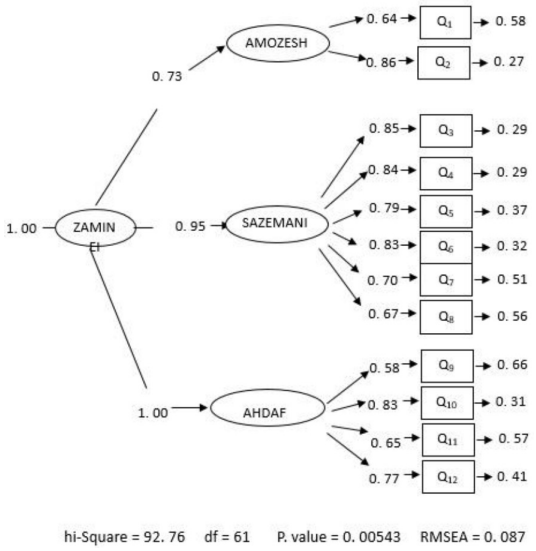

Figure 10: The bed variable measurement model in the standard estimation mode

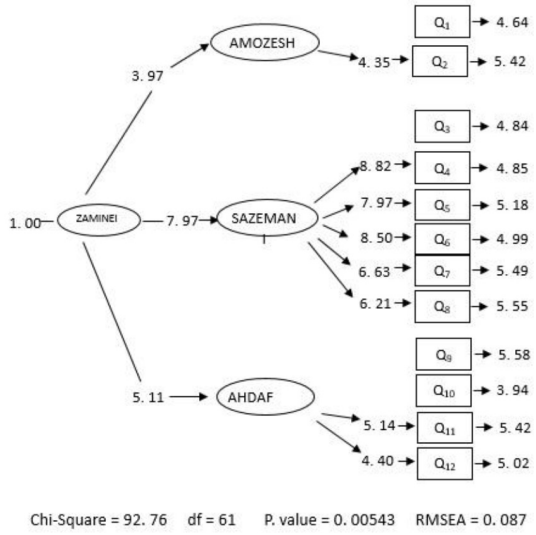

Figure 11: The measurement model of the substrate variable in a meaningful state

3.7.3 Fit indices of the bed variable measurement model

As it is clear from the values presented in table 8, all the general goodness of fit criteria of the confirmatory factor analysis indicate the overall fit of the proposed model with the data and indicate the excellent fit of the measurement model.

Table 8: Examining goodness of fit indicators

Good result	**Research values**	**Great values**	**Appropriate values**	**Fit indices**
Great fit	1.52	≤ 2	≤ 3	χ^2/df
A good fit	0.087	≤ 0.08	≤ 0.1	RMSEA
A good fit	0.93	≥ 0.95	≥ 0.90	NFI
Great fit	0.97	≥ 0.95	≥ 0.90	NNFI
Great fit	0.97	≥ 0.95	≥ 0.90	CFI
Great fit	0.97	≥ 0.95	≥ 0.90	IFI
A good fit	0.93	≥ 0.95	≥ 0.90	GFI
A good fit	0.84	≥ 0.90	≥ 0.80	AGFI
Great fit	0.05	≤ 0.05	≤ 0.08	RMR
A good fit	0.057	≤ 0.05	≤ 0.08	SRMR

According to the results, all obtained factor loadings have values higher than 0.3, which indicates relatively high and favorable factor loadings. On the other hand, all significant numbers of model parameters are greater than 1.96. Therefore, in general, taking into account the high level of factor loadings and their significance along with the goodness of fit of the model, we can conclude the validity and reliability of the bed variable measurement model.

3.8 Research model test

According to the results of the confirmatory factor analysis presented in the structural model in the standard estimation mode and the structural model in the mode of significant coefficients, because all the significant numbers of the model parameters are greater than 1.96, therefore, in total, the results of the confirmatory factor analysis indicate the overall fit of the proposed model with the data and indicate the appropriate fit of the measurement model.

4 Discussion

In this study, in order to evaluate the validity of the proposed theory, the questionnaire method has been used so that we can based on the conceptual model built in the first stage while localizing, the empowerment model is also examined and described in depth, as well as determining the status of each of the final codes. As a dimension of the final research model. In other words, in this section, the researcher seeks to answer the question whether the extracted dimensions are related to the field of empowerment model or not. In this context, the model created as a result of mixed enlightenment stages is tested and evaluated among the researched society. It is worth mentioning that the purpose of conducting this research or the research phase, in addition to validating the model, is to determine the specific factors of the issue, to provide a model for empowering managers and employees in organizations. At this stage of the current research, first, using the survey method, a survey of the studied community has been conducted in relation to the extracted categories, concepts and final codes. The purpose of this work is to determine the status of each of the extracted final codes as a final dimension is the proposed final model.

