

## Providing a Model for Promoting Public Participation in Tax Matters with Emphasis on Citizenship Education (West of Tehran)

Mohammad Reza Ghiasi<sup>1</sup>, Mostafa Niknami<sup>2\*</sup>, Afsaneh Zamani Moghadam<sup>3</sup>, Kamran Mohammad Khani

1. Ph.D. Student; Department of Educational Management; Science and Research Branch, Islamic Azad University, Tehran, Iran
2. Full Professor; Department of Educational Management; Allameh Tabatabaie University, Tehran, Iran
3. Associated Professor; Department of Educational Management; Science and Research Branch, Islamic Azad University, Tehran, Iran
4. Associated Professor; Department of Higher Education Administration; Science and Research Branch, Islamic Azad University, Tehran

### Article history:

Received date: 8 September 2017

Review date: 1 November 2017

Accepted date: 11 January 2018

Printed on line: 4 October 2018

### Keywords:

Public participation, tax, education, citizenship education

### Abstract

**Purpose:** One of the indicators of economic development in the countries is the participation of citizens. One of the most important issues is the participation of citizens in paying taxes. **Methodology:** In this research, a model for promoting popular participation in paying taxes at the Tehran Tax Administration has been addressed. This study was carried out in combination; in the qualitative section, a sample of 20 individuals was deliberately targeted at experts in the field. The qualitative tool in the research was a semi-structured interview and a small tool for a researcher-made questionnaire. The statistical population of this study is 384 attendants and 254 employees of the General Directorate. A random sampling method was used. According to the opinion of the professors, the tool was selected through the implementation of 30 questionnaires and the determination of Cronbach's alpha. The research used in this study was exploratory factor analysis, T test, Factor Factor Analysis and Verifiable Factor Analysis, which was performed using SPSS software and Lisrel software and MonteCarloPCA program and structural equation modeling technique (SEM). **Findings:** The research findings show that in this study 8 factors have been discovered to increase the participation and its model has been extracted and approved by the experts. Among these factors, technological and economic have the highest value and have been introduced as the most important factor for promoting participation. **Discussion:** these couple therapy approaches can be used as a useful strategy for creating coherence and creating a conscious relationship to the interaction of mental elements to improve couples' relationships.

**Please cite this article as:** Ghiasi, M. Niknami, M. Zamani Moghadam, A. Mohammad Khani, K. (2018). Providing a Model for Promoting Public Participation in Tax Matters with Emphasis on Citizenship Education (West of Tehran), *Iranian journal of educational Sociology*, 1(9), 140-162.

\* Corresponding Author: [dr\\_niknami@yahoo.com](mailto:dr_niknami@yahoo.com)

## 1. Introduction

Given the fact that most educational and educational management experts consider the role of education, learning and educational centers in developing tax knowledge and the unique tax culture, education system can be used in the field of tax knowledge acquisition, culture Taxation, Resistance Economics, and Sustainable Economy. If the educational system of a tax community has a good coherence and planning, it can naturally be expected that tax participation will expand in society and the community will witness the growing participation of its citizens. This will provide a platform for the widest possible development of society in different dimensions, and the economic, welfare, sustainable development, with the participation of the people in the payment of taxes will be predicted that with the energy of citizen participation never in the cycle The economy and the development of the entire country will not create stagnation and stagnation, and due to this, the country and the society will be developed (Samadi et al., 2014).

Economic, financial and tax policies and related issues have always been of particular interest since the formation of governments and the advancement of societies; this has always been of great importance since the introduction of economic theories and advanced and modern economies. And financial, economic, and tax policies are complex, interconnected and multidimensional, which affects other dimensions and other important economic factors. Such factors as distribution of income, efficiency, allocation Resources, economic growth, economic stability, social justice, and so on. That is the attempt to improve social justice The above economics require various research in various fields, including accounting, financial and tax management, economics, law, psychology, sociology, etc.

## 2. Literature Review

In developing countries, the field of government activity is widespread due to the weakness of the private sector's operations. Hence, the state budget plays a decisive role in economic policy. Governments use financial instruments to finance policies and the effectiveness of financial policies depends on the proportionality and composition of financial instruments and their flexibility and their impact on economic goals. In the Iranian economy, the dependence of the state budget on oil revenues and the inflexibility of government expenditures has led to ineffectiveness of financial policies, which, in turn, has diminished the role of tax revenues in reducing the government deficit and its fluctuations (Samadi et al., 2014). In every economic system, taxes are considered one of the most important elements of the system. In fact, tax is one of the most important economic infrastructure that plays an important role in sustainable growth and development, providing social justice through redistribution of income, wealth and optimal allocation of resources. Also, with austerity and real tax, one can cope with the important social and economic problems of governments, such as budget deficits, unemployment and lower investment in productive sectors (Ghiathi, 2017).

A look at the contemporary world and the complex social interactions between humans make the need for citizenship more prominent. Today, in the macro-social system, which governments formulate strategies, and in areas, provinces, and cities and in the family subsystems that parents are the authors of the goals and strategies, the existence of people with characteristics such as accountability, critique, patriotism, and summary in a responsible word of the person responsible for vital and important components. Importance of this The factor is that many community strategists lack the same factor as the most important reason why programs and programs are not implemented. Know that with many experts and carefully developed is intended. Citizenship is a subject that was first introduced in the social sciences, but the necessity of paying attention to it has led to its emergence in other categories, including the field of education as a fundamental field (Fathi Vajargah, 2017).

John Raulles regards citizenship as a just society, he believes citizenship is a stream that, in its own context, leads to the growth of citizens who have not only the right to liberty but also the right to ensure the justice of society. In such a process, people, in addition to forming their own society, try to preserve the elements of society in a blurring of their duties and responsibilities. He argues that the main issue of citizenship, the concept of justice and the basic structure of society in addition to the concept of justice, it also puts the basic structure of society that governs social institutions. The consecration of the duties and responsibilities of citizenship among the population distribution and the possibility of participation in social interaction provides returns (Fathi Vajargah, 2017).

In general, citizenship education is defined as the creation of knowledge, skills, attitudes and values that enable the knowledge of education (citizens) as active and informed citizens in society. The goal of citizenship education is to acquire knowledge and knowledge only. But rather the use of these agendas and knowledge to increase participation in various civil society, local community and international community (Farahani, 2017). Linguistic participation means engaging people to do something. Regarding the lexical meaning, participation is considered to be two-way that a person usually (albeit not always) willingly accepts that he cooperates with Fredia Group to do something (Shakouri, 2014).

Citizenship education is the process of transferring knowledge, values and attitudes necessary for the political participation and stability of society from one generation to the next. This transfer includes a variety of issues such as: knowledge of the history and structures of political institutions, the sense of loyalty to the nation, Positive attitude towards political authority, belief in fundamental values (such as rule of law, tolerance and tolerance). Interest in political participation and the acquisition of the skills needed to understand and monitor public policy. Citizenship education is the growth and fostering of informed, responsible decision-making and action in social, political, economic and cultural life. Today, in developed societies, citizenship education is considered at three levels: local, national, and global. Paying attention to every level, life in today's world faces its own complex problems and obstacles. Citizen education is possible in the best possible way, through active engagement in public affairs, voluntary non-governmental organizations and organizations, popular movements and a range of functions in the community. Effective citizenship education is a powerful and lasting system of practical training. It requires the people of the community, in addition to knowing the various dimensions of the obligations and fundamental rights in a community, to take them to the realization. Therefore, theoretical training to create effective citizenship is not enough and should be complemented by citizen education that focuses more on active and practical engagement (Iran Manesh, 2014, p. 307).

