E-ISSN: 2717-3453 | P-ISSN: 2783-1442

Journal of Fuzzy Extension and Applications

www.journal-fea.com

J. Fuzzy. Ext. Appl. Vol. 1, No. 2 (2020) 84–97.

Paper Type: Research Paper

Analyzing the Barriers of Organizational Transformation by Using Fuzzy SWARA

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Citation:

Ghasemian Sahebi, I., Arab, A., & Pendar Toufighi, S. (2020). Analyzing the barriers of organizational transformation by using fuzzy SWARA. *Journal of fuzzy extension and application, 1* (2), 84-97.

Received: 20/01/2020 Reviewed: 17/02/2020 Revised: 22/03/2020 Accept: 16/05/2020

Abstract

The crucial role of bureaucracy in the economic, political, socio-cultural and political structures, and its impact in achieving the goals of organization is so important that in order to achieve the development, change directions consists of purifying and modernization of the administrative system in Iran also seems necessary. An important part of the transportation industry in each country, is the airports. So, dealing with the bureaucracy airports to implement better practices and removing unnecessary processes is the most issues. Hence, it can be stated that the aim of this study is to identify barriers of transformation in the organization administrative and then prioritizing these barriers in Mehrabad airport. For this purpose, the grounded theory and Fuzzy SWARA methods was used to identifying the barriers and prioritizing them. Grounded theory results showed that cognitive barriers, structural barriers, participation barriers, economic and income barriers, legal barriers, strategic barriers, and management barriers are the barriers of the transformation in the Mehrabad airport administrative system. The Fuzzy SWARA method used to prioritize these barriers, which according to the results, the structural barriers were the important barriers. Then cognitive and legal barriers were placed in the next rank. At the end, some solutions have been presented for overcoming these barriers in the Mehrabad airport.

Keywords: Barriers, Organizational transformation, Grounded theory, Fuzzy SWARA.

1 | Introduction

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The present world is the world of changes and transformations [1]. In this regard, Drucker says: 'the first step for preparing ourselves in the present era is to forget yesterday' [2]. In the business world of today, organizations face with important conditions such as global competition, reduced cycle of technology innovation, universal and timely access to information, and also extensive changes in cultural, social and political environments, which have challenged stable competitive advantage, and more importantly, their survival [3]. So, in such turbulent conditions, organizations for their survival are compelled to coordinate themselves with this accelerating and unprecedented changes, and in parallel with hardware changes update their manpower and software, too [4].

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http://dx.doi.org/10.22105/jfea.2020.249191.1010

The development of each country is closely connected to the administrative system and its effectiveness. The determinant role of administrative system in economic, political, social and cultural structures and its effect in realizing objectives of socio-political systems is very important. Therefore, administrative system because of association with other structures and affecting them has been of great importance. It is obvious that the efficiency of administrative system reform as a tool for managing and governing, a tool for providing sensitive and essential services to the community, a tool for dealing with necessary and special conditions, and finally a context for achieving economic and social growth and development is not only feasible by focusing on personnel issues, organization, paperwork, eliminating, merging, and dissolving departments, but also the traditional structure introverted and inflexible of administrative system with its hierarchical infrastructure in which task is completely separated of process requires profound changes and sometimes surface changes at different levels of the administrative system of each country which is possible by government's effective and accurate planning [5]. Administrative reform follows several processes such as employees' public participation, reforming administrative structures, appropriateness of duties and authorities, empowering employees and managers, authorities' responsibility against citizens, monitoring administrative system, and development of information practices [6].

The transportation industry isn't considered as the only factor in the development of a country and there are many other factors causing economic growth and development, but it should be noted that transportation is one of the key elements in economic development. The economic impacts of transportation can be observed in all economic activities such as agriculture industry, services, tourism, etc. One of the most important parts of transportation industry in each country is its airports. In the present century aviation industry has an important role in the relations among different countries around the world, culture exchange, showing economic and military powers and acceleration of critical affairs. Airports because of having various potentials in countries' economic growth and contributing in creating stable development play important role [7]. The value and importance of airports in today's world is to the extent that some experts describe airports as economic locomotive of each country and believe that the existence of efficient and prosperous airports is a factor of economic growth and stable development. Therefore, attention to the administrative system of airports for better implementation of activities and elimination of unnecessary processes are of the most obvious issues and the most important mission of the International Airports Union is to integrate airports' activities, determine policies and policy makings and improve its administrative system for faster workflow of works. Hence, paying attention to changes in the administrative system of airports is very essential to gain an appropriate and worthy position in the region.

