

Identifying and Ranking the Effective Factors on the Organizational Indifference through Fuzzy Analytical Hierarchy Process (FAHP) (Damavand Municipality as a Case Study)

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Abstract

The purpose of this study is to recognize and rank the effective factors on the organizational indifference from employees' perspective in Damavand municipality. This research is a practical study from purpose perspective and is a descriptive study from methodological view. In order to rank the effective factors on the organizational indifference, Fuzzy Analytical Hierarchy Process has been used. A Delphi method and a Standardized questionnaire that was developed by Danaeifard (2010) have been used for collecting the data. The results of this study reveal that the structural, managerial, motivational, and personal factors are the main effective factors on the organizational indifference in Damavand municipality respectively. The most effective factor in structural factors is bureaucracy, discrimination in the managerial factors, low salary in the motivational factors, and lack of knowledge about individual abilities in the personal factors.

Keywords: Organizational Indifference, Structural Factors, Motivational Factors, Managerial Factors, Individual Factors, Analytical Hierarchy Process

Introduction

The managers usually discover the manpower problems through several cues such as lack of creativity and innovation in work, few productivity, lack of motivation in the work, and turnover. One of the most important cues of manpower unproductivity is the employees' indifference toward organization. The organizational indifference is destructive factor in the organizations that result in its decline latently. The organizational indifference is a representative of several problems in the organizations and the managers should pay attention to its destructive outcomes. The present study was aimed to recognize and rank the effective factors on the organizational indifference through Fuzzy Analytical Hierarchy Process (FAHP) in Damavand Municipality.

Literature review

Organizational indifference

Kaplan and Sadok refer to the organizational indifference as a condition of lacking inner sense and emotion, lack of interest and emotional involvement toward environment. Michael and Coniston define the organizational indifference as a subjective and objective feeling of detachment and separation between person and society (social institutes and structures such as politics, family, and religion) (Jahanshahi, 2009). Indifference is the outcome of person's continuous unsuccessfulness in achieving goals in an especial condition and he/she avoid from unsuccessfulness resources (Rezaeian, 2006). The psychologists believe that indifference is the outcome of person's continuous unsuccessfulness in achieving goals in an especial condition and he/she avoid from unsuccessfulness resources (Danaeifard and Eslam, 2010: 450-460). In other words, organizational indifference refers to a condition that a person is completely indifference toward surrounding phenomenon and organizational successfulness or unsuccessfulness (Kramer, 2006: 14-24). Also indifference is a deviation from organizational equilibrium conditions. Organizational indifference is a destructive factor in the organizations and is considered as a continuous destruction, slow fall, and talent crisis (Raeichi, 2010). Organizational managers react to this issue differently. Some of them only are interested toward this issue, some others are indifference toward it, some others believe that this challenge can be resolved through education, and some others (inexperienced managers) do not pay attention to this interest. They do not see any problem in their organization. If the organizational indifference is considered as critical problems such as drop in liquidity and lack of product sale, then it is possible to see it as a destructive factor in the organization. Such attitude toward organizational indifference is very considerable because of its effects on the different organizational systems (Willemsen and Keren, 2009: 42-59). The clues of organizational indifference can be categorized in two groups including behavioral and functional clues that are presented in the following section.

Behavioral clues: these refer to the clues that are observable in the persons' overall behavior. Lack of respecting organizational rules, regulations, goals, wasting organizational resources and facilities, and lack of attachment feeling toward organization are the most important behavioral clues of organizational indifference. An indifferent person does not pay attention

to organization's unsuccessfulness or loss. The feeling of detachment is easily observable in an indifferent person and it is observable in the first impression (Byrd, 2008).

Functional clues: these refer to the clues that are observable in the employees' performance, functions, and their behavior with clients. The indifferent person does not strive in doing his/her organizational functions. Such person not only does not attend organizational goals and mission and his/her work, but also has not any interest in the coordination with organization. An indifferent person has not any interest to undertake new responsibilities and strive to shirk the responsibilities (Byrd, 2008).

The reasons of employees' indifference: these reasons can be categorized in four groups including managerial, structural, motivational, and personal factors. These factors have been presented in the following section.

