



Research Paper

Presenting a Model of Tax Non-Compliance in Iran Based on the Analytical Network Process

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ABSTRACT

In the realm of corporate tax behavior, corporate governance mechanisms exert influence over the behavior of managers, playing a crucial role in shaping and overseeing their actions. The board, responsible for resource allocation, performance improvement, and enhancement of shareholder wealth, holds a central position in determining tax management strategies. Consequently, companies with distinct governance structures may adopt different approaches to tax management, indicating that corporate governance mechanisms can impact corporate tax activities. To evaluate the relative importance of identified criteria, the network analysis process method was employed. This method aims to structure the decision-making process within a scenario influenced by multiple independent factors. Unlike the hierarchical analysis process, the network analysis process allows for relationships between all levels, rather than solely from higher to lower levels. By utilizing the conformity rate, the network analysis process calculates the inconsistency of all judgments, with the calculated inconsistency rate required to be below 10%. The compatibility coefficient of the final matrix serves as an indicator of questionnaire validity. Significant evidence suggests that increased tax requirements can enhance tax compliance. However, certain forms of tax offenses are sometimes utilized as a means to control the issue of tax default. Overall, this study sheds light on the impact of corporate governance mechanisms on corporate tax activities and utilizes the network analysis process to evaluate the importance of relevant criteria. The findings contribute to our understanding of the intricate relationship between governance, tax management, and compliance. The results can be valuable for practitioners, policymakers, and researchers interested in corporate tax behavior and governance dynamics.

1 Introduction

Today, taxes play a crucial role as one of the primary sources of government revenue, significantly impacting the economy of any country. Governments utilize various tax policies to achieve important

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objectives such as promoting social justice, ensuring proper income distribution, bridging the class divide within society, price stabilization, unemployment reduction, economic prosperity, and increased investment. Taxes serve as a manifestation of government sovereignty, closely linked to its authority and continuity. While governments possess means to monitor their budget and revenue sources, they often lack oversight of the provincial tax framework and are actively working to expand their regulatory control. Establishing an effective and efficient tax system is unquestionably necessary for successful taxation and the realization of macro-level government goals.

Adam Smith, the renowned classical school economist, identified four principles of justice, tax certainty, tax accessibility and savings, and fair distribution of the tax burden. These principles, along with clear tax construction, tax optimization, and explaining the conditions for individuals' satisfaction in tax collection, form the foundation of an ideal tax system. According to Adam Smith, a favorable tax system should prioritize the contentment of taxpayers. A crucial aspect of taxpayer satisfaction relates to tax compliance, which is analogous to measuring net profit in the private sector. Both serve as summary indicators of an organization's operational efficiency and effectiveness [1-7].

In contrast to tax compliance, non-compliance by taxpayers presents a significant issue. It is important to note that tax avoidance and tax evasion represent different forms of disobedience. Tax evasion involves illegal actions, such as concealing income, manipulating accounting records, bribery, and even intimidation, while tax avoidance utilizes legal loopholes within tax laws to minimize tax liabilities. Tax avoidance is generally visible as it operates within certain limits of allowable tax benefits, with limited restrictive legislation to control it [13]. Tax evasion, on the other hand, encompasses a broader range of illicit practices, including tax avoidance, duplication, embezzlement, and evasion [4-6, 8-12]. Recent studies shed light on factors influencing tax compliance. For instance, a 2019 study by John et al. at Oxford University titled "How to Improve Tax Compliance" reveals that simplifying communication between taxpayers and tax administration enhances compliance. Deterrent messages also have a positive impact on tax compliance, while tax ethics and spirit do not directly contribute to compliance improvement. Other factors such as tax offenses, trust in tax officials, and tax audits also influence tax compliance. Similarly, a study conducted by Francesca et al. at the University of Portra in 2019 demonstrates that tax offenses and trust in tax officials moderately affect tax compliance, whereas tax audits significantly influence compliance. The behavior of taxpayers with respect to tax laws spans a wide range, varying from compliance to non-compliance [4-6, 8-12].