Before starting change process, the organization must try to identify executive barriers for implementation of change and transformation and prepare itself to deal them properly and reasonably. Therefore, since there are many barriers in changing the administrative system of any organization, so the questions arising in this study are: "What are the main executive barriers in changing administrative system of country's airports company? Among these barriers, which has a greater priority than others and exacerbates other barriers and generally cause the failure of the project creation of change and transformation in administrative system of country's airports company?"

According to what was said, it can be stated that the goal of this research is to identify barriers of organizational transformation and then prioritize them. The highlights of this research as follows:

- *This study proposes an integrated method to barriers of organizational transformation in aviation industry.*
- *Using the grounded theory as a powerful qualitative technique identifying the barriers.*
- *SWARA method extended with fuzzy numbers to obtain the weights of barriers.*
- *We apply Fuzzy Sets theory to handle the imprecise information in the real-world problems.*

2| Research Background

2.1| Why Transformation?

Organizations are always subject to change and transformation and since these changes are caused by human, so it is necessary to assess change's contexts in him, both as the acceptor of change and as the creator of change. Most of rapid and accelerated changes cause unstable and transient behaviors and temporary improvement in organizations and this is due to this fact that human resources under subtle perception of organization's new situation and managers' expectations, act to cosmetic change in his behavior. Hence, we can conclude that organizational change and improvement is a function of the staff's behavioral changes and particularly managers. Therefore, as long as the senior management of an organization hasn't thought about the idea of change and improvement in the organization, it can't be expected to change and improve the organization [8].

The companies usually change to become global and people's thoughts and spirits, individually or as a group, are mobilized to reach the goals of all interest groups including: customers, employees and shareholders and anyway humans are the productive force and impetus for changing systems, structures and organizations. Usually it may that organizational change and transformation is created to transit from one stage of development to another one, organizations become mature by transition from different stages of development. Before making a decision about which of the aspects of the organization needs to be improved, the strengths and weaknesses of the organization must be analyzed. In this regard, needs assessment is of particular importance [9].

Organizational change firstly requires examining and diagnosing problem. Identifying problem and providing real problem is half of the change. If managers of changes scenario make mistake in defining problems, they will pay exorbitant costs, because it will direct organization and its resources towards the goals that haven't been designed towards the actual needs of the organization and can't be responsible for problems. Change management more than anything should examine and identify strategies for problem solving and its dimensions [10]. The message of most successful and unsuccessful administrative reforms in the world has been that transformation is rarely by chance. The success of administrative reform is guaranteed if people are responsible for its management and governance who have serious determination and clear and acceptable view about the future and reform path [11]. The responsible organization for management of administrative system reform, i.e. country's management and planning organization has summarized the main barriers to change country's administrative system as follows [3]:

- *Resistance of groups affected by the reforms.*
- *Political basic Cost-Benefit measurement that concluded from Administrative revolution.*
- *Disagreement in goals, view and desirable future of country's administrative system.*
- *Disagreement in policies and strategies of administrative reform.*
- *Turbulent political environment.*
- *Little communication and connection with international environment.*

Regardless of overcoming political attitude in identifying barriers to change country's administrative system and ignoring structural existing realities and quantity and quality of government employees among the barriers of administrative reform in this report had already been expressed as globalization and its requirements and expectations as one of the threats and weaknesses of administrative system [12], if globalization and its requirements and expectations are considered as a threat and weaknesses for administrative system, therefore how little communication and connection with international environment has been considered as an barrier to change administrative system [13]. *Table 1*, shows the background of some important studies:

Table 1. The background of studies.

N	Definition	Authors
1	Organizational revolution is a respond to changes in the organizational beliefs, attitudes, values and structure, so that these factors can be adjusted aligned with technologies, markets, and challenges in the light of the speed of change.	[14]
2	Organizational revolution can be defined as a programmed and stabilized activity for applying behavioral sciences in improvement of systems via analytical and research methods.	[15]
3	Organizational revolution includes planned process of changes covering organizational culture which institutionalizes collective activities.	[10]
4	Organizational revolution aims at promoting compatibility of structures, processes, strategies, individuals, organization culture that tries to propose new and creative solutions and welcomes renovation.	[16]
5	Organizational revolution is meant changes in processes in all levels of an organization that fulfillment of goals are realized.	[7]
6	It has plans for changing the organization culture according to theories, research and behavioral sciences techniques.	[17]

Literature review results about change in the administrative system and barriers showed that none of the previous researchers have provided a general framework for this purpose, showing all the barriers in the way of implementing the change in the administrative system. Also as yet, no studies have examined these barriers in country's airports company. For this purpose, in this study the researchers tried to provide an overall and comprehensive framework.