Managerial factors: these refer to the factors that are derived from poor management conditions and improper planning by organizational managers. Some of these factors are indicated in the following section.

- Subordinates' inattention toward organizational problems and interests: this inattention can be derived because of different reasons such as subordinates' indifference toward organizational interest, subordinates' inexperience, lack of sufficient knowledge, lack of appraisal measures (Mirhoseyni Zavareh, 1995: 68-73).
- Lack of meritocratic systems: the employees have sensitive look toward managerial decisions about themselves. For example, there is a social comparison in an appointment, while selecting an unqualified employee results in dissatisfaction and indifference. There is not any meritocratic system in the poor organizations. In such organizations, the promotions are not based on the employees' capabilities. In other words, the promotion system in these organizations is based on the employees' obey by orders (Kramer, 2006: 14-24).
- Discrimination with employees' expertise: there are some professional and qualified employees that have not suitable status in their organization because of the discrimination (Kramer, 2006: 14-24).
- Lack of knowledge about employees' needs: the employees have different needs. Some of them are encouraged through more salaries and some other are satisfied through encouragement. The managers of the traditional organizations only satisfy the employees' physiological and safety needs (the lowest needs in the Maslow hierarchy of needs). If these needs are not be satisfied the employees have not any satisfaction and then strive to decrease others' motivation. Finally, this continuous process results in indifference (Jahanshahi, 2009).
- Prejudice: this is the undesirable outcome of power concentration in the organization. Prejudice results in the organizational resources and capabilities waste and poor in the employees' abilities. This leads to drop in the employees' motivation and also increase indifferences among them (Mirhoseyni Zavareh, 1995: 68-73).
- Inattention toward employees' welfare issues: this leads to decrease employees' motivation. The employees may leave the organization and are employed in another one (Byrd, 2008).

Structural factors: these refer to the factors that are observable in the organizational structure. Some of these factors are indicated in the following section.

- Lack of coordination between organizational and individual goals: this is one of the most important and fundamental reasons of indifference in the organizations. When an employee perceives that the organizational goal achievement has not any effect on his/her goals, he/she will be indifference toward organization (Leander, 2009).
- Intemperate bureaucracy in the organization: the past experiences show that sensitive bureaucracy (such as comprehensiveness of the organization, division of tasks, and formalization and regulation of the behaviors and sessions) make the employees' functions meaningless and also increase their indifference toward organization (Raeichi, 2010).
- Decision making pyramid: decision making process in the traditional organizations is up-to-down. In this system, the employees have not any effects on the decisions. Every decision is made with manager's confirmation (Mirhoseyni Zavareh, 1995: 68-73).
- The employees' ignorance from the results of their performance: this is one of the most important sources of the employees' indifference. In other words, insufficient feedback from done work and lack of performance standard result in more costs (Willemsen and Keren, 2009: 42-59).

Motivational factors: these refer to the factors that are observable in the employees' motivation. Some of these factors have been presented in the following section.

- Low salaries: if the employees perceive that their salary is less in comparison to their work, other employees, or even employees of other organizations, these decrease their motivation and also result in indifference toward work (Jahanshahi, 2009).
- Lack of timely payment of salaries: if an organization has not any regulation plan for salary payment and pays their salaries disorderly, this leads to decrease the employees' motivation and this also makes them indifferent toward their organization (Kramer, 2006: 14-24).
- Lack of attractiveness in the rewards: if the rewards that the organizations consider for their employees have not good attractiveness, the employees have not sufficient motivation for doing their functions. For example, non-physical rewards are the most important factors in the employees' motivation (Byrd, 2008).

Personal factors: these refer to the factors that are related to the employees' personality characteristics and are exclusive for everyone. Some of these factors have been presented in the following section.

- Lack of team work spirit: one of the most important factors in the organizational successfulness is integrated workteams in the organizations. It is should be remembered that the organizational members and employees must have team working spirit for having an effective group in the organizations. If the employees that have not team working spirit and are not interested toward participation in the team working, they will be indifferent to the organization and its goals (Murphy and Davey, 2007: 17-30).
- Lack of creativity and innovation spirit: the employees that have creativity and innovation spirit, have more interest on their work and strive to have more creativity and innovation in their work. These employees pay attention to the organizational goals and plans and also create a powerful relationship between themselves and the

organization. If the employees have not such spirit will be indifferent toward their work (Murphy and Davey, 2007: 17-30).

