IJEP   **International Journal of New Political Economy**

Presenting the Model of Tax System Reform Plan (Case Study: Tax Affairs Organization of Golestan, Mazandaran and Gilan Provinces)

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ARTICLE INFO

ABSTRACT

The purpose of this study is to present a model of the transformation plan of the tax system in the tax affairs organizations of Golestan, Mazandaran, and Gilan provinces. The research method is developmental-applicative and in terms of nature, it is exploratory with a mixed approach. In the qualitative part, in order to identify the data using the content analysis method, reviewing the related texts, as well as exploratory interviews with 30 experts, using a non-random method with the snowball technique until reaching theoretical saturation. In the quantitative part, the effective factors on the transformation plan of the tax system from the opinions of the general managers and deputy governors of the provincial centers and the heads of departments in the number of 130 people, and the sample size was estimated using the Kargesi Morgan table in the number of 100 people by stratified random sampling method. In order to screen and select the effective factors on the tax system transformation plan, the Delphi method was used and among the 25 identified factors, 22 factors were selected using exploratory factor analysis, the factors were determined in the form of 5 dimensions, including human resources, project management, and infrastructure. Also, structural-interpretive modeling has been used to stratify the factors affecting the transformation of the tax system, which are respectively in 4 levels, including the stakeholders in the first level, the integrated tax system in the second level, the management of the plan in the third level, resources. Human and infrastructure were placed at the fourth level. The results showed that as we approach the fourth level to the first level, the intensity of influence decreases, and the intensity of influence increases. According to the analysis chart, the factors of human resources and infrastructures are located in the independent area, which has a high influence, as a result, they will influence other factors.

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1. Introduction

$\mathcal{T}$he changes and transformations created in the values and cultures, expectations and social demands of the citizens have also affected the executive bodies (Jahn & Suda, 2022). The change in people's tastes, desires, and expectations has caused transformation to become an endogenous issue to an exogenous issue (Ardehi et al., 2023). Today, tax is considered one of the most common ways of earning government income, and it is also of particular importance as the most important tool for implementing the government's financial systems in formulating economic and social policies. Appropriate and redistribution of incomes, curbing inflation, acceleration of economic growth and directing investments, etc. will only be possible if there is an efficient tax system (Pakdaman et al., 2022). The transformation of the country's tax system as one of the seven axes of the economic transformation plan with the aim of improving the position of taxes in financing the government and reducing the dependence of the government budget on the revenues from oil exports through increasing public participation and without imposing a double tax burden on the existing bases. Providing a suitable platform for accessing and aggregating information on the country's economic exchanges, income statistics, especially hidden incomes, and as a result, creating economic transparency and, accordingly, preventing tax evasion, has been formulated (Hassanpour Amiri, et al., 2022). Tax is the healthiest financial source for infrastructure investments and a stimulus for economic growth and development. The amount of internal revenues of governments is largely related to the power and efficiency of their tax system. Since the value and importance of taxes in tax systems changes over time, the tax system is always reformed and changed. It is essential (Jalali et al., 2023).

The main problem is that the plan of tax developments in the form of five axes (integrated tax system: preparation and implementation of an integrated tax software system; infrastructure: upgrading the infrastructure of the tax affairs organization from a technological and process point of view; human

resources: matters related to the management of employees and human resources of the organization; stakeholders: the organization's relationship with taxpayers and other stakeholders of the organization; and project management: managing programs and monitoring the implementation of the comprehensive tax plan) as a comprehensive plan to solve the problems of key systems and realize the country's 20-year vision document and programs A development, especially the fifth development plan, was proposed, because achieving the economic and transcendental goals of the aforementioned documents, such as placing Iran in the first economic, scientific and technological position in the Southwest Asia region, rapid and continuous economic growth, appropriate distribution of income and relative improvement of the income level per capita, it is not possible to achieve full employment etc. with the current structure of the country's economy, because the examination of various economic indicators of the country indicates the existence of a significant gap between the actual and potential capacity of the country's economy (Shahniaie, 2022).

The transformation of the tax system and the movement towards the optimal tax system has become an inevitable necessity for the country's tax affairs organization, and it has placed the transformation of the organization in the two dimensions of modernization and amendment of laws and regulations in its most important activities. Undoubtedly, an important part of the process of organizational transformation will be aimed at modernization, because significant changes in technology in the external environment of organizations, new business methods, massive amounts of data and information, etc. are among the driving factors towards modernization and transformation of the country's tax system. The tax affairs organization is one of the most important government organizations in the country's economy (Nobari, 2022). On the other hand, the tax affairs organization, in line with the goals of economic prosperity of the country and the implementation of the government's policies in the field of organizing and helping to set up, complete and strengthen trade unions,

promises that by examining this phenomenon, the organization can achieve it helped achieve its goals. Undoubtedly, the tax affairs organization, like other organizations of the present age, is facing extensive national, regional and international developments and threats, and ensuring and continuing the life and survival of organizations requires finding new solutions and methods to deal with problems, which are to innovate, create services. New processes and methods depend a lot.