2.2| Why Grounded Theory?

The aim of this study is to develop a comprehensive model, which can identify the administrative barriers to change the administrative system of the Mehrabad airport. In order to develop this paradigmatic model, the grounded theory and Fuzzy SWARA were used. In fact, this study tries to investigate administrative barriers to create changes in the administrative system of country's airports company in actual mode and obtain an in-depth and comprehensive explanation of this phenomenon by making a model based on the experiences and attitudes of experts. In order to achieve this goal and based on the data-based theory approach, two secondary objectives were chosen for this study which include the following:

– *Introducing the approach of data-based theory as efficient way to identify executive barriers.*
– *Assess and prioritize identified barriers and determine their importance.*

Above objectives are proportional to identify executive barriers in creating changes in administrative system. The realization of these objectives requires the application of appropriate research design and methodology, which will be discussed in this section.

2.3| Fuzzy Sets Theory

Fuzzy set theory, which was introduced to deal with problems in which a source of vagueness is involved, has been utilized for incorporating imprecise data into the decision framework. A fuzzy set $\widetilde{M}$, can be defined mathematically by a membership function $\mu_{\widetilde{M}}(x)$, which assigns each element x in the universe of discourse X a real number in the interval [0, 1]. The higher the value of $\mu_{\widetilde{M}}(x)$, the higher the degree of membership of x in $\widetilde{M}$ [18].

Triangular and trapezoidal fuzzy numbers are the most common used fuzzy numbers both in theory and practice. Triangular fuzzy numbers are more practical in application because of their calculation easiness and features [19]. So, triangular fuzzy numbers are preferred for representing the linguistic variables in this study.

Let $\widetilde{M} = (l, m, u)$ is a triangular fuzzy number where l, m and u represent the smallest possible value, the most promising value, and the largest possible value, respectively and can be defined as *Eq. (1)*:

$$\mu_{\widetilde{M}}(x) = \begin{cases} 0, & x\langle l \text{ and } x\rangle u \\ (x-l)/(m-l) & l \le x \le m \\ (x-u)/(m-u) & m \le x \le u \end{cases}. \quad (1)$$

Some algebraic operations of the triangular fuzzy numbers ($\widetilde{M_1} = (l_1, m_1, u_1)$ *and* $\widetilde{M_2} = (l_2, m_2, u_2)$) can be expressed as follows [19]-[21]:

$$\widetilde{M}_1 \oplus \widetilde{M}_2 = (l_1 + l_2, m_1 + m_2, u_1 + u_2). \quad (2)$$

$$\widetilde{M}_1 \ominus \widetilde{M}_2 = (l_1 - u_2, m_1 - m_2, u_1 - l_2). \quad (3)$$

$$\widetilde{M}_1 \otimes \widetilde{M}_2 = (l_1 l_2, m_1 m_2, u_1 u_2). \quad (4)$$

$$\lambda \otimes \widetilde{M}_1 = (\lambda l_1, \lambda m_1, \lambda u_1)\ (\lambda > 0, \lambda \in R). \quad (5)$$

$$\widetilde{M}_1^{\lambda} = \left(l_1^{\lambda}, m_1^{\lambda}, u_1^{\lambda}\right)\ (\lambda > 0, \lambda \in R). \quad (6)$$

$$\widetilde{M}_1^{-1} = \left(\frac{1}{u_1}, \frac{1}{m_1}, \frac{1}{l_1}\right). \quad (7)$$

$$\widetilde{M}_1 \phi \widetilde{M}_2 = \left(\frac{l_1}{u_2}, \frac{m_1}{m_2}, \frac{u_1}{l_2}\right). \quad (8)$$

$$d(\widetilde{M}_1, \widetilde{M}_2) = \sqrt{\frac{1}{3}[(l_1 - l_2)^2 + (m_1 - m_2)^2 + (u_1 - u_2)^2]}. \quad (9)$$

2.4| Fuzzy SWARA

SWARA is a method where experts used their own knowledge. In addition, it is not considered to be complicated and time-consuming [22]. The main feature of the SWARA method is the possibility to estimate opinions of experts or stakeholder groups regarding the significance ratio of the attribute in the process of their weight determination [23]. The experts determine the most considerable attribute by the highest rank, the least considerable attribute by the lowest rank, and then estimate the overall ranks from the average value of ranks.