- Lack of knowledge about employees' abilities: everybody has his/her own abilities that they are should be considered at selecting job. The employees also strive to select which job that is compatible with their abilities. If the employees choose an inappropriate job that is not compatible with their abilities, they will be uninterested toward their job in the futures and finally this will results in their indifference toward work (Byrd, 2008).

The employees' indifference toward organization can be observed in four areas. These include indifference toward manager, work, client, and coworkers. Each of these indifferences has been described in the following sections.

Indifference toward manager: this includes the employees' avoidance from expressing their abilities for doing more activities and do not make their manager aware from work progress. They also postpone managers' expectations or even lie for avoiding from their responsibilities (Kramer, 2006: 14-24).

Indifference toward client: this indifference refers to the conditions that the employees limit the client services to a specific time (Leander, 2009).

Indifference toward coworkers: in this indifference, the employees do not participate in the group works and have not any friendly relationship with their coworkers (Willemsen and Keren, 2009: 42-59).

Indifference toward work: this indifference refers to the conditions that the employees have not sufficient accuracy in their work, do not pursue their works seriously, have not any creativity and innovation to in the works, and consider the organizational functions as valueless ones (Murphy and Davey, 2007: 17-30).

The organizational indifference results in several problems for organizations. Some of these problems have been presented in the following section.

- The employees do their functions only for salary and have not sufficient motivation in their work (Jahanshahi, 2009).
- Using any opportunity for escaping from work (Danaeifard and Eslami, 2010: 2010: 450-460).
- Indifference toward organizational problems and even accelerating its process (Jahanshahi, 2009).
- Indifference toward preserving organizational resources (Mirhoseyni Zavareh, 1995: 68-73).
- Inattention to creativity and innovation (Leander, 2009).
- Inattention toward taking responsibility in terms of problems (Jahanshahi, 2009).

Fuzzy Analytical Hierarchy Process

Fuzzy Analytical Hierarchy Process (FAHP) is one of the most important techniques of multi-variable decision making method that was introduced by Saaty for the first time. This technique can be beneficial in the problems with several alternatives and several measures

(Saaty, 2006). This combines the experts' viewpoints and evaluations and then converts the complex decision-making system to a simple one. In this technique, the evaluation is done based on the scale for examining relative importance of the paired comparisons in every measure. This technique also examines the quantitative and qualitative measures effectively. Although this technique uses the experts' mental abilities and competencies to comparison, but this point should be considered that this technique can not reflect their thought style completely. In other words, the use of fuzzy sets has more compatibility with experts' verbal descriptions and so this is better to predict the long-term phenomenon and deciding based on them (Hong, 1995). Lowhorn and Patrick(1983) suggested a Fuzzy Analytical Hierarchy Process (FAHP) that is based on the logarithmic least squares method. This method has not been accepted extensively because of its complexity. Development analysis technique is another method that was suggested by Chang in 1996 (Bimal, 2010: 6779). Triangular numbers are used in this method. The fuzzy scales that are using in the fuzzy analytical hierarchy process have been presented in the following fig.

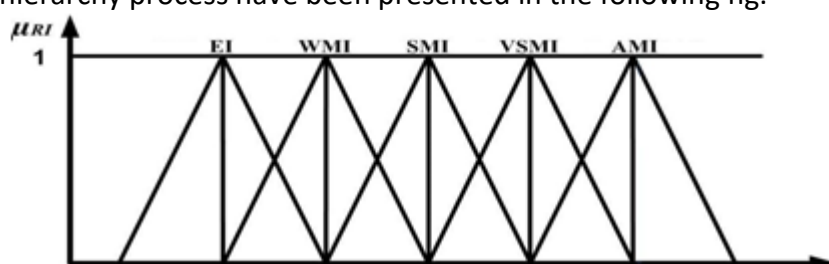


Fig 1: the fuzzy scales

The concepts and definitions of fuzzy analytical hierarchy process are presented in the following section based on the development analysis method.