Cultural development through education (through textbooks) and group media (TV programs, etc.) will also be fruitful in institutionalizing a tax culture. Designing suitable television programs in such a way that companies and individuals who Moody's have been happy to attend, they can turn the tax into a person's identity so that in the person's resume, timely and voluntary payment of taxes becomes an honor. In this regard, the use of well-known artists and athletes is also very Will be effective. Undoubtedly, the culture of paying taxes will be enhanced by the achievement of the goals of the twenty-year vision (World Economy, 2015).

The need for people to participate in education in today's world. Participation and education are the fundamental foundations of development, as education is the result of the activities of the three main institutions of the home, school and society, the cooperation of these three institutions in the affairs Education is increasingly needed. Participation in special education is not critical for the country's critical periods and not for the education system, but for the sake of the optimal education of the country's natives, the participation of various social groups is always necessary and necessary. The link between the topic of participation is rooted in the long history of nations and relies on a particular period or particular individuals, and based on the philosophical, religious, psychological, political, economic and human needs of the human being. Accordingly, different types of participation can be distinguished, each of which is based on one of

the above principles. One of the types of partnerships is participation in education that is tied to all the above-mentioned bases and is an irrefutable necessity. Given the above, and in general, participation is one of the components of the importance of sustainable development, and the results Favorable to social performance. Local participation is one of the important capacities of human communities and is considered as one of the optimal results of social capital.

Sandro Casala et al. (2016) concluded in their research that reducing the social gap between taxpayers and tax authorities has led to higher taxpayers and increased acceptance of compliance and participation in tax laws. Krichler et al. (2016), in an attempt to answer the tax question, in a glimpse of tax compliance decisions, "in a climate of distrust, the high tax pressure of the tax organization by enforcing tax compliance, increasing crimes and possible audit It's happening. It's an effective tax policy, but as long as the taxpayers trust the tax organization, other variables are also important. Knowledge, attitudes, ethics, fairness, and democracy can lead to voluntary compliance. Motrin (2016), in research He considers the public participation as a human right and a citizen Citizens are accepted as a social reality. On the other hand, public participation is a prerequisite for comprehensive development and sustainable development, and also refers to the relationship of participation with citizen's awareness. In the year 2016, Freewheel (2016) has witnessed the expansion and attention The potential of citizen participation for the promotion and realization of the three goals (democratic governance, effectiveness, legitimacy and social justice) and emphasized the positive role of citizen participation in social justice.

Ghiathi (2017) conducted a study on citizenship education, especially tax affairs, by a researcher on tax education in citizenship issues by the Ministry of Education in New Zealand. The following is a summary that is presented briefly. In New Zealand (2017), in the area of citizen education, one of the dimensions of citizenship education, the teaching of tax issues to Citizens of the Land of London, is being carried out extensively by the Ministry of Education. The New Zealand Education Office in this regard is an online site. In order to educate citizenship, especially education, it has created an amorous financial system. This site has been set up as a virtual educational center for all levels of education and age and educational levels. The courses are tailor-made for ages and step by step.

In New Zealand (2017), the site of the virtual training center said that the content of the tax amnormal object is very interesting and is taught in brief sentences. In this training package, the definition of taxes, the reason for the tax, the impact of taxes on citizens and society, and ... at all levels, are proportional to the age and educational level; this fact promotes the tax culture on the one hand, and the motivation and belief of citizens to play an effective role. Tax will be in the welfare of society. Leffler et al. (2017) have pointed to the role of citizens in public decision making and public services, pointing out that in recent decades' governments increasingly require the involvement of citizens in public decision-making and public services. In their book, sources and the benefits generated through public participation, and argued that recent research has shown that public participation is of great importance. It also focuses on the motivation and motivation of its role in public participation. McConeville (2018), in his study, "Citizenship and their oversight on how to spend paid dollars," states that if citizens are more involved in local and regional decision making and they are a participatory society Atmosphere and democracy. Their trust will increase for officials, especially tax officials. And citizens can see how taxes are collected and paid, and in general, they have reported the transparency of economic performance, information, awareness and trust with the participation of citizens.

### 3. Methodology

In terms of research purpose, they are classified into two categories: fundamental and applied, the fundamental research is the kind of research that leads to the development of knowledge. Applied research, as its name implies, is a research that has been applied to its results in a particular field of research. Therefore, the present study is an applied objective. Because its results can be used to promote citizen participation in tax matters, which is one of the factors of economic development and all-round development of the country. As previously stated, the main and important task in the present research was the discovery of the main phenomenon; this important and the process took place at the selective coding stage, and subsequently relations were established. The main phenomenon of this research is determining the factors affecting popular participation and the needs of citizenship education, the method of education, educational executives, educational content. By means of qualitative research and time-consuming but deep, quality, with love, patience, sense of responsibility The sense of service, professional ethics, career experience, experiential support, and years of service have been the theoretical foundations of colleagues; this can be a driver for effective, organizational excellence and organizational productivity.

The present research is based on the method and method of collecting data, surveying, descriptive as it relates to the status quo; also in terms of doing, because in a real environment and in the field that the General Directorate of Tax Affairs of Tehran West (guides and employees) Has been implemented. Research is a combination (quantitative and qualitative) side because the literature and literature analysis is used to collect the required data in the research, and the qualitative research tools (expert interviews) and quantitative research (questionnaire) and its implementation in the selected sample of the target community Used.

In this research, which was carried out in combination (qualitative and quantitative), in the qualitative section, a sample of 20 individuals was targeted purposefully from expert experts in the field. The qualitative tool in the research was a semi-structured interview and a small tool for a researcher-made questionnaire. The statistical population for the department is 384 attendants and 254 employees of the General Directorate. The random sampling method was a random sampling. Content validity was used to assess the validity of the method. The validity of the tool was confirmed by professors and teachers. The reliability of the tool was evaluated through the implementation of 30 questionnaires and the determination of Cronbach's alpha, which is equivalent to 9.9. The research used in this research is factor analysis Exploratory, T-test and single-sample T-test, factor analysis and confirmatory factor analysis. Using SPSS software, and lisrel software.

### 4. Findings

In this research, according to the variables studied and the type of data collected, in order to describe them from the central tendencies, dispersion and distribution of scores were used. In the statistical analysis, based on the nature of the measurements scale that is of a distance type and the research hypotheses were used to analyze the data as a case of exploratory and confirmatory factor analysis, one-sample t-test and paired t-test were used. The detailed results of these calculations in this chapter are presented in two parts of the description and analysis of the data. The data obtained from the measurement of various variables are described by using appropriate methods of descriptive statistics, frequency, percentage, and central tendency indicators such as mean, median, and standard deviation.

**Table 1.** Amount and percentage of taxpayers and tax staff in western Tehran

percent	frequency	group	
39.54	259	male	payers
20.45	134	female	
32.97	216	male	personal
7.02	64	female	
100	655	sum	

**Table 2.** Indicators of central tendency and dispersion of factors affecting popular participation in desirable situations

Variables	The least	The highest	average	Standard deviation	Skidding	Elongation
Education	4.00	7.00	6.69	0.50	-0.441	-0.653
Culture	4.00	7.00	6.52	0.57	-0.256	-0.615
Managerial	4.00	7.00	6.19	0.61	-0.182	-0.502
social	4.00	7.00	6.14	0.65	-0.149	-0.527
Legal	4.00	7.00	6.03	0.73	-0.109	-0.465
Economic	4.00	7.00	6.27	0.54	-0.141	-0.426
Political	4.00	7.00	6.12	0.60	-0.129	-0.433
Technologically	4.00	7.00	6.43	0.65	-0.572	-0.528