Crisp SWARA cannot effectively deal with problems with such imprecise information, hence, in this study fuzzy SWARA method has been applied to handle this issue. The process of evaluating the importance weights of attribute using the fuzzy SWARA method described in this section.

Step 1. Each of the Experts *(DM=1,2,...,m)* sort the evaluation attribute *(j=1,2,...,n)* in descending order of importance.

Step 2. According to *Table 2*, the relative importance of the attribute j in relation to the previous *(j−1)* attribute should be determined by each of the experts.

Table 2. Linguistic comparison scale and fuzzy values [24].

Linguistic Scale		Response Scale
Equally important		(1, 1, 1)
Moderately important	Less	(2/3, 1, 3/2)
Less important		(2/5, 1/2, 2/3)
Very less important		(2/7, 1/3, 2/5)
Much less important		(2/9, 1/4, 2/7)

Step 3. Obtain the coefficient $\widetilde{K}_j$:

$$\widetilde{K}_j = \begin{cases} \tilde{1}, j = 1 \\ \tilde{S}_j + \tilde{1}, j > 1 \end{cases}. \quad (10)$$

Step 4. Calculate the fuzzy weight $\tilde{q}_j$:

$$\tilde{q}_j = \begin{cases} \tilde{1}, j = 1 \\ \frac{\tilde{q}_{j-1}}{\widetilde{K}_j}, j > 1 \end{cases}. \quad (11)$$

Step 5. Calculate the relative weights of the evaluation attribute:

$$\widetilde{W}_j = \frac{\tilde{q}_j}{\sum \tilde{q}_j}. \quad (12)$$

Step 6. Calculate the defuzzied weights of the attribute:

$$W = \frac{l + 2m + u}{4}. \quad (13)$$

Step 7. Calculate the normalized weights of the attribute:

$$w_j' = \frac{w_j}{\sum w_j}. \quad (14)$$

Step 8. Calculate the average normalized weights of the attribute:

$$w_j'' = \frac{1}{m} * \sum_{D=1}^{m} w_j'. \quad (15)$$

3| Research Methodology

This study also in terms of philosophical basis of research has interpretive paradigm. This study in terms of orientation, approach, background, goal and type of research is a practical, posteriori, combinatorial, descriptive and library and field research, respectively. In the first section of the study, qualitative method and in the second section semi-quantitative method has been used. The most important reasons for using qualitative method in the first section of this study include:

- *Lack of paradigmatic and systematic view in studies conducted in this field.*
- *Multilateral approach towards executive barriers in creating changes in administrative system and try to identify them in a real manner.*

Therefore, in this study, firstly, paradigmatic model to identify executive barriers in creating changes in administrative system of country's airports company using grounded theory approach and based on data collected with deep interviews, observation and reviewing documents, is provided. In grounded theory approach, data analysis is performed in two main levels: text level and conceptual level. Text level includes segmentation and organization of data files, data encryption and writing notes, while conceptual level emphasizes on making model, including sorting codes, and shaping networks. In the next step, in order to complete the model and assess the identified barriers, fuzzy SWARA method was used which has quantitative approach.

In this study, in order to choose sample size, the snowball sampling has been used. In this method, the process has been started of people who are experts in the field and have necessary criteria and in addition to the research questions, they were asked to introduce other experts in the field. Therefore, except for the first few people who were elected directly by the investigator based on specified criteria, other experts in addition to expertise criteria were chosen by other experts. Finally, 8 expert had choice that details of experts has been provided in the *Table 3*.

Table 3. Expert's panel.

N	Job position	Education	Work Experiences
1	Adviser and expert of aviation industry	Master degree	Dean of the faculty of country's aviation industry, deputy of country's aviation industry, board member and deputy of management and resources of country's airports companies, director of Iran's aviation industries, and deputy of aviation industry research institute.
2	Deputy of management development and resources	Master degree	Deputy of management development and resources of country's airports companies, deputy of company, general manager of procurement, financial controller and director general of finance and income.
3	Chief of expert studies department of managing director's office	PhD	Chief of expert studies department of managing director's office, member of committee of administrative system reforms of country's airports company.
4	Veep (director general's assistant)	Master degree	Administrative and financial assistant of Islamic republic of Iran international exhibitions company, tax administration and income assistant of airports company and member of administrative health committee.
5	Veep (director general's assistant)	Master degree	Assistance of management development and resources of Mehrabad international airport, assistant of general department of finance and revenue.
6	Veep (director general's assistant)	Master degree	Assistant of general department of finance and revenue, member of policy development; administrative and budgetary development committee, inspector of airports company and Iran's air navigation, and deputy of management and resources development of technical and soil mechanics laboratory Co.
7	Assistant of general department of education and human resource development	Master degree	Assistant of general department of education and human resource development, legal general director' deputy.
8	Supervisor of reviewing operational manpower	Master degree	Chief of attracting and recruiting department, member of human resources committee.