Consider $M_1 = (l_1, m_1, u_1)$ and $M_2 = (l_2, m_2, u_2)$ as two triangular numbers in the fig 2.

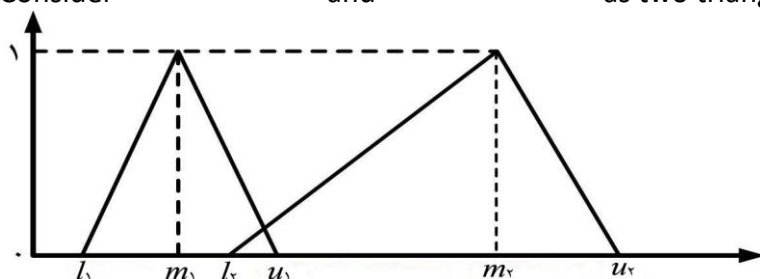


Fig 2: triangular numbers of M1 and M2

The mathematical operators of the previous numbers have been presented in formulas 1, 2, and 3.

1: $M_1 + M_2 = (l_1 + l_2, m_1 + m_2, u_1 + u_2)$

2: $M_1 * M_2 = (l_1 * l_2, m_1 * m_2, u_1 * u_2)$

3: $M_1^{-1} = \left(\frac{1}{u_1}, \frac{1}{m_1}, \frac{1}{l_1} \right), \quad M_2^{-1} = \left(\frac{1}{u_2}, \frac{1}{m_2}, \frac{1}{l_2} \right)$

It is should be remembered that the multiplication of two triangular fuzzy numbers or their reverse is not a triangular fuzzy number. These formulas represent an approximation of the actual multiplication of two triangular fuzzy numbers or a reverse number. In the development approach, the S_k (a triangular number) is resulted for every matrix rows from following formula.

$$4: S_k = \sum_{j=1}^n M_{kj} * \left[\sum_{i=1}^m \sum_{j=1}^n M_{ij} \right]^{-1}$$

In the formula 4, K refers to the number of row and i,j are representative of alternatives and measures respectively.

The degree of every S_k should be calculated in comparison to each other after measuring S_k in the development analysis approach. All in all, degree of M_1 and M_2 ($V(M_1 \geq M_2)$), as triangular fuzzy numbers is measured through formula 5.

$$5: \begin{cases} V(M_1 \geq M_2) = 1 & \text{if } m_1 \geq m_2 \\ V(M_1 \geq M_2) = hgt(M_1 \cap M_2) & \text{otherwise} \end{cases}$$

$$hgt(M_1 \cap M_2) = \frac{u_1 - l_2}{(u_1 - l_2) + (m_2 - m_1)}$$

On the other hand, degree of every triangular fuzzy number from other k fuzzy number can be measured through formula 6.

$$6: V(M_1 \geq M_2, \dots, M_K) = V(M_1 \geq M_2), \dots, V(M_1 \geq M_K)$$

In order to calculate the measures weights in the paired comparisons, the formula 7 can be used.

$$7: W'(x_i) = \text{Min}\{V(S_i \geq S_k)\}, \quad k = 1, 2, \dots, n. \quad k \neq i$$

Therefore, vector of measures weights is:

$$8: W'(x_i) = [W'(c_1), W'(c_2), \dots, W'(c_n)]^T$$

This is the coefficients anomalous vector of fuzzy analytical hierarchy process.

The anomalous results of formula 8 can be normalized through formula 9. The normalized results of formula 9 is known as W.

$$9: W_i = \frac{w'_i}{\sum w'_i}$$

Regardless of different benefits of AHP, this technique has several deficiencies that some of them have been indicated in the following section.

- This technique examines the unbalanced scale of judgment.
- This technique does not consider the uncertainties in the individual judgments.
- The results of this ranking are inaccurate approximately.
- The decision-makers' mental judgments, selection, and performance have many effective results.

In this method, the questionnaire is developed based on the concept of fuzzy analytical hierarchy process and the purpose of questionnaire is paired comparison of the measures in every level in comparison to the higher level. The fuzzy numbers that were considered to paired comparison of measures have been presented in the table 1.