Measuring the precise extent of tax evasion in Iran faces challenges, primarily due to the limitations in employing direct measurement methods caused by the lack of disclosure of tax evasion and the confidentiality of necessary information [15-19]. Furthermore, tax evasion is determined based on court opinions. The complexity and ambiguity surrounding tax evasion activities, coupled with reduced financial reporting transparency, create opportunities for managers to profit [20]. This situation raises concerns regarding representation, as the interests of shareholders and managers may not align with tax risks. Shareholders often expect managers or board members to act in their best interest by maximizing profits through reduced tax liabilities. However, the agency problem arises from the separation of ownership and management, leading to tax decisions influenced by the personal interests of managers rather than shareholders. This can manifest in various forms, ranging from profit manipulation and misappropriation to excessive managerial compensation [21, 22]. Information asymmetry between managers and tax officials also incurs significant agency costs, as managers seek to minimize tax expenses while the tax office aims to maximize public funds. AbdulWahab et al. suggests that companies often cultivate close relationships with the government and politicians to gain advantages such as market access privileges, tax breaks, easier credit access, and government subsidies [25]. This type of economic context, characterized by relationships and connections, is referred to as relationship-based economics. In Iran,

political relationships hold multiple dimensions, particularly due to the involvement of managers and major owners of companies, which impacts the country's economy and economic system, known as the state economy [22]. According to the political economy perspective, significant shareholders and managers with political affiliations influence the financial performance of their companies, potentially affecting the quality of accounting information. Despite the lack of empirical evidence on the role of political affiliation in tax avoidance and evasion, it presents an opportunity to expand the existing literature [25].

Within the realm of corporate tax behavior, corporate governance mechanisms play a crucial role in shaping and monitoring the conduct of managers. The board, responsible for resource allocation, performance enhancement, and shareholder wealth maximization, holds a central position in determining tax management strategies. Consequently, companies with different governance structures may adopt diverse approaches to tax management. Thus, it can be argued that corporate governance mechanisms have the potential to influence corporate tax activities. Moreover, these mechanisms can impact the relationship between political affiliation and tax avoidance and evasion, offering two perspectives. The substitutability view suggests that corporate governance alone cannot diminish the influence of political communication on tax avoidance and duplication; it only substitutes agency costs associated with political communication. Conversely, the complementary perspective posits that corporate governance reduces the impact of political affiliation on the increase of tax avoidance and evasion [25]. The corporate tax rate serves as an indicator of funds exiting the company and being allocated to the government, which could otherwise be utilized for investment projects, fostering value creation for the company. Consequently, companies constantly seek to minimize cash outflows through the implementation of various tax policies [19]. Furthermore, as governments strive to reduce their dependence on oil revenues and bolster tax income to strengthen the economy, the importance of identifying factors that influence taxes becomes increasingly apparent [8].

In conclusion, taxes hold significant importance as a primary revenue source for governments, shaping the economy of any country. Establishing an effective and efficient tax system is crucial for achieving macro-level government goals, such as social justice, income distribution, price stabilization, and economic prosperity. Tax compliance, an integral aspect of taxpayer satisfaction, plays a vital role in measuring the efficiency and effectiveness of tax administration. Differentiating between tax compliance and non-compliance, including tax avoidance and tax evasion, highlights the need for effective measures and policies to promote compliance. Factors such as communication between taxpayers and tax administration, deterrent messages, tax offenses, trust in tax officials, and tax audits all contribute to taxpayer compliance. However, accurately measuring tax evasion in Iran remains challenging due to limitations in direct measurement methods and confidentiality issues. The interplay between political affiliation, corporate governance mechanisms, and tax behavior adds complexity to the landscape of tax avoidance and evasion. Understanding these dynamics is crucial for developing effective tax policies and promoting a fair and transparent tax system.

2 Theoretical literature and research background

2.1 Lack of tax compliance

The behavior of taxpayers in the form of tax planning is a wide range from compliance to non-compliance (Etemadi et al., [4]) Taxpayer tax compliance is one of the most important issues related to taxation. Determining the level of taxpayer compliance for the tax administration is the same as measuring net profit in the private sector. Because both are summary indicators of the efficiency and effectiveness of the organization's operations. Identifying areas where tax compliance is low or non-compliant is part

of the process of allocating scarce resources in order to achieve maximum efficiency and effectiveness. In the tax literature, tax compliance is considered the most important goal of an efficient and effective tax system [3]. Registration in the tax system, timely preparation, and submission of tax returns, maintenance and submission of documents required by tax authorities, and timely payment of taxes are classified; If a taxpayer does not fulfill any of his duties and obligations, his behavior will be considered as a kind of tax non-compliance [23-28].