In this study, the researcher guided all interviews. The adoption of this procedure caused the researchers can use data from earlier interviews in subsequent interviews. Most of interviews were conducted in the interviewees' offices. Most of interview time was allocated to identify details of each executive barriers and related examples. Researcher in each organizational unit conducted interview, observed behavior and events, and in some cases studied some of documentations. In this study, data collection continued until theoretical saturation of categories and in other words, as far as access to new data was not possible. Form literature review, it can be realized that the subject of changing in administrative system is very diverse and there are great differences in the studied field, discussed issues, used tools, adopted policies

and strategies among different researchers. The flowchart of the proposed MCDM model is shown in *Fig. 1*.

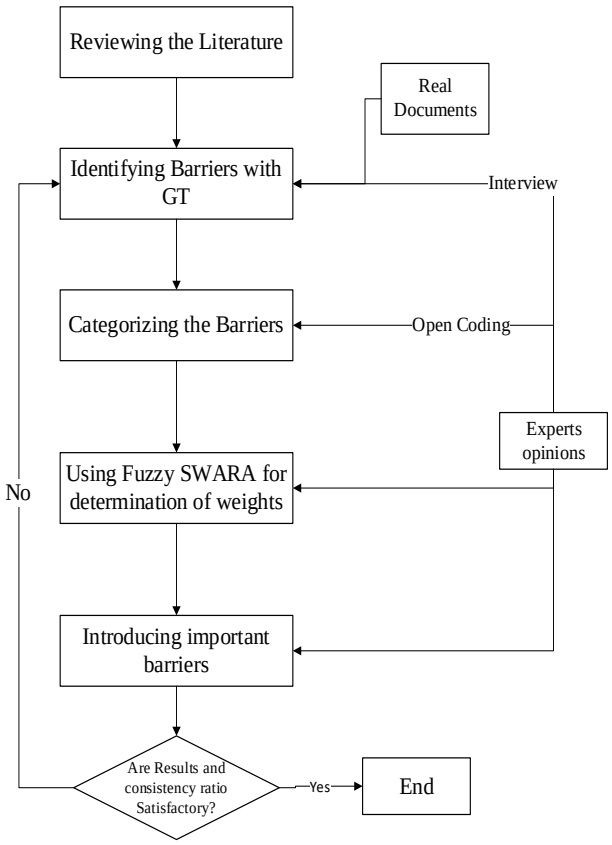

Fig. 1. Flowchart of the proposed MCDM model.

4| Data Analysis

4.1| Open Coding

Open coding is a part of the analysis performed by exact data analysis, naming and categorizing data. In order to classify concepts in categories accurately, each concept must be labeled after separation and raw data must be conceptualized by careful examination of interviews text and context notes. Data collected of Interviewees are encoded to identify their similarities and differences easier. Respondents in response to questions related to each dimension of the model described executive barriers to change and transform in the Mehrabad airport. The initial codes were extracted by analyzing their statements and views. In the next step, common codes and emphasized by all interviewees as well as important codes in researcher's view were identified as the final codes. Interviewees' descriptions in response to questions about the problem finding and causal conditions of executive barriers to create change and transformation in Mehrabad airport led to the identification of codes has been in *Table 4*.

Table 4. Extracted codes related to barriers.

N	Initial Extracted Code	N	Initial Extracted Code
1	Lack of attention to research and development department as an independent unit.	20	Lack of participation by managers of different levels.
2	Lack of attention to successful patterns and benchmarks around the world.	21	Lack of knowledge management system.
3	Lack of strategic planning.	22	Lack of attention to enhance employees' knowledge and skill.
4	Lack of Action Plan (executive actions) and legal and executive projects.	23	Assigning task of changing and transforming only in personnel and administrative affairs unit.
5	Negative attitudes of managers to develop and implement strategic planning.	24	Indifference of other units to administrative change process.
6	Attitudes of managers and officials.	25	Superior rules.
7	Lack of manager's system attitude.	26	Managers' fear of losing position.
8	Macro policies governing the country.	27	Organizational Structure.
9	Political relations governing the organizations' communications.	28	Organization's Funds.
10	The lack of an integrated transformation system.	29	International and global standards and rules.
11	Economic conditions governing the society.	30	Mandatory costs.
12	International Relations and relationship with international organizations.	31	Poor coordination of government's economic and cultural policies.
13	Budget allocated to the change and transformation.	32	Lack of knowledge regarding the identification of weaknesses, power, opportunities and threats.
14	Lack of skill of organizational individual in changing and transforming.	33	Organization employees' low motivation.
15	Fear of losing company reputation.	34	Uncertainty of task aspects.
16	Low level of public participation.	35	Company's activities are professional.
17	Lack of proper operational and non-operational infrastructures.	36	Lack of full access to income sources.
18	Inadequate study of company's comprehensive plan.	37	Lack of coordination in company's macro decision makings.
19	Lack of understanding of the results of the project.		