Therefore, according to the presented materials, the main question of the current research is, what is the model of the transformation plan of the tax system in government organizations?

2. Theoretical framework, Comprehensive tax system

In the economic literature, three general objectives for imposing taxes have been mentioned,

a) Budgetary objectives of imposing taxes, which oversee the financing of the government budget through taxes.

b) Economic goals that focus on stabilizing economic fluctuations in recession and inflationary conditions and allocating resources between different economic sectors through tax policies.

c) Governments sometimes use tax policies to support investment, production and employment in specific and desired sectors, such as reducing tax rates, establishing exemptions and granting other types of incentives in order to support production, allocate resources or stabilize economic fluctuations (Vernon, 2022). In Iran, one of the reasons for the weak role of taxes in economic policies is the limited tax bases and, as a result, a significant part of the GDP is not subject to taxation. Therefore, the effectiveness of economic policies through taxes depends on the extent of the tax base, the speed of tax policy implementation, which is often done in many countries through annual budgets (Mirshojaee et al., 2022) And finally, the social goals that oversee the redistribution of society's income and reducing the class gap through tax means which the

government uses tax tools to reduce the class gap and increase social justice. Examining the tax laws and regulations of our country shows that it is necessary to properly observe the aspects of tax justice. (Mirzaie & Farsadamanollahi, 2022). For the realization of economic goals, each of the direct taxes can play a role. When the nascent industries of the country can progress and take the place of foreign industries that the government supports in the early stages of their establishment and protects them from the competition of foreign industries (Khakpour et al., 2022), then the government can implement this intention through any type of tax. First, through indirect taxes to All foreign goods that are similar to those produced in the country will be subject to heavy duties and taxes, as a result, their prices will become expensive and due to the lack of acceptance by the people, they will no longer be imported into the country, and on the other hand, the domestic industries will not gain enough strength and their products will be able to compete with foreign goods does not have to exempt them from paying direct taxes, and in this way provide them with the necessary protection (Babaki & Efati, 2022). It is obvious that achieving a favorable tax system that can guarantee economic growth and stimulate the economy in addition to financing the government budget and ensuring equality and justice depends on the functioning of the constituent elements of the tax system, i.e. national production, tax laws and regulations, and the tax collection organization. By strengthening the national production capacity, reforming legal mechanisms and finally strengthening the tax collection system, we can hope to improve the performance of the country's tax system (Azimi, 2022).

According to its functions, the tax system plays a very important role in the economy of countries. In the texts of public finance, three functions of income, social and economic management are considered with different degrees of importance for the tax system. Another importance of the tax system is in the extensive interaction of the executive organization of this system with the members of the society, whose improper functioning, while

creating social and political dissatisfactions, causes over time the behaviors that are in opposition to this system to become the norm, and this means an increase in disobedience and There will be an increase in tax collection costs, so the tax system is important from this point of view as well (Bachas et al., 2022).

Despite the importance of tax systems, the pathology of the country's tax system in the framework of its three pillars (including tax laws and regulations, the executive organization or the provincial tax system and taxpayers) shows the weaknesses of each of the pillars, and these weaknesses are the causes of the system's inefficiency (Nejadaghaeianvash et al., 2022). In relation to tax laws and regulations, it is possible to enumerate points of inadequacies such as complexity and lack of comprehensiveness, the existence of non-targeted, wide and at the same time ineffective exemptions, weakness in executive guarantees and limitations in tax bases (Hashemi Dizaj, 2022). Regarding the executive organization or the state tax system as the enforcer of tax laws and regulations, problems such as the weakness of information technology infrastructures and the lack of widespread use of information technology in carrying out affairs, the absence and benefit of a comprehensive database of taxpayers, The lack of information and statistical communication between executive organizations, the structure of extensive executive organizations and inefficient tax processes. In relation to taxpayers, who are actually the audience of the provincial tax system, in addition to the category of identification, which is one of the tasks of the provincial tax system, the main issue is how and the degree of compliance of the taxpayers. Surveys show the unfavorable state of tax compliance, especially the voluntary compliance of the people of the country towards the tax system, the root of which, in addition to the deficiencies in the other two pillars, lies largely in the culture of the society (Farahati, 2022).