Based on the statistical calculations about the normality of scores in the current status of public participation in tax payment, the Kolmogorov-Smirnov test has been used. The results are as follows: According to the results obtained in all indices, the values are  $\text{sig} > 0.05$ , which indicates that The scores of factors affecting popular participation in normal tax payments in the current situation are normal. In order to identify the effective factors of popular participation in paying taxes, after deep and scrutinizing the theoretical foundations and the history of studies carried out on the subject of research and the use of comments and views of the owners in a number of stages, and finally the main factors of identification Then, for each of the factors, the items were defined and designed. Then, the exploratory factor analysis method was used as one of the statistical methods for the analysis of data in the data set, which was developed by Carl Pearson and Charles Spearman (Clinic, 2015; Safari, 2017). 2) As the results of Table 2 show, in the optimal situation, the lowest mean for the "legal" factor was 03.03 with a standard deviation of 0.73 and the highest mean for the "training" factor was 6.69 with a standard deviation of = 0 is

**Table 3.** Bartlett & Como test results

.910	KMO	
111483/29	Chi-square	Bartlett
4186	Degrees of freedom	
0/000	Significance level	

As Table 4 shows, the KMO value is 0.96 which is above 0.9 and the significance level of the Bartlett test, which is less than 0.05, suggests that the research data for implementation Factor analysis is "excellent". According to the results of the initial and extraction subscriptions, it shows that the extracted coefficients are all higher than 0.4, except for the 46, whose coefficient is 269 and less 0.4, which should be eliminated, but the rest of the formula They do not need to be truncated, and the data is "very suitable" to perform a factor analysis.

According to the output, the exploratory factor analysis is called the Shared Table, which shows the coefficients of the variables. Gives. If this number is less than 0.4 in a variable, then that variable (question) must be deleted and the exploratory factor analysis again performed. The larger the extraction subscription value, the extracted factors show better the variables.

**Table 4.** Commons table in the 8-component solution

item	Primary Shares	Extraction shares
1. Awareness of the necessity and importance of paying taxes in the provision of public services to citizens by the Tax Administration	1	0.643
2. Increasing knowledge of taxpayers about tax processes (registration, processing, detection, collection and payment)	1	0.849
3. Positive attitudes towards the accountability and accountability of the tax system towards the community and citizens and the use of resources	1	0.763
4. Awareness of tax laws and regulations (methods of calculating taxes, method of completing the declaration, etc.) to the bearer	1	0.775
5. Awareness of the general rules and regulations (law of calculations, rights, accounting principles, etc.) to the bearer	1	0.757
6. Skills of execution of the processes (registration, processing, detection, receipt) to the attendants	1	0.790
7. Skills of execution of the processes (registration, processing, detection, receipt) to the attendants	1	0.851
8. Familiarity with the tax laws and the importance of paying taxpayers through the media	1	0.635
9. Familiarity with Tax Laws and the Importance of Taxes through Social Networks for Leaders	1	0.722
10. Conducting a workshop and planned and continuous training courses on tax issues by academic centers for the attendants.	1	0.781
11. Holding workshops on Tax issues and problems by the Tax Affairs Organization for Leaders	1	0.782
12. Conducting planned and continuous training courses on tax issues by the Tax Affairs Organization for Leaders	1	0.768
13. Promoting positive beliefs about the impact of tax collection on developing countries	1	0.779
14. Promotion of the status of dignitaries in society and disparaging knowledge of avoidance and tax evasion in society.	1	0.668
15. Taxation by means of media, audiovisual and visual culture, and support for national culture of tax subculture	1	0.724
16-A legal and decisive deal with the offenders in the tax system of the country	1	0.779
17. One is the promise of the tax authorities regarding the legitimate and justified demands of taxpayers	1	0.745
18. Drafting a Code of Ethics for employees of the Organization for the Administration of Tax Affairs in the Chamber of Commerce (Recognition, Recognition and Acceptance)	1	0.777
19. Professional Ethics Training for Employees of the Tax Affairs Organization	1	0.711
20. Honesty of tax authorities by encouraging and discounting taxpayers who faithfully act on their legal duties and duties.	1	0.670

21. Loyalty and commitment of the managers and staff of the Organization of the Islamic Republic to the development of their society and the rights of the pledgers	1	0.791
22. Increasing the credibility of the taxpayer towards the tax system with a sense of commitment in the staff	1	0.700
23. Trust with rational and rational sustainability and sustainability in the decision of the officials of the Tax Affairs Organization regarding the Leaders	1	0.761
24. Selection of the most coherent, efficient, efficient and up-to-date executive records for accuracy and facilitation of affairs.	1	0.676
25. Coherence and coordination between different units of the tax affairs organization	1	0.591
26. Coherence and national unity with the full sense and comprehension of the authorities and the taxpayer	1	0.738
27. Empowerment in the Tax Affairs Organization to facilitate tax affairs	1	0.628
28. Establish a flexible structure in the organization of tax matters with regard to the different circumstances (contingencies) of the compilers	1	0.739
29. Facilitate access by taxpayers to executive authorities	1	0.666
30. The process of attracting, empowering and employing a dedicated and dedicated specialist in the administrative and tax administration system	1	0.828
31. Standardization, lubrication, executive processes (registration, processing, detection and collection of taxes)	1	0.765
32. Justice, Transparency, Transformation and Facilitation in the Tax System by Implementing the Tax Code	1	0.740
33. Reduction of administrative bureaucracy (redundant paperwork) in the process of execution (registration, processing, detection and collection of taxes)	1	0.769
34. Reducing the frequency of recruiting a taxpayer to an organization for an executive's activity	1	0.830
35. Focusing and aggregating taxes (direct, value added, etc.) in any office	1	0.736
36. Equality and non-discrimination in the investigation (audit, recognition and collection of taxes), taxpayers' records	1	0.745
37. The role of tax revenues in re-distribution of income (reduction of class gap) and the expected justice in society	1	0.769
38. The role of taxes in supporting the development and promotion of social justice	1	0.853
39. Commitment and Trust of Officials and Personnel of the Tax System to Bait Elmal and Government Rights	1	0.862
40. Commitment and sense of philanthropy to a vulnerable and low income group	1	0.797
41. Commitment and Trust of the Officials and Employees of the Tax System to the Paid Rights	1	0.724
42. The interaction between various tax-related entities (unions, lecturers, etc.) to provide a fair and equitable recognition of taxes.	1	0.775
43. Flexibility and acceptance of economic problems caused by the recession of taxpayers and their impact on tax identification.	1	0.742
44. Effective communication between the tax authority and the trade unions and representatives of the parties for the formulation of an operational plan, such as (determination of tax rates, share of members' taxes, agreements, etc.)	1	0.877
45. Helping to realize the comfort of the public and the people of the country	1	0.842
46 Helping to achieve continuous improvement in the creation of poverty and poverty reduction in society with tax resources...		0.868
47. Contribute to the development of social development indicators (education, health, etc.)	1	0.847
48. Revision, simplification and transparency of laws and regulations, tax codes and tax regulations for compliance with tax law.	1	0.872
49. Implementing the same, transparent and non-discriminatory laws and regulations for all taxpayers	1	0.799