Investigation of extracted codes of interviewees' responses about the executive barriers to create change and transformation in Mehrabad airports has led to identification of the final. After applying experts' opinions and eliminating repetitious codes the final codes were obtained which showed in *Table 5*.

Table 5. Final codes related to barriers.

N	Final Code	N	Final Code
1	Lack of attention to research and development department as an independent unit.	15	Macro policies governing the country.
2	Lack of attention to successful patterns and benchmarks around the world.	16	Political relations governing the organizations' communications.
3	Lack of strategic planning.	17	The lack of an integrated transformation system.
4	Lack of Action Plan (executive actions) and legal and executive projects.	18	Economic conditions governing the society.
5	Negative attitudes of managers to develop and implement strategic planning.	19	International Relations and relationship with international organizations.
6	Lack of manager's system attitude.	20	Budget allocated to the change and transformation.
7	Superior rules.	21	Lack of skill of organizational individual in changing and transforming.
8	Fear of losing company reputation.	22	Fear of losing company reputation.
9	Organization employees' low motivation.	23	Lack of proper operational and non-operational infrastructures.
10	Inadequate study of company's comprehensive plan.	24	Lack of understanding of the results of the project.
11	Lack of participation by managers of different levels.	25	Managers' fear of losing position.
12	Lack of knowledge management system.	26	International and global standards and rules.
13	Lack of attention to enhance employees' knowledge and skill.	27	Organization employees' low motivation.
14	Assigning task of changing and transforming only in personnel and administrative affairs unit.	28	Mandatory costs.

4.2| Selective Coding

While open coding separates data into different categories, selected coding connects categories and their sub-categories given their characteristics and aspects. To discover how categories are connected to each other, the researcher uses paradigm. Paradigm is an analytic tool that Strauss and Corbin proposed for studying the data. The main components of the paradigm are: conditions, actions/ reactions and consequences. Strauss and Corbin proposed the paradigmatic model because in context theory sub-categories are related to categories in the form of a series of connections indicating casual conditions, phenomenon, context, intervention conditions, action/reaction strategies and results. During selective coding process, the researcher uses analytical tools such as asking question, and theoretical and permanent comparison of categories, sub-categories and their characteristics which have been appeared in open coding to develop relations between categories and sub-categories and form categories proportional to paradigmatic model. Simultaneous with doing open and selective coding a model was made indicating the relationship between the categories and sub-categories. When these relationships were developed, the selective coding procedure is used to facilitate integration of categories and sub-categories which have been identified in open and selective coding in the form of a new theory.

In selective coding the researcher by asking questions about the category which generally characterize a relationship refers to data and examines incidents confirming or rejecting questions. In selective coding process, the researcher is continuously moving between inductive and deductive thinking. It means that when he is working with data suggests their possible relations or properties deductively, and then tries to examine what he has expressed deductively against data. In Table 6, the identified concepts and categories associated with executive barriers to create change in Mehrabad airport has been presented.

As seen in the above table, after conducting interviews with experts and open coding, the axial coding and selective coding were discussed. In axial coding 15 concepts were identified and in the next step according to the selective coding, the identified factors were classified in 7 main barrier groups. In the following, in order to determine the importance and priority level of each of the six main barrier groups, the fuzzy SWARA method was used.

4.3| Prioritizing the Barriers by Using Fuzzy SWARA

At this step, fuzzy which was explained in *Section 2.4* utilized to obtain importance weights of identified barriers. The barrier set is determined on the basis of the GT results as shown in the *Table 6*.

The results of fuzzy SWARA are presented in this section. Because of limitation of space, the method results presented for the first Decision Maker (DM1) and main barriers dimension of this research and showed in *Table 7* for instance. A similar procedure was followed for the other experts and sub-barriers.

Table 6. Identified concepts and categories associated with executive barriers.