Nnamani et al., (2023), conclued that recommends the decentralisation of the land use charge administration system; adoption of capital basis for

property assessment; massive public sensitisation; demonstration of political will by the property-owning elites; adoption of the collection-led approach in the implementation of the property tax reform policy; deploying ICT such as geo-referencing software in property information gathering and computer-aided mass appraisal method (CAMA) in the valuation of properties. This research highlights how not to design and implement property tax reform in a developing economic context for enhanced property tax revenue performance. Ghasemi et al., (2023), showed that the decision tree model based on the available data is considered a suitable model for prediction. The coverage criterion is 68%, the Kappa criterion is 0.612, which shows the good performance of the modeler. Also, using the Cross Validation technique, the validity of the prediction model was tested in order to more reliably estimate the percentage of modeling performance. The accuracy criterion equal to 67.79% shows the appropriate reliability for the prediction model. The results of this research can be used in formulating operational strategies based on data mining to predict the tax evasion of guilds in the provinces. Uemura (2022), showed that Japan lowered its statutory tax rate while it expanded the tax base. This study analyzes the differing effects of the tax rate reduction and depreciation method reform by conducting simulations to represent the effects of each reform on the EATR and EMTR. Japan's tax reform in the 2010 s reduced both EATR and EMTR by lowering tax rates. The reform of depreciation methods had little effect on EATR and raised EMTR, but had a limited effect on companies with eligible depreciable assets. The overall effect of the corporate income tax reform is that the effect of the tax rate reduction exceeded that of the depreciation method reforms, and thus the EMTR also declined. Jakobsen and Sogaard (2022), argued that the standard estimation strategy relies on an assumption of constant trend differentials. In the context of income taxation, this implies that differences in income trends across the income distribution should remain constant in the absence of tax reforms. Similar to pre-trend validation of differences-in-differences studies, we can validate this assumption by

comparing the evolution of income in untreated parts of the income distribution. The authors illustrate our new approach by studying several tax reforms in Denmark. Liu et al., (2022), argued that a significant increase in firms' environmental investments after the implementation of the tax. Further analyses examine variations in the effect according to ownership type, regional economic development level, and media attention. The positive effect is more significant for state-owned companies and companies subject to high media attention, but there is no obvious difference between companies in regions with different levels of economic development. Additional analysis reveals that government subsidies negatively affect firms' environmental investments, but the environmental tax reduces such subsidies and thus their inhibitory effect, increasing firms' environmental investments. Additionally, the results show that the environmental tax promotes firms' performance by increasing their environmental investments. This paper provides theoretical support and empirical evidence for the implementation and improvement of the environmental tax policy. Al-Rahamneh & Bidin (2022), showed that 81 percent of Iranian commercial banks have a mixed portfolio of interbank loans and securities and can spread the crisis throughout the financial system in case of a shock. This process happens through the fire sale mechanism and investment fund unit redemption and can make stocks undervalued in the capital market. Although higher imposed capital adequacy and liquid assets rate can reduce the shock effect on price in the capital market, these high rates make banks portfolios mixed and increases systemic risk. Optimal capital adequacy rate is estimated 19 percent. Dobrovic et al., (2022), conclued that from the existing functional organizational structures and tax administration systems not only in Slovakia, but also in Hungary, Poland, Czech Republic and Slovenia, while the basic prerequisite for the study was to increase the efficiency of the tax system as a whole. Based on the trend analysis, we assume that the tax and customs reform will make a significant contribution to increasing the system efficiency and, ultimately, to a more positive

perception of taxes. Bagheri et al., (2022), argued that in the short term, in the economic growth model, the coefficient of tax evasion variables, employment rate, foreign investment and oil income is negative. However, in the long run, the impact of tax evasion, employment rate, oil revenue and average tax burden on economic growth is positive. Despite the fact that the coefficient of foreign investment is not significant. Abdul Halim and Rahman (2022), dedicated that a higher rate of corporate tax plays vital role in achieving the sustainable development goals in the emerging economies. By including personal income tax, sales tax, and theoretical arguments, the study contributes to the debate on the corporate tax rate and the achievement of SDG in the emerging countries. The study applies both individual effects and combined effects of corporate tax rate, personal income tax, sales tax, and effective tax rate with SDG. In both cases, the research finds significant and positive association of taxation with SDG. Thus, the study argues that achieveing the SDG of emerging economies depends on the countries' taxation rate and policy. This research employs the most updated data set that also contributes to the existing literature of emerging economies. Thus, the findings generated from this study can be a policy dialogue for the academics, policy-makers and government bodies of BRIC and CIVETS countries and other emerging economies as well. Bhalla et al., (2022), conclued that the technological advancement in the tax system and its knowledge led to proper tax administration and governance by firms which enhanced their productivity. The results may prove beneficial for policymakers, governments, and businesses because in-depth tax knowledge would lead to timely tax compliance and reduced tax evasion, avoidance, and scams.