50. Reviewing and clarifying the exemptions and exclusions contained in tax laws and regulations to increase the tax base.	1	0.908
51. Stability in laws and regulations, directives and tax-related tax guidance	1	0.788
52. Avoid the multiple issuance of parallel directives and directives to prevent the violation of the rights of pledgers.	1	0.632
53. Stability in executive processes (registration, processing, detection and collection of taxes)	1	0.881
54. Validation of Paid Offices for Facilitating Facility (Payment of Facility and Bank Preferences, ...) Based on Tax Credit	1	0.881
55. Supervision of institutions of the people on all the processes of registration (registration, investigation, recognition and collection of taxes) and the payment of taxes	1	0.662
56. Approval of incentive (incentive) and tax incentive (deterrent) tax rules.	1	0.806
57. The decisive determination of authorities to pay taxes collected for the comprehensive development of the country and the safeguarding of tax resources	1	0.770
58. The role of taxes in the development and development of infrastructure of the country	1	0.841
59. People's awareness and belief in the tangible impact of tax-evolving development in the lives of the general public	1	0.738
60. Punishment of information concealment and concealment in tax affairs	1	0.675
61. Provide incentive packages to those who, according to auditors, provide the company with the most accurate financial information to the tax authorities.	1	0.810
62. The tax office's relationship with all financial information databases for correct tax identification and prevention of hidden economy.	1	0.734
63. Tax status in realizing and achieving sustainable economic growth in the country	1	0.759
64. Tax status in controlling and avoiding recession in the economic system of the country	1	0.728
65. The tax position in controlling and controlling the economic inflation in the country	1	0.784
66. Status and role of taxes in financing and realization of development budget (ownership of capital assets)	1	0.800
67. Tax status in the supply and implementation of the current budget (current costs) of the country	1	0.834
68. The role and place of taxes in the national and comprehensive development of the country and the reduction of dependence on national reserves (oil and ...)	1	0.864
69. Identifying and discovering new sources of economic centers without tax records	1	0.672
70. Active participation in helping to sustain a strong government in the interior and in the international community	1	0.603
71. Ensure comprehensive security of the country by strengthening strong defense, economic and political foundations through legal fees.	1	0.655
72. Incorporation of all economic enterprises to pay taxes in accordance with the power and legal power in the realization of tax justice.	1	0.731
73- Attention to the public's problems by the authorities and assistance in removing them for general satisfaction...		0.793
74. Helping fulfill the legitimate expectations and expectations of the tax system of the country		0.831
75. Continuous assessment of the performance of the organization of tax affairs of the country by tax collectors and making appropriate amendments and modifications based on the evaluation results and their suggestions.	1	0.736

76. Supervision by the inspection agency and the country's court of calculations 666/81 350/1	1	0.765
77. Effective control mechanisms in the Tax Affairs Organization to prevent errors in executive processes.	1	0.847
78. Supervision of civil society organizations, including unions, mass media and ... on the executive processes and performance of the organization of tax affairs	1	0.799
79. The rule of law and its impartial implementation at all stages of the implementation of the Taxation Organization 162/82 150/1	1	0.659
80. Impartial and impartial proceedings in the various stages of obtaining tax for the observance and exercise of the rights of bearer	1	0.784
81. Taking into account the interests of the whole society and people in the formulation of tax laws and regulations	1	0.816
82. Implementation of the National Tax System and Electronic Taxation Program (E-TAX) 424/83 051/1	1	0.880
83. Electronicization of all processes and activities in the country's tax system	1	0.889
84. Providing a platform and facilitating electronic payment by tax collectors	1	0.793
85. Establishment of a database of beneficiaries of the State Tax Administration	1	0.831
86. Information Security Information for Citizens Tax File at Different Steps (E-TAX) 128/84 002/1	1	0.877
87. Citizens' Financial Security at Different Stages of Implementation (E-TAX)	1	0.869
88. Process security in different stages of implementation (E-TAX)	1	0.858
89. Online consultation (on-line) comprehensive and comprehensive for those in charge of various tax matters 998/85 000/1	1	0.874
90. Provide the opportunity to exchange information and receive citizenship reports online	1	0.863
91. Accountability of the State Tax Administration to requests and inquiries of the Chiefs and various offices electronically	1	0.881
92. Removing or reducing the unnecessary physical attendance of attendants at tax departments to carry out current affairs	1	0.825

According to the above table, the value of the shares of all items is above 0.4, which confirms the suitability of the data and the factor analysis.

The following table shows the specific amount, percentage of variance, and compaction percentage of the remaining factors in the analysis (factors that have a specific value greater than or equal to 1) before and after the varimax rotation.

**Table 5.** Specific value values, percentage of variance and compression variance percent for the extracted factors in the 8-component solution

Factor	Amounts Special			Total squares after varimax rotation		
	Amounts Special	Percentage of variance	Concentration percent	Amounts Special	Percentage of variance	Concentration percent
1	29.779	32.369	32.369	10.489	11.401	11.401
2	10.934	11.884	44.253	9.706	10.550	21.951
3	8.539	9.282	53.535	9.510	10.337	32.288
4	6.176	6.713	60.248	9.489	10.314	42,602
5	5,015	5.451	65,700	9.110	9.903	52.505
6	4.290	4.663	70.362	7.890	8.576	61.081
7	3.302	3,589	73.952	7.477	8.127	69.209
8	2.979	3.238	77.189	7.342	7.980	77.189
9	1.781	1.935	79.125			
10	1.642	1.785	80.910			
11	1.329	1.444	82.354			
12	1.239	1.347	83.701			

13	1.060	1.152	84.854			
14	0.899	0.977	85.831			
15	0.816	0.887	86.718			
16	0.781	0.849	87.567			
17	0.695	0.755	88.322			
18	0.670	0.728	89.050			
19	0.633	0.688	89.738			
20	0.551	0.599	90.337			

According to the results of the above table, the special values of the eight factors are equal to one, and the percentage coverage of the variance among the variables for these eight factors explains 77.19% of the total variance of the variables. In other words, if 8 items are extracted from the set of items based on the above, it is explained as much as 77.19% of the total variance. In the meantime, the first factor justifies 11.41% of the total variance and the eighth factor of 98.9% of the variance.

In total, after factor analysis and from the total of items, 8 factors were identified as the main factors.

1- The first factor: the factor "culture" is called. This factor accounts for 11.4% of the factor load of the identified factors and includes 13 items.

2- Second factor: The term "education" is called. This factor accounts for 10.55% of the factor load of the identified factors and includes 12 items.

3- The third factor is the "technological" factor. This factor accounts for 10.43% of the factor load of the identified factors and includes 10 items.

4. The fourth factor is called the "economic" factor. This factor accounts for 10.31% of the factor load of the identified factors and includes 12 items.

5. Fifth factor: The "social" factor is named. This factor accounts for 90.9% of the factor load of the identified factors and includes 11 items.

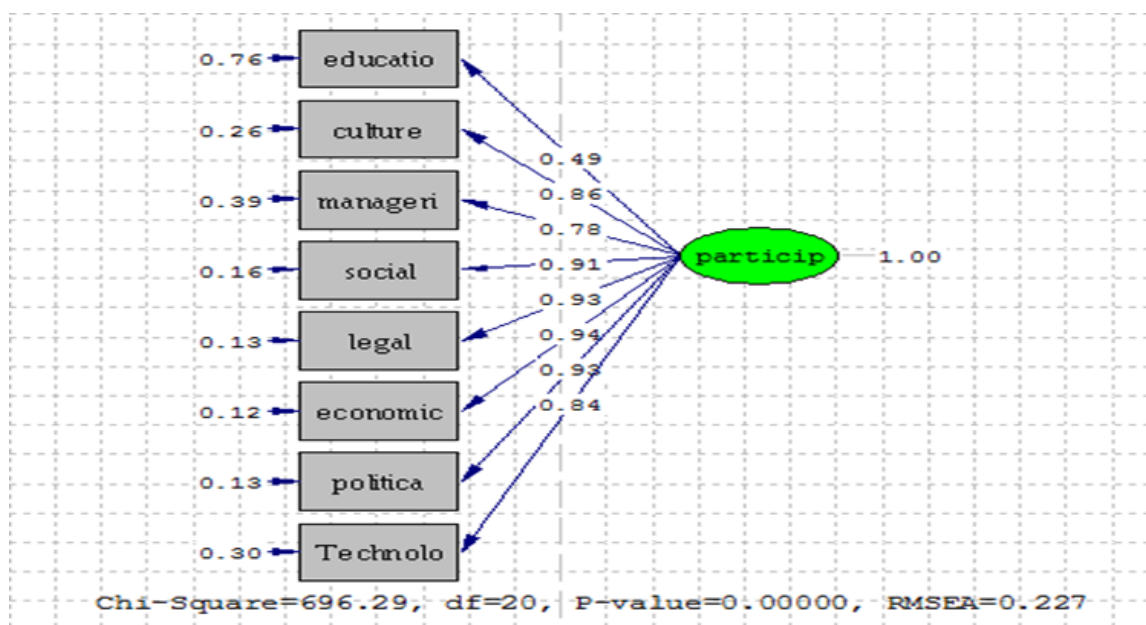
6. Sixth factor: The "managerial" factor is called. This factor accounted for 58.8% of the factor load of the identified factors and includes nine items.