There are several definitions of tax non-compliance. The legal opinion is the responsibility of the company but is not reported or paid. Hence, this term is equivalent to tax avoidance (Etemadi et al., [4]). Failure to comply with the tax is a violation of the laws and legal obligations of taxpayers in the three stages of tax assessment, collection, and enforcement, which include various acts such as citing fake documents, concealing income and economic activity, and failure to provide certificates and reports to tax officials. They can be considered as behaviors in the direction of tax non-compliance [3]. In Baker's theory of deterrence [31], it is assumed that taxpayers, in order to maximize their expected utility, engage in tax non-compliance, which derives from the benefits of success in tax fraud against the expected risk and tax penalties. Aid [21] self-tax evasion includes a wide range of tax avoidance, duplication, embezzlement, and evasion (Etemadi et al., [4]) that is the law of direct taxes, there is no clear definition of these concepts. Empirical studies in the field of taxation such as [26-29] have not provided the same definition of concepts such as tax avoidance and evasion. Tax risk is different for the four tax concepts mentioned; Because this concept reflects the company's ability to maintain a stable tax situation over time and is defined as uncertainty about the payment of taxes along with related fines in the future. Levels of tax risk vary both in terms of prosecution and in terms of financial effects (Etemadi et al., [4]). And there is no tax audacity. Definitions and terms used in this regard vary according to circumstances and communities. Taxation is one of the most important tools that governments use to influence economic variables such as economic growth, inflation and unemployment, and resource allocation. In most countries, especially developed countries, taxes are the main source of government funding and are very important for government spending, but in developing countries, due to the inflationary structure and inefficiency of the tax system, tax revenues.

It forms a small percentage of the GDP of these countries [10,45-48]. Iran, as one of the developing countries, due to the lack of transparency and inability of the tax system to properly identify the income of companies and individuals, the amount of tax assessment by tax auditors is generally small and often significantly different from the actual tax rate [30-35]. The need to discuss taxes becomes even greater when we know that according to the country's 20-year vision document, by the end of the Fifth and Sixth Economic Development Plans, the government should be able to cover its current expenditures from non-oil revenues, which are mainly tax revenues. This is while the statistics show that tax revenues constitute a low share of the country's revenue sources [15]. Hence, the government should seek to increase its tax revenues; In this regard, the importance of studies related to taxes and factors affecting government tax revenues is becoming more and more apparent. However, companies usually try to avoid paying taxes by using legal solutions such as tax avoidance or illegal ones such as tax evasion [8]. A conceptual distinction between tax evasion and tax evasion relates to the legality or illegality of taxpayers' behavior. Tax evasion is a violation of the law. When a taxpayer refuses to provide a proper report on his or her taxable income from work or capital, he or she commits an informal, illegal act that he or she sees in the eyes of government and tax authorities [36-39]. In tax avoidance, one does not have to worry about his actions being disclosed because tax avoidance stems from legal loopholes in tax law. Here, in order to reduce the ability to pay their taxes, a person looks for ways to avoid paying or postponing them [40-41]. Therefore, recognizing the causes of the occurrence and intensification of this category and providing scientific-practical solutions and suggestions, especially in relation to tax

avoidance that is formed through legal channels and its detection is far more difficult than tax evasion, is a matter of avoidance [15].

Various factors can affect companies' tax avoidance behaviors. One of the most important factors is the personality and behavior of managers, which has been proposed in the form of financial-behavioral theories in the humanities [42-45]. In other words, some behavioral factors involved in the personality of managers will lead to their decision-making one of these identified factors is the phenomenon of narcissism among managers [46]. Narcissism is a significant psychological trait that is related to the decision-making behavior of managers and the consequences to the company [33]. Thus, the effect of personality on the behavior of managers on the one hand and the effect of managers' behavior on the performance and reports of the business unit, on the other hand, reveals the importance of the personality traits of managers in the form of financial-behavioral theory to take. Psychologists have come to the conclusion that people who are overconfident overestimate their chances of success owe their success to their abilities and underestimate the role of chance and external factors in this matter [47].