The most important innovation of this article are:
❖ Examining the effective factors on the transformation plan of the tax system using the opinions of experts;
❖ Stratification of factors affecting the transformation plan of the tax system using structural-interpretive modeling;

❖ Determining the effective factors on the transformation plan of the tax system using the 5 identified factors;

❖ Presenting the tax system transformation plan model in the tax affairs organization of Golestan, Mazandaran and Gilan provinces.

3. Research Methodology

This research presents the model of tax system transformation plan in government organizations, therefore, the research is developmental-applied in terms of purpose and mixed in exploratory type in terms of nature. In the qualitative part, in order to identify the effective factors on the evolution of the tax system, by means of content analysis, a review of the theoretical literature related to the research topic.

Table 1. Identification the effective factors on the evolution of the tax system based on research literature

Row	Research/ Author(s)/ Year	Main concept
1	Nnamani et al., (2023)	Optimization of tax processes
2	Ghasemi et al., (2023)	Implementation of the comprehensive tax plan
3	Uemura (2022)	Employee compensation system
4	Bhalla et al., (2022)	Development of technology strategies
5	Al-Rahamneh & Bidin (2022)	Tax intelligence aristocracy
6	Abdul Halim & Rahman (2022)	Organization's relationship with taxpayers
7	Dobrovic et al., (2022)	Increasing the Tax system efficiency
8	Bagheri et al., (2022)	Management of Tax burden
9	Liu et al., (2022)	Protection Tax law
10	Jakobsen & Sogaard (2022)	Communication with taxpayers
11	Vernon (2022)	Integrated tax software
12	Jahn & Suda (2022)	Support and maintenance service plan
12		Mechanization of tax operations
13	Bhalla et al (2022)	Staff training
14	Bachas (2022)	Process optimization
15	Azimi (2022)	Establishing an integrated tax software system
16	Hassanpour Amiri et al., (2022)	Localization of integrated tax software

Row	Research/ Author(s)/ Year	Main concept
17	Pakdaman et al., (2022)	Process reengineering
18	Farahati (2022)	The role of stakeholders in the organization
19	Babaki & Efati (2022)	Management of comprehensive tax programs
20	Mirshojaee et al., (2022)	Improving the information tax system
21	Shahniaie (2022)	Exchange of information with stakeholders
22	Taghavifard et al., (2022)	Maintain and strengthen employee motivation

Source: Research Findings

As well as an interview with tax affairs experts of Golestan, Mazandaran and Gilan provinces who have Features such as high service history, high education degree, writings, articles and research activities related to the subject in the number of 30 people have been used until the theoretical adequacy is reached. It is worth mentioning that non-random method with snowball technique was used to select experts. In the quantitative part, in order to examine the factors affecting the evolution of the tax system from the opinions of the general managers, deputies, heads of the provincial capital and heads of departments of the northern provinces of the country, 130 people were sampled using the table. Morgan Kerjesi was estimated for 100 people by stratified random sampling method.

In this research, first, by using the data obtained from exploratory studies including literature review and semi-structured interviews with experts, the effective factors on the evolution of the tax system were identified. Then, according to the identification of factors affecting the evolution of the tax system through interviews and the possibility of bias in the opinions of experts, in order to ensure accuracy, accuracy, applicability, comprehensiveness and remove possible biases using the fuzzy Delphi method to achieve group agreement. It was used between experts. For this purpose, a questionnaire was designed and distributed among experts. The factors that were asked in the questionnaire of this stage were used verbally with a Likert scale from very little to very much was used to convert the verbal variables into fuzzy values from Table 2.

Table 2. Valuation of factors relative to each other

Verbal variable	Fuzzy number	L	M	U	Fuzzy determined number
Very Low	(0, 0, 0.25)	0	0	0.25	0.083
Low	(0, 025, 0.5)	0	0.25	0.5	0.21
Medium	(0.25, 0. 5, 0.75)	0.25	0.5	0.75	0.41
Much	(0.5, 0.75, 1)	0.5	0.75	1	0.71
Very much	(0.75, 1, 1)	0.75	1	1	0.92

Source: Research Findings

In the next step, by using exploratory factor analysis, which is a method that reduces a large number of interdependent variables into a smaller number of hidden or implicit factors, so that there is the least amount of missing information. Its main purpose is to summarize the data. This method examines the internal correlation of a large number of factors and finally categorizes and explains them in the form of effective factors on the evolution of the tax system. Therefore, a questionnaire with items from content analysis, interviews and the output approved by Delphi, explains and it was made available to the statistical community. These items have been evaluated after the fuzzy Delphi stage using exploratory factor analysis, and the effective factors on the tax system evolution were extracted using the varimax method and identified using open coding and axial coding of the individuals of the tax system evolution.