7. The seventh factor is called the "political" factor. This factor accounted for 13.13% of the factor load of the identified factors and includes 11 items.

8. Eighth factor: The "legal" factor is called. This factor accounts for 7.98% of the factor load of the identified factors and includes nine items.

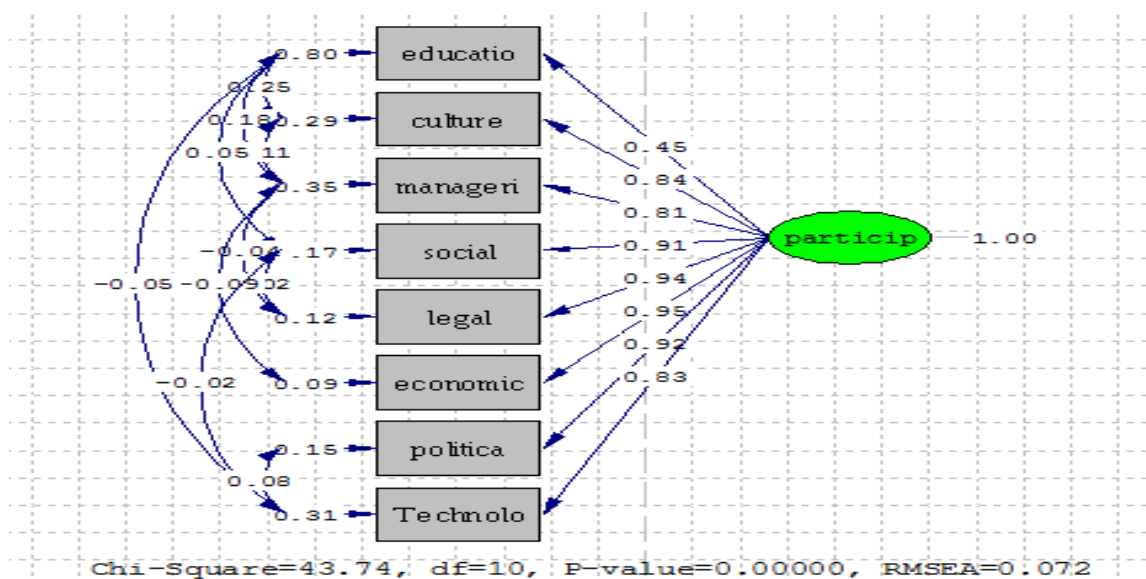
What kind of model can be used to promote popular participation in tax payments? To answer this question, the conceptual model was first developed on the basis of the contributing factors of the question of a research. The structural equation modeling technique (SEM) was used to test and validate the conceptual model of the research. The confirmatory factor analysis model was used. For this purpose, the conceptual model of the research was implemented in the LISREL software package.

A) General model in standard estimation mode: The following figure (1) shows the factor analysis model for confirming popular participation in the estimation of standard coefficients. The model in the case of standard estimation of factor loads shows the factors affecting popular participation. As shown in the figure, the factor load of all factors is within acceptable limits. The model in the standard estimation mode represents the correlation between the variables.



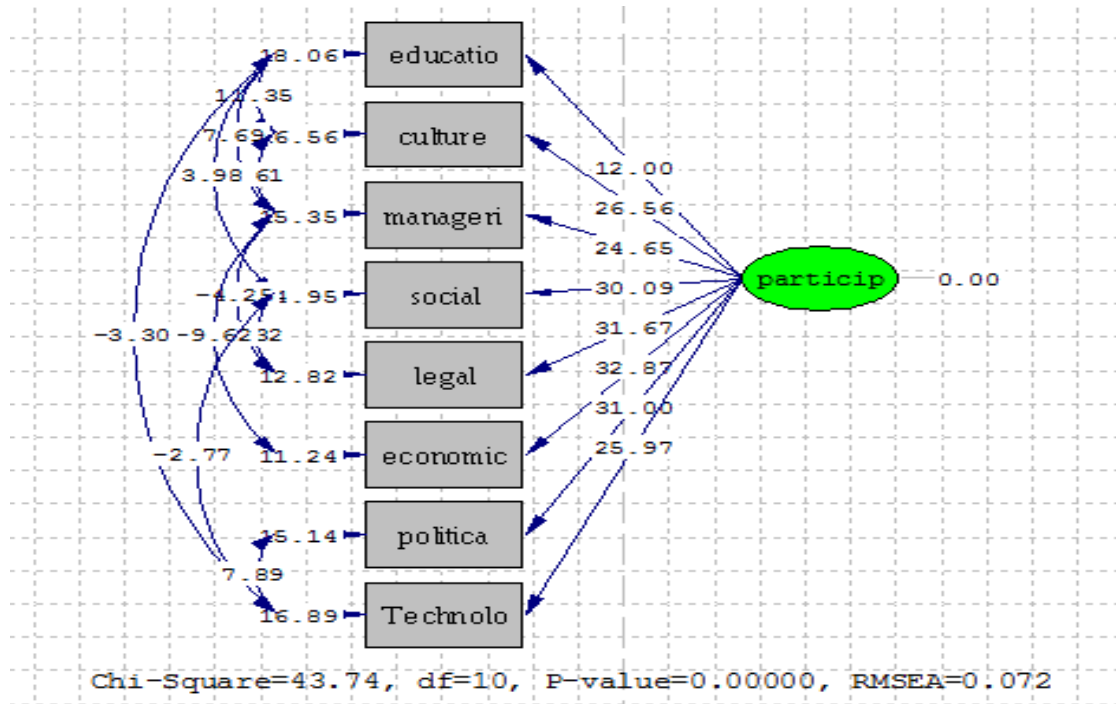
**Figure 1.** Confirmatory Factor Analysis Model for Popular Participation in Standard Estimating

B) Modified model in standard estimation mode: The following figure (2) shows the modified model of the factor analysis confirming the popular participation in the estimation of standard coefficients. The model in the standard estimation mode shows the factor loads of each of the factors affecting popular participation. As shown in the figure, the factor load of all factors is within acceptable limits. The model in the standard estimation mode represents the correlation between the variables.



**Figure2.** Modified Factor Analysis Approach for Public Participation in Standard Estimating

C) Modified model in the meaningful state: Fig. 3 shows the modified model of confirmatory factor analysis for popular participation in the t-value state. This model actually tests all the measurement equations using t statistics. According to this model, the path coefficient and factor loads at 95% confidence level are significant if the value of the t-track statistic is greater than 1.96.



**Figure3.** Modified model of confirmatory factor analysis for meaningful public participation

Given that all the t-statistic values of the paths are greater than 1.96, there is a significant relationship between each of the factors with popular participation. The following table shows the fitting indices of the modified model of factor analysis for popular participation.