Barriers	Sub-Barriers	Final Codes
Management barriers- B1	Managers' poor planning- B11	Lack of coordination in company's macro decision makings.
		Lack of strategic planning.
	Managers' traditional attitude- B12	Negative attitudes of managers to develop and implement strategic planning.
		Attitudes of managers and officials.
		Lack of manager's system attitude.
	Fear of change- B13	Managers' fear of losing position.
		Lack of participation by managers of different levels.
Strategic barriers- B2	Lack of attention to the future- B21	Lack of attention to research and development department as an independent unit.
		Lack of attention to successful patterns and benchmarks around the world.
		Lack of strategic planning.
	Poor knowledge for changing- B22	Lack of knowledge management system.
		Lack of attention to enhance employees' knowledge and skill.
		Lack of knowledge regarding the identification of weaknesses, power, opportunities and threats.
Legal barriers- B3	Intra-organizational rules-B31	Lack of action plan (executive actions) and legal and executive projects.
		Macro policies governing the country.
		Superior rules.
	extra-organizational rules- B32	International relations and relationship with international organizations.
		Political relations governing the organizations' communications.
		International and global standards and rules.
Economic and income barriers- B4	Economic policies- B41	Poor coordination of government's economic and cultural policies.
		Economic conditions governing the society.
	Company's financial constraints- B42	Mandatory costs.
		Budget allocated to the change and transformation.
		Organization's funds.
		Lack of full access to income sources.
Participatory barriers- B5	Lack of inter-sectorial collaboration- B51	Indifference of other units to administrative change process.
		Low level of public participation.
	Making processes professional- B52	Assigning task of changing and transforming only in personnel and administrative affairs unit.
		Company's activities are professional.
Structural barriers- B6	Lack of transparency- B61	Uncertainty of task aspects.
		The lack of an integrated transformation system.
	Poor infrastructure- B62	Lack of proper operational and non-operational infrastructures.
		Organizational structure.
Cognitive barriers- B7	Insufficient knowledge of the change process- B71	Lack of understanding of the results of the project.
		Fear of losing company reputation.
	Employees' poor attitude- B72	Lack of skill of organizational individual in changing and transforming.
		Organization employees' low motivation.

Table 7. Fuzzy SWARA results for DM1 and main barriers dimension.

Barrier	$\tilde{S}_j$	$\widetilde{K}_j$	$\tilde{q}_j$	$\widetilde{w}_j$	w'_j
B6	–	(1, 1, 1)	(1, 1, 1)	(0.3969, 0.4848, 0.5828)	0.46979
B7	(0.6667, 1, 1.5)	(1.6667,2, 2.5)	(0.4, 0.5, 0.6)	(0.1588, 0.2424, 0.3497)	0.23937
B3	(0.6667, 1, 1.5)	(1.6667,2, 2.5)	(0.16, 0.25, 0.36)	(0.0635, 0.1212, 0.2098)	0.12429
B2	(0.4, 0.5, 0.6667)	(1.4, 1.5, 1.6667)	(0.096, 0.1667, 0.2571)	(0.0381, 0.0808, 0.1499)	0.08424
B5	(0.6667, 1, 1.5)	(1.6667,2, 2.5)	(0.0384, 0.08333, 0.1543)	(0.0152, 0.0404, 0.0899)	0.04481
B1	(0.6667, 1, 1.5)	(1.6667,2, 2.5)	(0.0154, 0.0417, 0.0926)	(0.0061, 0.0202, 0.0539)	0.02420
B4	(0.6667, 1, 1.5)	(1.6667,2, 2.5)	(0.0061, 0.0208, 0.0555)	(0.0024, 0.0101, 0.0324)	0.01325

At the final step, the average weights of barriers are calculated and showed in *Table 8*.

Table 8. Transformation barriers weights.

Barriers	Weight	Sub-Barriers	Local Weight	Global Weight	Rank
B1	0.030219283	B11	0.158874095	0.004801061	15
		B12	0.558670388	0.016882619	11
		B13	0.282455518	0.008535603	13
B2	0.089694687	B21	0.35444225	0.031791587	8
		B22	0.64555775	0.0579031	6
B3	0.132160409	B31	0.36443833	0.048164319	7
		B32	0.63556167	0.08399609	5
B4	0.01710169	B41	0.373803176	0.006392666	14
		B42	0.626196824	0.010709024	12
B5	0.050169669	B51	0.60455053	0.0303301	9
		B52	0.39544947	0.019839569	10
B6	0.445636176	B61	0.610242382	0.271946082	1
		B62	0.389757618	0.173690094	2
B7	0.235018085	B71	0.615934235	0.144755684	3
		B72	0.384065765	0.090262401	4

The prioritization of barriers (*Table 8*) explain that the 'structural barriers (B6)', 'cognitive barriers (B7)' and 'legal barriers (B3)' are the most important barriers and, 'economic and income barriers (B4)', 'management barriers (B1)' and 'participatory barriers (B5)' are the least important barriers respectively.