Structural-Interpretive Modeling method has been used to stratify and determine the priority, influence and influence of each of the factors affecting the evolution of the tax system and to draw the interactive network of the evolution of the tax system. The structural-interpretive modeling method proposed by Wardfield (1974). It is an interactive learning process in which a set of different elements are structured in the form of a comprehensive systematic model. In other words, by using this approach, it is possible to identify the relationships between the variables and present the structural-interpretive model of these factors, and finally, the variables based on the

power of influence and the degree of class dependence. The ISM approach enables individuals and groups to map the complex relationships between a large numbers of elements in a complex decision situation and serves as a tool to organize and direct the complexity of relationships between variables. In this method, by analyzing the effect of one element on other elements, the order and direction of the complex relationships between the elements of a system are examined and thus the complexity between the elements is overcome (Zabetian et al., 2023).

To implement the ISM technique, to obtain the relationships and priorities of the elements in a system, the following process must be followed:

Step 1: *Formation of structural self-interaction matrix*

This matrix is formed based on the discussion and calculation of experts' opinions (Mahmoodi meymand et al., 2023). The following symbols can be used to determine the type of relationship.

Table 3. Conceptual relationships in the auto-structural matrix

Symbol	Symbol concept
V	i leads to j
A	j leads to i
X	There is a two-way relationship between i and j
O	There is no valid relationship

Source: Research Findings

Step 2: *Formation of the primary achievement matrix*

The initial accessibility matrix is obtained by transforming the self-interactive-structural matrix into a two-valued matrix (zero and one). In order to replace the numbers zero and one instead of the four symbols mentioned in the second step, the rules stated in Table 4 are used to extract the primary achievement matrix.

Table 4. How to convert conceptual relationships into quantitative numbers

Conceptual symbol	Converting conceptual symbols into quantitative numbers
V	The house corresponding to this couple is placed in the access matrix with the number 1 and its related house with the number 0.
A	The house corresponding to this couple is placed in the access matrix with the number 0 and its related house with the number 1.
X	The house related to this couple is placed in the access matrix number 1 and its related house number 1.
O	The house corresponding to this couple is placed in the access matrix with the number 0, and its relative house is placed with the number 0.

Source: Research Findings

Step 3: *Formation of the final achievement matrix*

After the initial accessibility matrix is obtained, its internal consistency should be established. So that if (i, j) are related to each other and (j, k) are related to each other; Then (i, k) are related to each other (Taghavifard et al., 2022). By identifying the secondary relationships and modifying the received matrix, the final matrix is obtained. Also, in this matrix, the influence and degree of dependence of each variable are also shown.

Step 4: *Determination of relationships and leveling of effective factors*

In this step, the access matrix is categorized into different levels. Using the final access matrices, the output and input set for each agent is obtained. The output set of an agent includes the agent itself and the agents that affect them, which can be identified by the "1"s in the corresponding line. The input set of a factor includes the factor itself and the factors that are influenced by them, which can be identified by the "1"s in the corresponding column. After determining the input and output sets, their share is determined for each factor (Fathi et al., 2023).

Step 5: *Drawing the network of interactions*

In this step, according to the levels of variables and the final access matrix, the ISM model is drawn. This form is called structural model or diagram in structural-interpretive modeling.

Step 6: *Mix and match analysis*

In mik-mak analysis, the factors are divided into four categories according to the power of influence and degree of dependence. In order to calculate the penetration power of the indicators, it is enough to add the number of 1's in each row of the final access matrix. In order to calculate the degree of dependence, add the number of 1's in each column related to each factor together.

4. Findings

In the first step, considering that each of the previous researchers introduced different factors, with the method of content analysis, primary factors were identified by analyzing existing articles and books and interviewing experts. At this stage, the number of 25 factors from books and articles was identified. It has been extracted related to the topic of the transformation of the tax system. In the second step, the factors specified in the previous step were designed in the form of a Delphi questionnaire with a 5-point Likert scale and were provided to the experts. Then, the verbal variables were converted into fuzzy values according to Table No. 1. In the third step, to calculate the average of the opinions of n respondents, their fuzzy average has been calculated. For this purpose, it is necessary to calculate the triangular fuzzy number of each variable. In the following, the center of gravity method is used to calculate the crisp number and de-fuzzification. The crisp number shows the common understanding of the decision-making group for this factor. In the next step, a threshold value should be selected in order to screen inappropriate factors. Normally, the threshold value is determined by the researcher's mental inference, and there is no general way or rule to determine its value. The threshold value has an effect on the number of factors that are screened. In this section, the results of screening and determining the factors of the tax system transformation using the fuzzy Delphi method are given in the form of Table 5.