On the other hand, the wave of scandals and the collapse of the world's largest companies and institutions such as Enron, Worldcom and Arthurnderson, has led to the creation of new rules in the corporate governance structure of companies, the most important of which is the need for an audit committee in the structure. Has been a corporate leader. The audit committee is responsible for overseeing corporate governance, financial reporting process, internal and independent auditor performance, and as one of the subcommittees of the board of directors and an essential component in the structure of internal control effectiveness and through the process of ensuring the company's accountability. Supports investors. A review of tax avoidance research shows that in most studies, this action of managers is seen as a risky activity that negatively affects the transparency, honesty, social trust, value of the company as well as the quality of financial reporting [48-51].

The separation of managers and owners of the company causes managers to use tax avoidance activities and measures to access personal interests. Therefore, the main concern of shareholders is to find a combination of control mechanisms such as audit committees in companies in order to minimize agency costs [6]. Theoretical accounting literature, on the other hand, shows that the audit committee, as part of the corporate governance structure, is a tool to reduce agency costs and align the interests of managers and shareholders, as well as a means of effective oversight to improve agency relations [52-54]. Therefore, according to agency theory, the audit committee can be used as one of the corporate governance mechanisms using the regulatory process; Reduce tax avoidance abuse.

2.2 Background of foreign researches

Liu et al. [48] in a study examined the impact of gender diversity of managers on tax avoidance in the China Stock Exchange between 2009 and 2016. The results showed that companies with gender diversity had lower tax evasion rates than companies with all-male members of the board. Factors such as female CEO, and non-governmental ownership also strengthen the relationship. In general, the analysis showed that female managers, as rational economic factors, make tax decisions based on the exchange of costs and benefits associated with tax avoidance activities. In a study, Hsieh and Wang [57] examined the interactive role of audit committee characteristics in the relationship between managers' narcissism and tax avoidance in companies listed on the Spanish Stock Exchange. For this purpose, the data of 1303 companies were extracted and analyzed during the period 2008 to 2017. In this study, in order to measure tax avoidance, two criteria of effective tax rate and cash tax rate were used. The results showed that managers' narcissism increases tax avoidance, but the existence of a large audit committee and different gender diversity reduces the relationship, in other words, moderates the relationship between managers' narcissism and tax avoidance.

Kim et al. [47] in a study examined the moderating role of CEO narcissism on the relationship between tax avoidance and corporate social responsibility. They are used to measure the narcissism of managers from four indicators, namely, a) the prominence of the CEO's photo in the annual reports, b) the CEO's reputation in magazines, c) the salary and cash benefits of the CEO divided by the salary and benefits of the second-highest executive and d) the non-cash salary and benefits of the CEO, which are divided by the salary and benefits of the second highest-ranking executive of the company; Used. The findings showed that there is a negative and significant relationship between tax avoidance and social responsibility. Also, the narcissism of the CEO increases tax avoidance and intensifies the relationship between tax avoidance and social responsibility. Olsen et al. [50] in a study examined the interactive role of financial managers' narcissism on the relationship between CEO overconfidence and tax avoidance. The results of the research, used the information of 1848 companies from the period 2006 to 2017 on the Thai Stock Exchange. The results showed that there is a positive and significant relationship between CEO narcissism (overconfidence) and tax avoidance and this relationship is stronger and more intense in companies with narcissistic financial managers. Yogi et al. [59] in a study examined the relationship between the type of ownership and the characteristics of the audit committee with tax avoidance in the Australian Stock Exchange during the period from 2006 to 2015. The results of their research showed that there is no significant relationship between managerial and family owned as well as the characteristics of the audit committee and tax avoidance. Atwood et al. [29] in a study entitled the effect of CEO narcissism on corporate tax avoidance, using the indicators of CEO's photo prominence, CEO reputation and CEO salary, and cash and non-cash benefits used to measure narcissism, found that CEOs with narcissistic personalities are more likely to avoid taxes.