Table 1: the trihedral fuzzy numbers

Degree of importance	Definition	Triangular fuzzy numbers
9	Extremely important	9,9,9

7	Very important	6,7,8
5	Important	4,5,6
3	Relatively important	2,3,4
1	Similar	1,1,1

Research methodology

This research is a practical study from purpose perspective and is a descriptive study from methodology view. The first statistical population of this includes all of the organizational managers in Damavand Municipality such as financial, administrative, civil services, transportation, and technical managers. The members of this population are asked to recognize the effective factors on the organizational indifference through Delphi method. The second statistical population includes decision-making group of the employees in this organization. These members were asked to answer the weights questionnaire. The necessary data was collected through two questionnaires. The first questionnaire that was answered by the first sample members is resulted in recognizing the effective factors on the organizational indifference. The second questionnaire was developed based on the Saaty scale and paired comparison. This was offered for decision-making group to measure the relative weights of measures and sub-measures of organizational indifference.

The overall framework of the study and its process has been presented in fig 2.

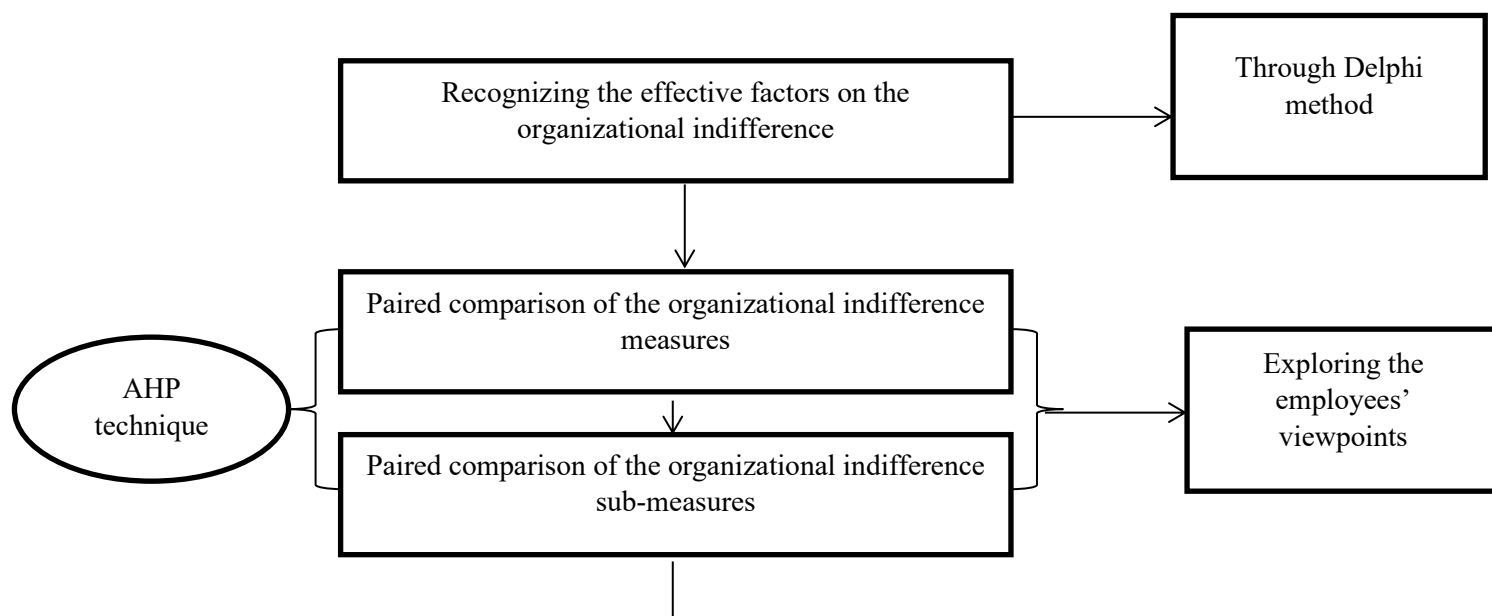


Fig 2: the conceptual framework of study

First step: recognizing the main measures of organizational indifference

The first questionnaire of the study has been offered for the first statistical population members in this step. This questionnaire was developed in both open and close questions and then was answered by respondents. The effective factors on the organizational indifference have been recognized and categorized. The results of this step have been presented in the fig 3.