Table 5. Fuzzy average of experts' views for factors affecting the evolution of the tax system with fuzzy Delphi approach

Agents	Triangular fuzzy mean			De-fuzzified average	Agent status
	L	M	U		
Localization of integrated tax software	0.57	0.82	0.96	0.78	Approved
Establishing an integrated tax software system	0.60	0.85	0.96	0.80	Approved
Communication with taxpayers	0.48	0.73	0.88	0.70	Refused
Support and maintenance service plan	0.63	0.88	0.96	0.82	Approved
Improving the level of information elites of the tax system	0.56	0.81	0.96	0.78	Approved
Mechanization of tax operations	0.53	0.78	0.93	0.74	Approved
Optimization of tax processes	0.62	0.88	0.98	0.78	Approved
Development of technology strategies	0.57	0.82	0.95	0.78	Approved
Upgrading the telecommunications network	0.71	0.96	1.00	0.89	Approved
Process optimization	0.46	0.71	0.87	0.68	Refused
Establishing information systems in integrated tax software	0.68	0.93	0.98	0.87	Approved
Maintain and strengthen employee motivation	0.69	0.94	1.00	0.88	Approved
Human resource recruitment process management	0.68	0.93	1.00	0.87	Approved
Alignment of new employees with the organization	0.66	0.88	0.98	0.83	Approved
Staff training	0.63	0.91	0.99	0.85	Approved
Establishment of human resource management information system	0.70	0.95	1.00	0.88	Approved
Designing an employee compensation system	0.70	0.95	0.99	0.87	Approved
Exchange of information with stakeholders	0.68	0.93	0.99	0.88	Approved
The organization's relationship with taxpayers	0.72	0.97	0.99	0.89	Approved
Planning relations with the stakeholders of the organization	0.73	0.98	1.00	0.90	Approved

Agents	Triangular fuzzy mean			De-fuzzified average	Agent status
	L	M	U		
The importance of the role of stakeholders in the organization	0.71	0.96	1.00	0.89	Approved
Monitoring the implementation of the comprehensive tax plan	0.67	0.92	1.00	0.86	Approved
Tax intelligence aristocracy	0.47	0.72	0.88	0.68	Refused
Management of comprehensive tax programs	0.59	0.84	0.94	0.79	Approved
Process reengineering	0.66	0.91	1.00	0.86	Approved

Source: research findings

The absolute mean obtained shows the intensity of experts' agreement with each of the indicators of the evolution of the tax system. The indicators of communicating with taxpayers, tax information elites and optimization of processes were removed from the survey due to having a definite mean of less than 0.71. Then, the factors confirmed in the fuzzy Delphi method have been evaluated in order to check the standard of research structures using exploratory factor analysis. But in doing factor analysis, first of all, it should be ensured whether the available data can be used for analysis or not. Therefore, at first, we examine the suitability of the data for factor analysis. There are different methods for this task, among which we can mention the calculation of KMO value, which always fluctuates between 0 and 1. Given that the KMO number is greater than 0.7, the existing correlations among the data, it will be suitable for factorial analysis. On the other hand, Bartlett's test was used to ensure the appropriateness of the data that the correlation matrix, which is the basis of the analysis, is equal to zero intention in the society. Considering that the significance level of Bartlett's test is less than 5%, it can be said that the data is suitable for performing factor analysis and meets the required conditions. The resulting dimensions were extracted using the Variamax method and named using content analysis, open and axial coding, and 5 dimensions were extracted as model dimensions along

with sub-criteria. These 5 dimensions generally explain about 79.11 percent of the variance. And it covers that it actually indicates the appropriate validity of the questions. The criterion for selecting sub-criteria, as a factor, having an eigenvalue higher than one and also a factor load of 0.50 and above, provided that it appears in other factors less than this value, finally 22 sub-criteria were selected. Each of these factors and sub-criteria and the amount of factor loading are shown in Table 6.

Table 6. The rotated factor matrix of the evolution of the tax system

Objects	Factor				
	Human resources	Infrastructures	Integrated tax system	Beneficiaries	Project management
Maintain and strengthen employee motivation	0.647		0.494		
Human resource recruitment process management	0.607	0.497			
Alignment of new employees with the organization	0.849				
Staff training	0.771		0.397		
Establishment of human resource management information system	0.771				
Designing an employee compensation system	0.730	0.302	0.319	0.321	
Mechanization of tax operations		0.542	0.520		
Optimization of tax processes		0.872			
Development of technology strategies		0.723		0.365	
Upgrading the telecommunications network	0.335	0.870			
Establishing information systems in integrated tax software		0.742	0.388		
Localization of integrated tax software			0.836		
Establishing an integrated tax software system		0.359	0.807		
Support and maintenance service plan	0.498		0.548		
Improving the level of information elites of the tax system	0.446		0.690		