**Table 6.** Fit-fit indices related to the modified model

Index name	Estimates	Limit
The square of $\chi^2$	$\chi^2=43/74$ P=0/000      df=10	0P>./5
Chi square on degree of freedom	37/4	Less than 5
Root Mean Squares Estimated Error RMSEA	07/0	Less than 08/0
Goodness of fit GFI	98/0	Above 9/0
Good-bye modified AGFI	93/0	Above 9/0
NFI's softened fit	99/0	Above 9/0
NNFI Fine Fitness	99/0	Above 9/0
The root mean of the remaining squares of the SRMR standard	01/0	Smaller than 0.05
Adaptive maturity CFI	00/1	Above 9/0

The  $\chi^2$  test is often referred to as the fitting goodness index. This index simply indicates whether the model describes the structure of relations between the observed variables. Cheid test tests this zero assumption that there is no difference between the matrix of covariance of the sample and the implicit covariance matrix (society). According to the above table, the chi-square with a degree of freedom of 10 for this model is 74/43 and a significant level of 0/000 is estimated which is significant at the level of 0/05. Therefore, the zero assumption is rejected and we conclude that the chi-square test rejects the exact fit of the model with the observed data. Some scholars use the chi-square ratio on the degree of freedom ( $df / \chi^2$ ) as an alternative indicator. In the case of the Chi-square ratio to the degree of freedom, the value of 3 is acceptable and even up to 5 is recommended as reasonable fit (Boolen, 1989). The Chi-square ratio to the degree of freedom in the present model is calculated to be 4.37, which indicates an acceptable fit for the model.

**Table 7.** The results of measuring the popular participation model

Hidden variables	Obvious variables(implicit)	Load capacity	Error	Statistics t	R <sup>2</sup>	sig	Result
people's participation	Education	45/0	026/0	12.00	20/0	05/0>	Meaningful
	Culture	84/0	0.029	26.56	71/0	05/0>	Meaningful
	Managerial	81/0	0.033	24.65	65/0	05/0>	Meaningful
	social	91/0	0.030	30.09	83/0	05/0>	Meaningful
	Legal	94/0	0.031	31.67	88/0	05/0>	Meaningful
	Economic	95/0	0.028	32.87	91/0	05/0>	Meaningful
	Political	92/0	0.030	31.00	85/0	05/0>	Meaningful
	Technologically	83/0	0.036	25.97	69/0	05/0>	Meaningful

The table above illustrates the factor load of each of the agents introduced into the Laser Level software to provide a participatory model of popular participation on popular participation.

#### Variance Matrix - Covariance

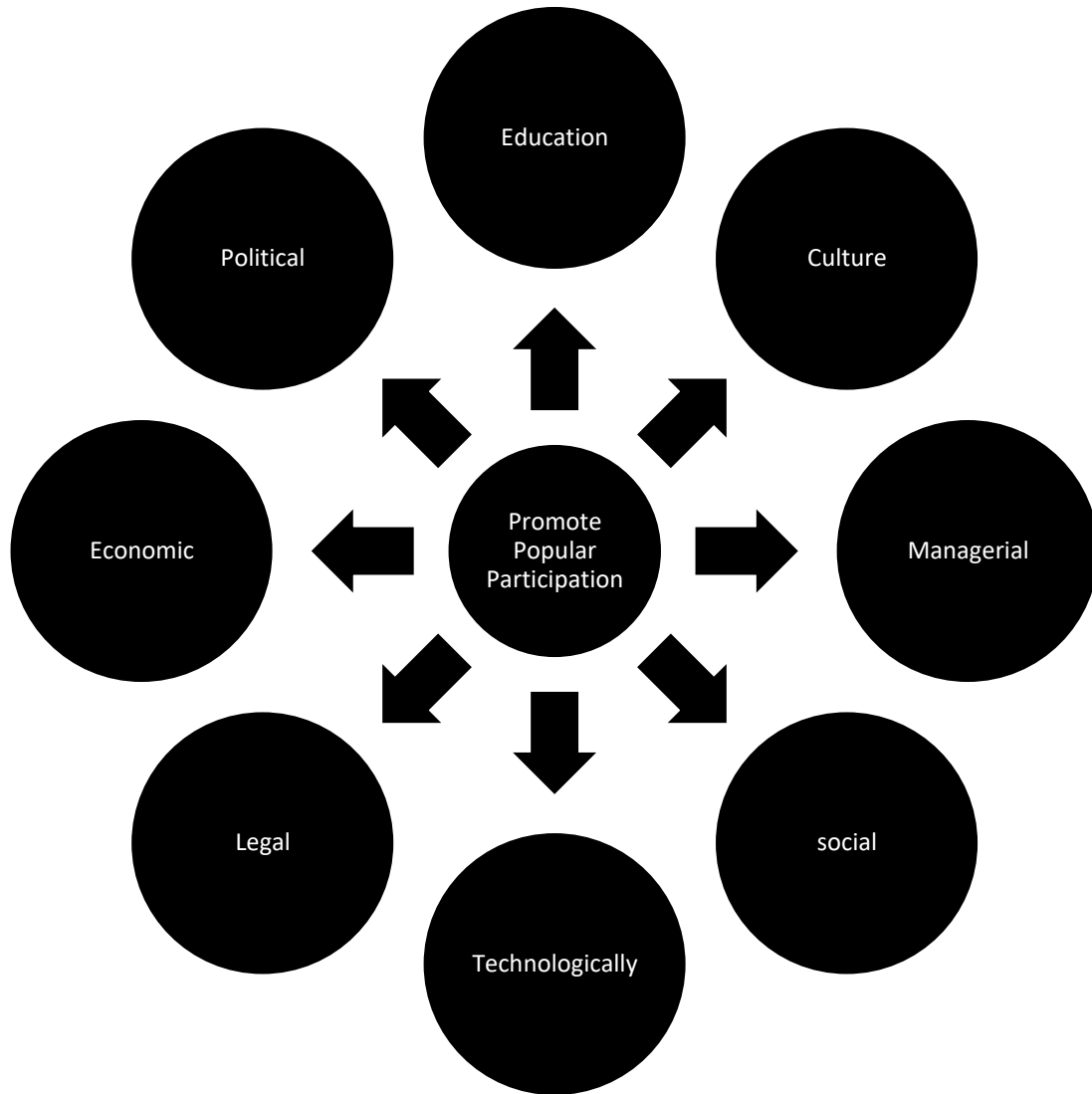
In factor analysis and structural equation model, correlation matrix or covariance is analyzed. The covariance matrix is used for a preliminary study of the relationships between the variables of a multivariate set of data. If there is positive linear relationship between the variables, the covariance is positive and if the relationship between the variables is a photo, the covariance is negative and if there is no linear relationship between the variables, then the covariance will be zero.

**Table 8.** Variability matrix - Covariance of obvious variables

	Education	Culture	Managerial	social	Legal	Economic	Political	Technologically
Education	0.48							
Culture	0.40	0.81						
Managerial	0.39	0.73	1.03					
social	0.33	0.71	0.75	0.97				
Legal	0.32	0.74	0.74	0.89	1.08			
Economic	0.27	0.68	0.65	0.82	0.91	0.94		
Political	0.29	0.72	0.75	0.84	0.91	0.88	1.04	
Technologically	0.25	0.71	0.79	0.81	0.89	0.87	0.98	0.98

The above table shows the covariance variance matrix of the apparent variables in the model, which indicates that the elements on the main diameter represent the variance of the corresponding variable, which actually represents the variations within each variable. For example, the "education" variance is 0.48, which indicates

the lowest variation in the variation and the most variance is related to the "technology" of 1.29. Therefore, the proposed model for promoting public participation in tax payments is presented in Figure 4-5.