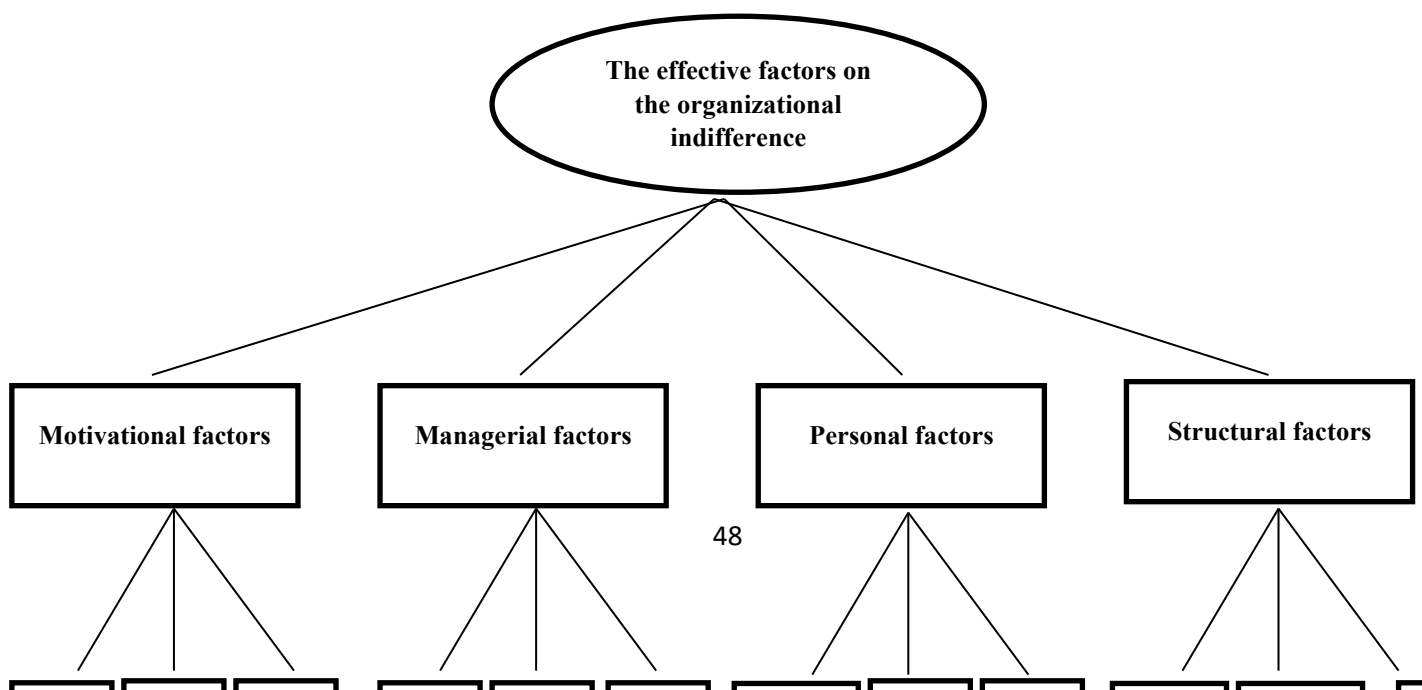


Fig 3: the analytical hierarchy structure of the study**Step 2: measuring the weights of main factors and sub-factors**

In order to calculate the measures' weights (four main factors) and their sub-measures, the second questionnaire has been developed in this step. This questionnaire was developed based on the paired comparison. Therefore, there are 6 comparisons in this steps ($(n * (n-1)/2)$).

Findings

Every measure's final weight is resulted from multiplying every sub-measure's weight with main measure weight. The results of final weights have been presented in the table 2.