Objects	Factor				
	Human resources	Infrastructures	Integrated tax system	Beneficiaries	Project management
Exchange of information with stakeholders				0.697	
The organization's relationship with taxpayers			0.374	0.649	
Planning relations with the stakeholders of the organization			0.416	0.644	
The importance of the role of stakeholders in the organization				0.619	
Monitoring the implementation of the comprehensive tax plan					0.611
Management of comprehensive tax programs					0.711
Process reengineering	0.355		0.371		0.752

Source: research findings

After 8 rotations, it was determined that 5 factors were identified as the dimensions of the tax system evolution and were named as follows: the first dimension "human resources", the second dimension "infrastructure", the third dimension "integrated tax system" and the fourth dimension "beneficiaries". And the fifth dimension "project management". Now, the prioritization and degree of influence and dependence of each of the dimensions of the evolution of the tax system, as well as the factors affecting each of the dimensions of the evolution of the tax system, and the drawing of the interactive network of the dimensions of the evolution of the tax system using structural-interpretive modeling are presented.

1-4- Structural-interpretive modeling of tax system evolution

Step 1: In this step, the relationships between the factors affecting the evolution of the tax system obtained from the fuzzy Delphi method and exploratory factor analysis have been formed in pairs.

Table 7. Structural self-interaction matrix (SSIM)

	Human resources	Infrastructures	Integrated tax system	Beneficiaries	Project management
Human resources		X	V	V	V
Infrastructures	X		V	V	V
Integrated tax system	A	A		V	A
Beneficiaries	A	A	V		O
Project management	A	A	A	O	

Source: research findings

Step 2: *Formation of the primary achievement matrix:*

By converting the self-interaction matrix into a two-valued matrix of zero and one using table number 3, the primary achievement matrix has been obtained. The primary achievement matrix is presented in Table 8.

Table 8. Primary access matrix

	Human resources	Infrastructures	Integrated tax system	Beneficiaries	Project management
Human resources	1	1	1	1	1
Infrastructures	1	1	1	1	1
Integrated tax system	0	0	0	1	0
Beneficiaries	0	0	0	1	0
Project management	0	0	1	0	1

Source: research findings

Step 3: *Formation of the final achievement matrix*

At this stage, the final matrix is obtained by identifying the secondary relations and modifying the received matrix. In fact, by doing this, the internal consistency of the matrix is established. Also, in this matrix, the influence and degree of dependence of each factor are also shown.

Table 9. Final access matrix

	Human resources	Infrastructures	Integrated tax system	Beneficiaries	Project management	Penetration power
Human resources	1	1	1	1	1	5
Infrastructures	1	1	1	1	1	5
Integrated tax system	0	0	0	1	0	1
Beneficiaries	0	0	0	1	0	1
Project management	0	0	1	0	1	2
Dependence degree	2	2	3	4	3	

Source: research findings

Step 4: *leveling the factors affecting the evolution of the tax system*

At this stage, according to the explanations given in the methodology section of the research, the factors affecting the evolution of the tax system have been stratified and presented in Table 10.

Table 10. Leveling of factors affecting the evolution of the tax system

Agents	Input	Output	Subscribe	Level
Human resources	C^1, C^2	C^1, C^2, C^3, C^4, C^5	C^1, C^2	Level 4
Infrastructures	C^1, C^2	C^1, C^2, C^3, C^4, C^5	C^1, C^2	Level 4
Integrated tax system	C^1, C^2, C^3, C^5	C^3, C^4	C^3	Level 2
Beneficiaries	C^1, C^2, C^3, C^4	C^4	C^4	Level 1
Project management	C^1, C^2, C^5	C^3, C^5	C^5	Level 3

Source: research findings

Step 5: *Drawing the network of interactions:*

In this step, according to the levels of variables and the final access matrix, the ISM model is drawn. This form is called structural model or diagram in structural-interpretive modeling.
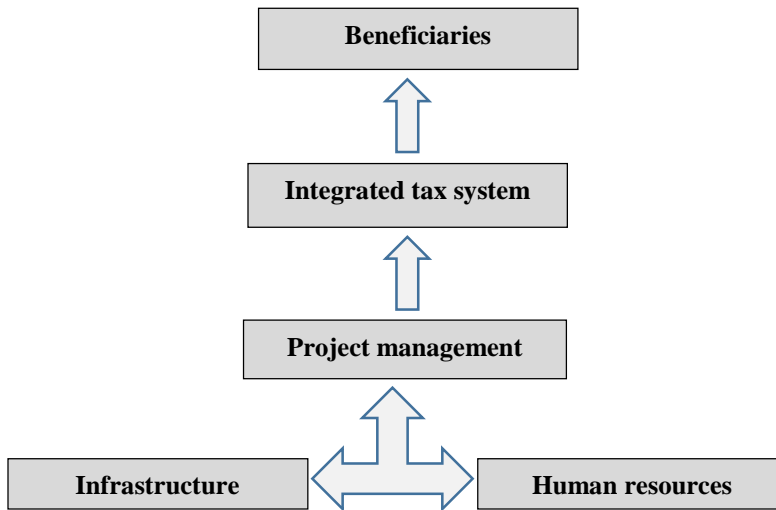
Fig 1. Leveling of factors affecting the transformation of the tax system

Source: Research Findings

Step 6: *MICMAC analysis:*

In MICMAC analysis, the factors are divided according to the power of influence and degree of dependence as explained in the methodology section of the research. The analysis of MICMAC is shown in Fig 2.