5| Conclusion and Recommendations

In general, any governmental administrative system depicts the government attitude toward administration and management of the country. The administrative system plays an important role in economic, political, socio-cultural structure and its effect in realization of the society macro-systems is of importance; so that the mentioned goals cannot be achieved without an efficient and effective administrative system. In recent years, improvement of administrative system is considered as a prerequisite of growth and its fundamental goal. The quality and efficacy of the administrative system is a determinant factor in implementation of developmental plans and providing welfare. Paying attention to the results, fulfillment of goals, continuous improvement of the quality of the public services and citizens' satisfaction, conducting organizational affairs in meaningful way and making significant changes in management knowledge in recent years, considering administrative system functions and evaluation of this system are essential. Nowadays, the role of management systems as an evaluation system and efficient supervision is obvious in improvement and perfection of organizations. While applying appropriate solutions, it is expected that the administrative system revolution will convert the government vision to service providing attitude which considers customer-oriented principle and customer satisfaction as one of the main indicators of efficacy and development of the system measurement. The components such as speed, accuracy and precision in providing the client services, the quality of performance, transparency and appropriate information dissemination are effective factors in customer satisfaction on services offered by the governmental system which provides the context for public trust as the biggest capital and support for the administrative system. It worthwhile to note that merely application of the revolutionary patterns proposed by different scholars will not be remedial in other organizations and communities that codify the rules and norms based on specific conditions. However, the Mehrabad airport needs for identification the barriers of changes and it should make effort to remove them. The results of fuzzy SWARA showed that the important barrier of changes in the administrative system in the Mehrabad airport is structural barriers. It is recommended this firm to try to remove these barriers. This firm also can identify jobs dimensions by clarification and establishing an integrated revolution system. Also, it should strengthen its infrastructural weak points in order to eliminate structural barriers before revolution.

The second case is cognitive barriers. The Mehrabad airports is recommended to recognize the change process in order to implement it without fear of losing its credibility. This firm also can take an action to change its staff vision on revolution. Legal barriers are considered as the third barrier of change in the administrative system. This firm should pay attention to codification of inter-organization rules; because it does not have authority to compile intra-organization regulations. Revolution is an essential, time-consuming, gradual and difficult process in this firm administrative system. Certainly, realization or non-realization of changes in this sector lies in the implementation of strategies and programs. In contrary to some extent, the firms are unable to approve laws and implement the rules in different contexts. Codification and implementation procedures are interwoven and providing the condition for implementation of a policy is superior to any other plans. Observance of this principle leads to compatibility in the nature of the implemented program and strategy which at the end it will pave the road for realization of the target. As before said, the findings of current research depict inconsistency of the strategy of change with the revolution program nature in the administrative system in the Mehrabad airport, so that it has caused to violation from the goals. Thus, successful implementation coordinated with the revolution program nature will be possible merely when the dependency relations are minimized. In other words, this research emphasizes the decentralization process as the main element and fundamental solution for making changes. However, this firm should take an action to remove its strategic barriers. Following propositions are recommenced:

- *It is recommended to conduct the organizational, technical and political decentralization process in short-term, middle-term and long-term.*
- *It is recommended to pay attention to planning and then implementation and control: If we consider any organizational change as a process, we will have three phases of planning, implementation and control. The governmental organizations put more energy on planning and then pay attention to implementation. Control is also the lost chain of organizational change process. In Iran it is emphasized documentation and strategy.*

The cultural barriers encourages changes and rewards ideas and innovation. We can see this culture rarely in Iranian governmental organizations and what is tangible is habit and uniformity. The findings of this research reveal that slogans and politicized behaviors in the governmental organizations is the biggest barrier before organizational revolution. In such atmosphere seeking organizational revolution programs seems unlikely since some of the management of these organizations prioritize establishing a close relationship and strengthening of their position not development of organization.

The findings of this research propose various research opportunities for researchers. Some of these propositions include:

- *Blocking sub-categories: In this research, blocking was done according to Strauss and Corbin categories paradigmatic model. The current research sub-categories paradigmatic model provides context for innovation and gaining knowledge.*
- *Examining variables and their relationships using survey research and multi-criteria decision making techniques is useful.*

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