2.3 Background of internal research

Hosseini and Derakhshan [11] in a study examined the philosophical-economic analysis of the factors of taxpayers' disobedience and their prioritization. The results of this study show that the two factors of government corruption or people's demonic thinking about government and government service are known as the most effective arguments and factors of tax non-compliance. Haghghi Fashi et al. [12] in a study examined the effect of social and personal norms on tax compliance. Findings indicate support for the indirect effect of social factors on tax compliance. Social norms have an indirect effect on tax compliance through internalization through personal and psychological norms. Thus, as the power of social norms increases in favor of tax compliance, so do the personal and psychological norms of tax compliance, and this leads to our next increase in compliance objectives.

The results of this study provide useful information about the social factors affecting tax compliance to its users and can be used by the tax administration is planning to develop cheaper and more effective solutions to increase taxpayer compliance. Rezaei et al. [14] in a study investigated the relationship between the effectiveness of the audit committee and the extent of corporate tax avoidance and studied the moderating effect of business strategy according to its two criteria, namely cost leadership and differentiation, on this relationship. For this purpose, to measure the company's tax avoidance, three criteria of tax book difference, effective tax rate, and effective cash flow tax rate were used, as well as two criteria of cost leadership strategy and differentiation strategy to measure business strategy. The research hypothesis was tested using a sample consisting of 470 years - listed companies on the Tehran Stock Exchange from the years 2013 to 2017 and using the structural equation modeling approach. The findings indicated that the effectiveness of the audit committee reduces the company's tax evasion. In addition, the results showed that business strategy moderates the negative relationship between the effectiveness of the audit committee and corporate tax avoidance.

Barzideh and Ebrahimi Dardeh [9] in a study examined the ranking of behavioral factors affecting non-compliance with business income tax from the perspective of experts. Findings indicate that among the main indicators, norms (social and individual) have the highest importance and among the sub-indices of attitude, norms and perceived behavioral control, respectively, information asymmetry, main model behavior and third party reporting, respectively. They have no tax compliance. Mojtahedzade et al. [20] in a study examined the prospective analysis of tax evasion detection of VAT taxpayers using classification and clustering algorithms. In this study, based on the information contained in the tax returns of VAT payers in the study years 2004-2014, which have been audited by the Tax Affairs Organization and K-Nearest Neighbor and Decision Tree methods, Naive Bayes data mining including classification algorithms and K-means and K-medoids clustering algorithms predicted taxpayer tax evasion, then with using the Silhouette index, the obtained results were validated. These results can be organized assist the country's tax authorities in planning to detect tax evasion. Barzegar et al. [6] in a study examined the underground economy and tax evasion in the framework of stochastic dynamic general equilibrium models. The results show that a positive momentum of formal sector productivity increases formal production and reduces the underground economy, and consequently reduces tax evasion and increases government revenue, but on the contrary, a positive momentum of underground sector productivity reduces formal birth, increased underground production, followed by increased tax evasion and reduced government revenues.

3 Psychology

3.1 Data collection and analysis

As presented in the article above, in the meta-combination phase of theoretical-deductive analysis, the first step is multi-ground theory. The purpose of this step is to determine the valid, reliable, and relevant documents in a timely manner. For this purpose, articles, books, and websites of reputable foreign and domestic organizations were reviewed. The first step is to combine research questions based on what and who based on the dimensions of data foundation theory. In the second step, the researcher systematically searches for articles published in various and reputable domestic and foreign scientific journals, as well as public sources and websites of reputable foreign and domestic organizations with the aim of determining valid, credible, and relevant documents in a timely manner. First, the related keywords were examined individually or in combination in Persian and English between 2011 and 2020, and for Latin articles from 1980 to 2021, and finally, 27 articles were found. In the third step of the search process, the researcher considers various parameters such as title, abstract, content, article details (author name, year), etc., and removes articles that are not appropriate to the research question and purpose. Also, the criteria for accepting and rejecting studies include language studies, study period, study conditions, study community, and type of study.