		1	2	3	4	5
	5		C^1, C^2			
	4		Independent			Associative
	3					
	2		Autonomous	C^5		Dependent
	1			C^3	C^4	
		1	2	3	4	5
		The dependence degree				

(Penetration power — vertical axis label)

Fig2. Power of transmission and the degree of dependence of factors affecting the

evolution of the tax system

Source: Research Findings

According to the leveling of factors affecting the evolution of the tax system in Figure 1, human resources and infrastructure are the most influential factors, and the closer we get to level 1, the intensity of influence decreases and the intensity of influence increases. Also, according to the graph of influence and degree of dependence, human resources and infrastructure factors are placed in the independent area, which will have the greatest influence on other factors and the least degree of dependence. The factors of the integrated tax system and the owners of the interests are located in the autonomous region, which have the lowest level of influence and the level of dependence, they do not have much influence on other factors. Project management factor which is a setting variable that will change with the change of other factors of its type.

5. Conclusion

Tax reform is the process of changing the way taxes are collected or managed by the government and is usually undertaken to improve tax administration or to provide economic or social benefits. Tax reform can include reducing the level of taxation of all people by the government, making the tax system more progressive or less progressive, or simplifying the tax system and making the system more understandable or more accountable. Numerous organizations have been set up to reform tax systems worldwide, often with the intent to reform income taxes or value added taxes into something considered more economically liberal. Other reforms propose tax systems that attempt to deal with externalities. Such reforms are sometimes proposed to be revenue-neutral, for example in revenue neutrality of the FairTax, meaning they ought not to result in more tax or less being collected. Infact the tax reform is the process of changing the way taxes are collected or managed by the government and is usually undertaken to improve tax administration or to provide economic or social benefits. Tax reform can include reducing the level of taxation of all people by the government, making the tax system more progressive or less progressive, or

simplifying the tax system and making the system more understandable or more accountable.

The changes and transformations created in the values and cultures, expectations and social demands of the citizens have also affected the executive bodies. The change in people's tastes, demands and expectations has caused the transformation from an endogenous issue to an exogenous issue. To explain the evolution of the tax system in the Tax Affairs Organization of the North of the country, 5 factors are human resources, infrastructure, integrated tax system and owners. The benefits were identified. According to the results of the present research, it is suggested that considering the evolution of the tax system, the issues of human resource management, tax infrastructure, development of an integrated tax system, attention to the owners of interests and the management of tax system plans should be seriously discussed at the macro level. In long-term plans, emphasis should be placed on maintaining and strengthening it.

In order to reform the tax system, the following are suggested:

✓ Regulatory, clear and transparent implementation of the organizational rules of tax affairs;

✓ Equal treatment with all taxpayers;

✓ Being accountable to people and regulatory organizations regarding violations of regulations;

✓ Training and exchanging information efficiently;

✓ Reducing the areas of corruption by complying with tax regulations and laws - Mechanization of operations and optimization of tax processes to reduce social and economic costs;

✓ Creation and development of central processing centers;

✓ Reform and alignment of human resources services;

✓ Creation and development of information technology standards;

✓ Implementation of the automation of headquarters affairs;

✓ Creation and deployment of the tax operations management system for the tax staff - Creating and updating the information website;

✓ Public information through mass media;

✓ Familiarizing tax brokers with the tax collection process;

✓ Acquainting taxpayers with tax collection procedures, specifying tax collection procedures and easy access to tax laws. Also, it is suggested to the researchers for future researches to assess the extent of realization of the tax system transformation plan, to evaluate the effectiveness of the tax system transformation plans. It is worth mentioning that in the process of conducting any research and scientific project, at any level, there are a series of causes and factors that slow down the speed of the researcher and research to achieve the goal, and this research is also an exception to this rule. These limitations include: conducting research in the tax affairs organization of the northern provinces of the country reduces the generalizability of the research results to other departments of this organization. Also, convincing people about the confidentiality of information and expressing their opinions towards the organization.

Funding

This study received no financial support from any organization.

Authors' contributions

All authors had contribution in preparing this paper.

Conflicts of interest

The authors declare no conflict of interest

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