**Figure 4.** Final model for Promoting Public Participation (2018-GHIASI)

What is the opinion of experts and experts about the factors affecting the promotion of public participation in tax payments? The results indicate that, from the experts' point of view, all factors affecting popular participation with the mean theoretical at the error level of  $\alpha = 0.05$  were significant ( $\alpha = 0.05$ ).

## 5. Conclusion

As seen in the findings section, the 8 factors (education, culture, management, social, legal, economic, political, and technological). They have been involved in popular participation and have been extracted as contributing factors. In this regard, the results of the research are based on the findings of the research, the proudness of the system (2015), Ghiasi of New Zealand (Citizenship Education and Taxation Education 2017), Kawaja et al., 2011; Hamidi et al. 2015; Ramshini, Mahmoud, Jamshidi, Naser and Gholamhossein Asadi (2012), Azimi (2012), Kasipilai et al., 2003, Raymond et al. (2013), Salehi et al. (2014), Almasi et al. (2014) Alabeda et al. (2012), Chen, Jabindawa, Capistrano and Yen, 2015, and Dawi, Mohammad Reza and Rahimi Asl, Reza, 2014, Jannati and Co-workers of 2016, Katrina Ganges, Eva Huffman and Erich Krichler 2015, Krichler et al., 2016 are aligned.

With regard to the history and literature of research, and with a new look at the findings of field research, it can be said that any phenomenon is affected by various factors and in dealing with various issues; one of these phenomena; the issue of taxation and the way The participation of people and citizens in paying taxes. Therefore, it can be said that by training or applying the teaching of each of the eight factors can have a significant impact on citizen participation. So, if you are considering long-term planning, it should be noted that basic education and learning at the formal levels of preschool, primary, primary and secondary, secondary and university levels were considered. With this in mind, tax culture has been promoted and many of the above factors are affected either directly or indirectly.

As outlined in the Findings section, the 28 factors interfere with public participation and are extracted as partners of participation. As stated, the learning, content, method, and executor, as the overall learning factor, values, honesty, trust, coherence as the overall factor of culture, structural, administrative, bureaucracy as the overall managerial component, justice, commitment, effective interaction and communication, Serving as a general social factor; transparency, stability, executive guarantee as a general legal factor; economic development; congestion cost; macroeconomic indicators (growth, inflation, stagnation), the role of revenue in the budget as a general economic factor; Power, Citizenship, Oversight, Control and Supervision, Good Governance as General Political and Electronic Tax, Electronic Security, Services and Advice The tetronics are categorized as generic.

In this regard, the results of the research are based on the findings of the research, the proudness of the system (2015), Ghiasi of New Zealand (Citizenship Education and Taxation Education 2017), Kawaja et al., 2011; Hamidi et al. 2015; Ramshini, Mahmoud, Jamshidi, Naser and Gholamhossein Asadi (2012), Azimi (2012), Kasipilai et al., 2003, Raymond et al. (2013), Salehi et al. (2014), Almasi et al. (2014) Alabeda et al. (2012), Chen, Jabindawa, Capistrano and Yen, 2015, and Dawi, Mohammad Reza and Rahimi Asl, Reza, 2014, Jannati and Co-workers of 2016, Katrina Ganges, Eva Huffman and Erich Krichler 2015, Krichler et al., 2016 are aligned.

The fourth part of the research: What are the educational needs for educating citizen citizenship for participation in tax payments? To answer this question and determine the gap between the current situation and the desired situation, the factors affecting popular participation in tax payment have been used by paired t-test. In this method, the observed average of each agent is compared to the situation with their desired status. The results of Table 6 show that the difference between the mean of the desired situation and the status quo in all factors influencing the public participation in paying taxes is significant at the error level of  $\alpha = 0.05$  ( $p < 0.05$ ), so according to The average of all factors in the current situation is less favorable, with 95% confidence it can be stated that all factors require training.

In this regard, the officials of the Taxation, Educational, Cultural Organization, etc. should cooperate with each other and use the above-mentioned factors to provide them with a platform for participation.



Bass trains the attention of citizens and other community members as well, this can be in the form of general education, which increases trust, awareness, commitment, and so on, including tax laws, accounting, Etc., in classical, official or informal way, to educate citizens especially the champions so as to promote popular participation in tax payments.

## References

- Abdi, Ramezanali, Kashif, Hamidreza. (2014). A Study on the Development of Public Participation Development Strategies with NAJA in the Plan for Promoting Social Security, *Journal of Social Security Studies*, No. 44, Winter 2014.
- Al-Hujran, O., Al-Debei, M.M., Chatfield, A. & Migdadi, M. (2015). The imperative of influencing citizen attitude toward e-government adoption and use, *Computers in Human Behavior*, 53:189-203
- Amali A, Zomorodian M, Bahadori M. (2006). Assessing the impact of public confidence in how taxes on tax compliance apply (with an emphasis on local tax allocation). Tax and Taxation Bureau, Collection of Articles of the First Conference on Financial Policies.
- Amiri, Maryam, Yousefi, Hamidreza, Bloki Paleh Shahi, Mohammad. (2014). The Role of Mediating Individual Factors in Relationship Between the Factors Affecting the Increasing Inclination to Self-Declare Taxes on Real Individuals, *Abstract Articles of the 10th Conference on Tax and Finance of Iran*, Tehran.
- Andrews, R. and Mycock, Citizenship education (2007)., A -in the UK: Divergence within a multi-national state, .88-73. pp ,1. No ,3.
- Arab Mazar, Abbas, Zayer, Ayat. (2008). Estimating the Economic Potential of Taxes in Iran, *Journal of Tax & Tax Research*, New Year, Sixth Edition, No. 92, pp. 18-12.
- Arab Mazar, Ali Akbar, Golmohammadi, Maryam and Behrooz Bagheri.(2011). Tax compliance level, the most important indicator of achieving a desirable and efficient tax system, *Tax Revenue Review*, No. 12, pp. 70-27.
- Asadullah Zadeh Bale, Mirrstmam. (2013). General Rules and Regulations of the State Tax Administration Organization
- Ashraf Nazari, Ali. (2015). Citizenship and Identity, Iranian Civilization Publication, 2015, Tehran.
- Asian Development Bank. (2014)."A Comparative Analysis of Tax Administration in Asia and the Pacific, April, 2014.
- Chegini, Soheila, Shakeri, Mojtaba.(2015). Presentation of a Model for Accepting Taxes Online Payments (Case Study: Qazvin Province), *Proceedings of the 9th Iranian Tax and Taxation Conference*.p. 353
- Chen, J.V., Jubilado, R., Capistrano, E. & Yen, D. (2015). Factors affecting online
- Dehghan Manshadi, Fatemeh, Roshan, Abdolreza. (2015). A Model for the Analysis of Cultural Factors Affecting the Taxation (Examining the Role of Corruption, Cultural Norms and Social Values on Tax Adjustment), *Proceedings of the 9th Conference on Financial Policies and Taxation of Iran*. p. 353.
- Ehteshami, Sadegh and Abdi, Faezeh. (2015). "Promoting Tax Culture and Its Influence on the Tax System", *Abstract of the Articles of the 10th Iranian Tax and Taxation Conference*, Tehran.
- Elke Loeffler,Tony Bovaird. (2017)."The Palgrae Handbook of Public Administration and Management in Europ ". pp 403-423/ cite as, from participation to co-production: widening and Deepening the Contributions of Citizens to Public Services and OUTCOMES.
- Ezatollah Kishani Farahani, Mohsen Farmahini Farahani, Akbar Rahnema, *The Essential Components of Islamic Citizenship Education*, 2013, National Studies Schedule, 56, Fourteen, No. 4,2013).
- Fakhari, Hossein, Ramezani, Ali Akbar, Ebrahimi, Mehdi (2010), "Impact study"
- Fayad, R. & Paper, D. (2015). The technology acceptance model E- commerce extension: a conceptual framework, *Procedia Economics and Finance*, 26: 1000-1006.
- Furton Kia, Shahrooz, Rezaoodust, Karim, Porterkarouni, Mohammad, Heydari Burassi, Arsh.(2011). The role of the media in shaping the attitudes and behaviors, environmental of citizens (Case study: Ahvaz city center), *Media Seminar Book and Citizenship Education Article 9 And May 10*.
- Gangl, K., Hofmann, E., Pollai, M., & Kirchler, E. (2012). The dynamics of power and trust in the "Slippery Slope Framework" and its impact on the tax climate.SSRN working paper. "http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2024946". Retrieved 06.12 from SSRN.