Considering these conditions, 26 articles were selected in order to identify the pattern of tax non-compliance. Based on the critical appraisal method, this research enters the fourth stage, ie extracting textual information. This evaluation method is considered a critical criterion for determining the methodological quality of the studies performed, which examines the research in terms of ten characteristics. In this method, through the 10 criteria mentioned below and with the help of 5 panel members in the qualitative section, the components related to the improvement of research variables are determined. This method is a 50-point scale in which the researcher, based on the scoring system, removes any article that is lower than 30 points. This program is an indicator that helps the researcher to determine the accuracy, validity, and importance of qualitative research studies. Therefore, first, the relevant research in the previous stage should be identified using the scoring method based on Table 1 and then the components

related to the theoretical central categories of the foundation data in the field of tax non-compliance should be identified.

Table 1: Critical evaluation of research

Categories of data foundation theory	Reference	research goals	The logic of the research method	Research design	sampling	Data collection	Reflexivity	Ethical considerations	Accuracy of analysis	Theoretical and clear expression of findings	Value of the research	Total
The main phenomenon	[8,11]	4	5	5	5	3	4	3	4	5	5	43
	[7,9,13]	4	4	5	4	5	4	5	5	4	5	45
	[1-3]	3	2	3	4	3	3	2	2	3	3	28
	[4]	4	5	4	4	3	4	4	3	5	4	39
	[35,41-45]	3	3	4	3	3	3	4	3	4	3	33
	[12-17]	4	3	3	3	4	4	4	4	4	5	38
	[53-58]	4	3	3	3	3	4	3	4	4	5	36
Cause conditions	[57-59]	5	5	4	5	4	4	5	4	5	4	45
	[21-25]	5	5	4	5	5	5	5	4	5	4	47
	[19-21]	5	5	4	5	5	4	5	4	5	4	46
	[15-18]	5	4	3	4	3	4	3	4	4	5	39
	[25]	4	4	3	4	3	4	3	4	4	4	37
	[7]	4	4	5	4	3	3	3	4	5	4	39
	[9,10]	4	4	3	4	3	3	4	4	3	4	36
Underlying and intervening conditions	[15]	5	4	4	4	5	4	5	5	4	5	45
	[51-53]	4	3	4	3	4	5	3	4	3	5	38
	[19]	4	5	4	4	3	4	3	4	5	4	40
	[11]	4	3	4	4	3	4	3	4	5	4	38
	[23]	4	3	3	4	3	4	4	3	3	4	35
	[39-42]	3	2	3	4	4	3	3	4	3	4	33
	[44]	4	3	4	4	3	4	3	4	4	3	36
Solutions and consequences	[36-39]	4	3	3	4	3	4	4	3	3	3	35
	[12]	3	4	3	4	4	3	3	4	3	4	35
	[15-17]	4	3	4	4	3	4	4	3	3	4	36
	[11,34]	5	4	4	3	4	4	5	4	5	4	42

Table 1: Critical evaluation of research

Categories of data foundation theory	Reference	research goals	The logic of the research method	Research design	sampling	Data collection	Reflexivity	Ethical considerations	Accuracy of analysis	Theoretical and clear expression of findings	Value of the research	Total
	[17]	4	5	4	4	5	4	4	5	4	4	43
	[5]	4	3	4	4	3	4	3	4	5	4	40

3.2 Findings and content analysis

In this step of the meta-combination, the findings from the previous steps are presented. According to Shannon's entropy method, the level of support of previous research from the findings of this research is as follows

The main purpose of this study is to "provide a model of tax non-compliance in Iran" in which the researcher seeks to achieve the following detailed objectives:

- Determining a set of effective criteria and indicators for the pattern of tax non-compliance in Iran
- Determining the importance of each of the effective criteria and indicators

In order to achieve the weight of the identified criteria, the network analysis process method was used. This method was developed by Saati in 1971 with the aim of structuring the decision-making process according to a scenario affected by multiple independent factors. This technique improves the hierarchical analysis process as a multi-criteria decision-making tool by replacing "hierarchy" with "network". In this method, there can be a relationship between all levels, while in the method of hierarchical analysis process, this relationship could only be from high levels to low levels. The method of the network analysis process, such as the hierarchical analysis process, calculates the inconsistency of all judgments by the conformity rate, and the calculated inconsistency rate must be less than 10%. The compatibility coefficient of the final matrix shows the validity of the questionnaire. In order to analyze the data, Super Decision 1.6.0 software developed by Thomas L. Saati, the inventor of this method, as well as MS Excel 2019 software were used.