The results of conducting inferential statistics leading to the confirmation (presence) or rejection (absence) of each of the dimensions of the model resulting from inferential statistics also include the following, which at the beginning (first part) are the results related to the confirmatory factor analysis of the questionnaire constructs (in order, confirmatory factor analysis of the causal conditions variable, confirmatory factor analysis of the central category variable, confirmatory factor analysis of the strategies variable, confirmatory factor analysis of the consequences variable, confirmatory factor analysis of the intervening conditions variable, confirmatory factor analysis of the context variable) It has been then (the second part) the final model.

As shown in table 9, the results related to the confirmatory factor analysis of the questionnaire constructs (confirmatory factor analysis of the causal conditions variable, confirmatory factor analysis of the central category variable, confirmatory factor analysis of the strategies variable, confirmatory factor analysis of the outcomes variable, confirmatory factor analysis of the intervening conditions variable, confirmatory factor analysis of the context variable) are indicated.

5 Research limitations

This research, like other researches and studies, has faced limitations. Among the limitations that the researcher faced in the present study are:

- Due to the time limitation, this research was conducted at the level of organization employees, and it has been solely focused on the study of the existing situation - due to its accessibility as a statistical population.

  Also, one of the other limitations of the current research is that due to time constraints, it was not possible to examine more dimensions and angles in this research.

- Other limitations of the current research are limitations in literature, theoretical background and research history.

- Also, one of the main inherent limitations of survey-based research is the inaccuracy of the results due to the self-evaluation process, which this research is not exempt from.

- The mentioned variables and the initial model in this research are derived from interviews and theorizing data of the foundation and the researcher's analysis, so it is possible that the type of relationship between the variables is different based on new perspectives.

Table 9: The results related to the confirmatory factor analysis of questionnaire constructs

Confirmatory factor analysis	Factor load	Significant number	Appropriate goodness indicators	Result
Causal condition variable	All the variables as well as the indicators considered for all the questions related to the variables of the model have a factor load above 0.3.	All significant numbers of model parameters are greater than 1.96.	Goodness of fit indices all indicate the desirability of the model.	The validity and reliability of the measurement model of this variable can be concluded.
The central category variable	All the variables as well as the indicators considered for all the questions related to the variables of the model have a factor load above 0.3.	All significant numbers of model parameters are greater than 1.96.	Goodness of fit indices all indicate the desirability of the model.	The validity and reliability of the measurement model of this variable can be concluded.
Variable strategies	All the variables as well as the indicators considered for all the questions related to the variables of the model have a factor load above 0.3.	All significant numbers of model parameters are greater than 1.96.	Goodness of fit indices all indicate the desirability of the model.	The validity and reliability of the measurement model of this variable can be concluded.
Outcome variable	All the variables as well as the indicators considered for all the questions related to the variables of the model have a factor load above 0.3.	All significant numbers of model parameters are greater than 1.96.	Goodness of fit indices all indicate the desirability of the model.	The validity and reliability of the measurement model of this variable can be concluded.
Intervening condition variable	All the variables as well as the indicators considered for all the questions related to the variables of the model have a factor load above 0.3.	All significant numbers of model parameters are greater than 1.96.	Goodness of fit indices all indicate the desirability of the model.	The validity and reliability of the measurement model of this variable can be concluded.
Substrate variable	All the variables as well as the indicators considered for all the questions related to the variables of the model have a factor load above 0.3.	All significant numbers of model parameters are greater than 1.96.	Goodness of fit indices all indicate the desirability of the model.	The validity and reliability of the measurement model of this variable can be concluded.

6 Study suggestions

- Development of extensive national infrastructure necessary to facilitate the establishment of a system based on administrative empowerment in organizations
- Fundamental changes in the existing laws and regulations and updating them based on the needs of the society and the organization
- Not allowing the intervention of power centers outside the organization on the process of making organizational decisions
- Providing a supervisory system for top managers for individual development in the organization
- Use of experts in assigned matters
- Adjustment of excess and unproductive human resources in the organization
- Knowledge interaction between managers and employees
- Employing capable people at the top of the pyramid of organizations (managers and efficient employees)

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