- Heidari, Mohammad Hossein, Narimani, Mohammad, ..., Kamal. (2013). "Principles of Education Based on Civic Values Based on Islam", Research Institute of Humanities and Social Studies, seventh year, No. 76. in *Human Behavior*, 43: 251-262.
- Iran Manesh, Mohammad Reza. (2015). *Citizen's Concept (Concepts, Components, Principles, Fields and Patterns, Moosereh View, Tehran.*
- Jannati, Nader, Mir Mohammadi, Seyyed Mohammad. (2017). A review of the experience of reforming the tax system in Iran and the world, with emphasis on the modernization of the tax system, *Journal of Taxation Research*, Vol. 22, No. 31.
- Kastlunger, B. Lozza, E., Kirchler, E. & Schabmann, A. (2013). Powerful authorities and trusting citizens: The Slippery Slope Framework and tax compliance in Italy, *Journal of Economic Psychology*, No 34, 36-45.
- Katharina Gangl, Eva Hofmann, Erich Kirchler.(2015). "Tax authorities' interaction with taxpayers: A conception of compliance in social dilemmas by power and trust" University of Vienna, Faculty of Psychology, Austria,
- Khan, S.& Swapan,M.S.H .(2013).From Blueprint Master Plans to Democratic Planning in South Asian Cities: Pursuing Good Governance Agenda against Prevalent Patron-client Networks.Habitat International,38,pp.183-191
- Mahdi Moradi, Amin Rostami, Reza Taghizadeh. (2016). "Investigating into Determinants of Tax Evasion with Focusing on Cultural Factors" *Journal of tax Research*, Volume 21, Number 18.
- Mahdi Salehi , Saeed Parvizifard , Mastoureh Ostovar.(2014). " The Study of Cultural Factors' Effects on Tax Compliance in Iran, *Journal of tax Research*, Volume 22, Number 23 (12-2014).
- Margaret M. Sefora. (2017). Public Participation in Parliamat ,Perspetives on Social Med.a.Technology(SMT).By Margaret M. Sefora. "Study Preseted in Partial Fulfilment of the requirements for the degree master's in public Administration in the faculty of Economic and management sciences as Stellenbosch university.
- OECD. (2011). *Tax Administration in OECD and Selected Non-OECD Countries: Comparative Information Series (2010)*
- Pickhardt, Michael and Aloys Prinz.(2014). Behavioral Dynamics of Tax Evasion- A Survey", *Journal of Economic Psychology*, Vol.40:1-19.
- Pickhardt,Michael and Aloys Prnz.(2014)."Behavioral Dynamics of Tax Evasion-ASurvey",*Journal of Economic Psychology*, Vol.40:1-19
- Retain. (2016), *International Journal of Political Science and Development*, Vol,701,40(1). pp.16.
- Richardson, G. (2006). Determinants of Tax Evasion: A Cross-country Investigation, *Journal of International Accounting, Auditing and Taxation*, No. 15, PP. 150-169.
- Romance. (2014). *Citizenship Education, Citizenship Rights and Life Skills in Schools, Emphasizing the Necessity and Importance of Education,*
- Rumina, U.A., Balandina, A.S. & Bannova, K.A. (2015). Evaluating the effectiveness of tax incentives in order to create a modern tax mechanism innovation development, *Social and Behavioral Sciences*, 166: 156-160
- Sabri Baghaei, Azarakhsh and Naderi Mohammadzadeh Asl. (2003). "Understanding Different Aspects of Tax Effectiveness in Iranian Economy", *Economic Research*, No. 8: 198-173.
- Sadeghi, Kamal. (2012). in examining the effect of the index of corruption control and the government's effectiveness on tax revenues: A case study of countries with average and high per capita income, concluded that real per capita income has a positive and significant relationship with tax revenues.
- Saeedi, Parviz .(2002). *Tax accounting. Islamic Azad University. second edition.*
- Saeedi, Rezvani, Navid, Ansari, Mohammad Hosein, Tohidlou, Vahid.(2016). "Review and presentation of community-based empowerment strategies with emphasis on popular participation in the organization

- and empowerment of worn-out tissues and informal settlements (Case study: Shiraz, Kermanshah, Winsendag) "Seven Cities,
- Samadi, Ali Hossein, Marzban, Hussein, Sajjadian Fard, Najmeh. (2014). tax evasion, effective tax rates and economic growth in Iran: An Indeterminate Growth Pattern, Proceedings, Eighth Iranian Tax and Taxation Conference.
- Samadi, Mansour and Nazariyan, Mohammad. (2013). Examining and Assessing the Satisfaction of Taxpayers (Case Study of Tehran Tax Administration, Journal of Taxation Research, No. 17, Spring 2013).
- Sandro Casal, Christoph Kogler, Luigi Mittone, Erich Kirchler.(2016). Tax compliance depends on voice of taxpayers, Journal of Economic Psychology 56 (2016) 141–150.
- Shafei, Reza, Ravad, Seyyed Arman. (2016). "Compliance of Real and Legal Taxes Customers with Emphasis on Ethnic and Local Cultures (A Study in the Provinces of the West of the Country)", Abstract of the Articles of the Tenth Conference on Financial and Tax Policies Iran, Tehran.
- Shahnazi, Ruhollah, Ahmadi, Vahid. (2016). "Simulation of the Impact of the Tax Plan on Tax Fugation", Abstract of the Articles of the 10th Iranian Tax and Taxation Conference, Tehran.
- Shahrokhi, Mohammad Hosein, Taebi Amir Hossein, Berkam, Yasir.(2015). The Effect of Tax Crimes on Increasing Taxes in the Value Added Tax System "A Case Study of the Great Taxpayers of Kerman Province", Proceedings of the 9th Iranian Tax and Taxation Conference, 9, p. 1269).
- Shakouri, Ali.(1390). Social Participation and Support Organizations (with emphasis on Iran), Organization for the Study and Compilation of Humanities Books of Universities (position), Human Sciences Research and Development Center.
- State Tax Administration. (2013). Operational Program 2013, Office of Research and Improvement Processes, Office of Administrative Affairs and Support.
- Sue lewis,Sandra Delgado, E Wayne Ross,Edda Sant.(2018).The palgrave Handbook of Global Citizenship and Education pp 227-243 'Justic and Global Citizenship Education '.12,January 2018.
- Tahseen, A,Eatzaz,A.(2010).The Effect of Corruption and Governance on Tax Revenues, The Pakistan Development Review,49:4 part2,405-417.
- Taliban Nia, Power of God, Vakili-Fard Hamid Reza, Arab Mazar, Ali Akbar and Samadi Lograni, Mahmoud. (2011). "The Impact of Tax Reporting on Transparency of Financial Reporting", Journal of Financial Accounting, No. 9.
- World bank. (2015). "Doing Business 2015, Going beyond efficiency", World Bank Group,2015.
- Yasmin Khodary. (2016). "Public Participation in Public Policy, Case Studies on Egypts Right to information Draft Low and National Plan, Yasmin Khodary.