Table 2: the results of weights of effective factors and sub-factors on the organizational indifference

Factors	Weights	Sub-factors	Weights	Final weights
Structural factor	0.339	Excessive bureaucracy	0.513	0.201
		Lack employees' knowledge about the results of performance	0.249	0.099
		Lack of coordination between organizational and individual goals	0.238	0.080

Managerial factors	0.271	Lack of meritocratic system	0.283	0.076
		Discrimination	0.365	0.098
		Prejudice	0.352	0.095
Motivational factor	0.205	Low salaries	0.482	0.098
		Lack of salaries attractiveness	0.362	0.072
		Lack of timely payment	0.156	0.031
Personal factor	0.185	Lack of knowledge about personal abilities	0.568	0.105
		Lack of group work spirit	0.071	0.013
		Lack of creativity and innovation spirit	0.361	0.066

The results of table 2 show the effective factors on the organizational indifference in four groups including structural, motivational, personal, and managerial factors. This table presents every factor's weight and also the weights of every sub-factor. The results of the second questionnaire that has been developed based on Saaty scale are presented in table 3.

Table 3: the rates and weights of the effective factors on the organizational indifference

Factors	Weights	Rates
Structural factor	0.339	1
Managerial factor	0.271	2
Motivational factor	0.205	3
Personal factor	0.185	4

Table 4: the rates and weights of the effective factors on the organizational indifference

Factors	Sub-factors	Weights	Rate
Structural factor	Excessive bureaucracy	0.201	1
	Lack employees' knowledge about the results of performance	0.099	2

	Lack of coordination between organizational and individual goals	0.080	3
Managerial factors	Lack of meritocratic system	0.098	1
	Discrimination	0.095	2
	Prejudice	0.76	3
Motivational factor	Low salaries	0.098	1
	Lack of salaries attractiveness	0.072	2
	Lack of timely payment	0.031	3
Personal factor	Lack of knowledge about personal abilities	0.105	1
	Lack of group work spirit	0.066	2
	Lack of creativity and innovation spirit	0.013	3

With regard to the results of the second questionnaire from second statistical population, weight of every factor (structural, managerial, motivational, and personal factors) has been measured through fuzzy analytical hierarchy process. The results of this measurement have been presented in table 4.

Conclusion

One of the most important interests of the organizational managers is motivating the employees for doing their functions and achieving organizational goals. One of the main obstacles in this area is organizational indifference that is considered as a destructive and obstacle factor in achieving organizational goals. The organizational indifference leads that the organization and its employees has not any motivation and effort to achieve organizational goals. On the other hand, organizational indifference is a serious clue for organizational loss from employees' perspective. If the managers do not develop policies for eliminating indifference, the organization not only face with different challenges, but also its survive will be challenged. The results of this study reveal that the structural factor is the most important effective factor on the organizational indifference. These results also show that extensive bureaucracy is the most important sub-factor among other components of structural factor that affects organizational indifference in Damavand Municipality. Lack of coordination between organizational and individual goals are the most important factors among other components of managerial factors that affect organizational indifference. If the employees have conflict between organizational and individual goals, they strive to achieve their personal goals and have not any motivation for achieving organizational goals. Lack of knowledge in terms of the results of employees' performance lead that the employees cannot be aware from their strengths and weaknesses and also they feel that their performances are not important for managers. Organizational indifference is the main result of these conditions. The second effective factor in organizational indifference is managerial factor that is derived from managerial and planning weaknesses. Discrimination is the most important factor among other sub-factors of managerial factor. Prejudice in the organization leads that the employees are not appointed based on their competencies and abilities. This results in the employees' intendancy toward organization. Prejudice and lack of meritocratic system are

the most important managerial factors constituting organizational indifference. The role of motivational factors is very important and effective in organizational indifference. Inattention to the employees' motivational issues result in their discouragement. Low salaries, lack of attractiveness in rewards, and lack of timely payment are the main effective factors in the organizational indifference. The personal factor is the least important and effective factor on the organizational indifference. This factor is related to lack of knowledge about personals' knowledge. This leads that employees pay not any attention to their work and have not any tendency and motivation. Lack of creativity and innovation spirit and lack of group work spirit are the main effective factors in organizational indifference. All in all, the results of this study indicate that managers must pay attention to decreasing bureaucracy and selective approach, increasing salaries, and coordinating the employees' performance for decreasing the employees' organizational indifference. Also it is important that the managers help their employees to have sufficient information about their job.

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