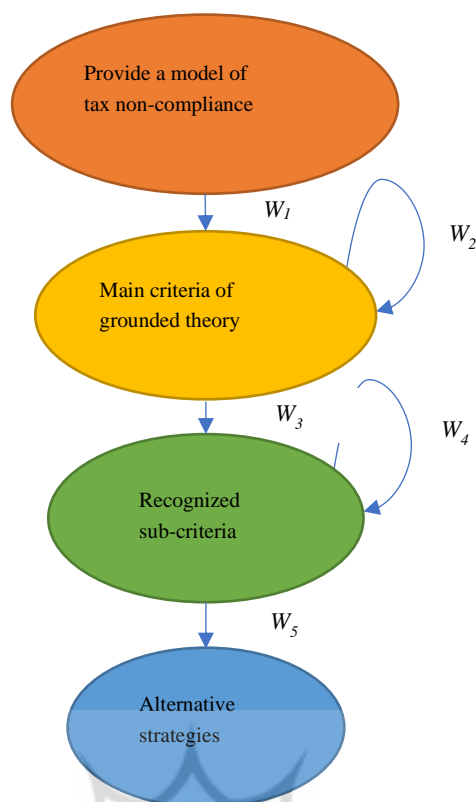


Fig. 1: Network structure of the tax non-compliance model

4 Findings

In order to achieve the research findings, the following algorithm was used:

In the first step, by studying the research literature in the field of tax non-compliance in Iran and interviewing experts, the criteria affecting tax non-compliance are identified and then identified into six categories (causal conditions, main phenomenon), Intervention factors, contextual conditions, approaches, consequences) were categorized. In the second step, after identifying the criteria affecting the phenomenon of tax non-compliance in Iran, first by studying the research literature, some dependencies were identified, and then, in order to complete this, the possible relationships between the factors were examined by experts in the statistical community. Finally, internal and external relationships were identified as the final dependencies. In the third step, after identifying the criteria and sub-criteria and determining the dependencies between them; Effective criteria were entered in the Super Decision software to prepare everything to continue working and perform pairwise comparisons.

Fig. 1 shows the network structure of the tax non-compliance model. In the case of hierarchical networks, it is shown with two internal dependencies. Here, the factors identified in the multi-ground stage are sub-criteria and alternatives in the criteria, respectively, and at the same time, the criteria and sub-criteria have an internal relationship, which is also shown in Table 2.

Table 2: Conceptual network model and incompatibility rates of different levels

Goal	Main Criteria	Main-criteria's inconsistency rate	Sub-criteria	Sub-criteria inconsistency rate	Alternatives	Alternatives' inconsistency rate
Providing a model of tax avoidance in Iran	Cause Conditions	0.02543	Social and individual anomalies	0.01488	Alignment with conventional norms	0.01269
					Understand the loss of respect for the original pattern	
					Prohibition theory	
					Taxpayers are at risk	
			Complexity and ambiguity in the rules		Increase the possibility of interpretation to the vote	0.0062
					Existence of escape routes in tax laws	
					Unnecessary by-laws and directives	
					Inconsistency of the circular with other laws and the legal system of the country	
			Non-exchange of information and identification of potential tax sources		Inability to detect unrealistic exchanges and data	0.01719
					Lack of communication between Modi and Momayez	
					Administrative bureaucracy and dysfunctional organizational structure	
					Technological inability to correctly identify and register taxpayers	
Lack of social capital	The tax system is considered unfair	0.02904				

Table 2: Conceptual network model and incompatibility rates of different levels

Goal	Main Criteria	Main-criteria's inconsistency rate	Sub-criteria	Sub-criteria inconsistency rate	Alternatives	Alternatives' inconsistency rate				
					Existence of large class distances between different strata	0.01359				
					Lack of proper understanding of the necessity of tax and its role in the economy					
					Lack of stability, security and social welfare					
					Do not degrade the social status of tax evaders					
			Economic Criteria				Existence of a strong underground economy and smuggling			
			Incorrect audit based on compliance							
			Weak cash flow monitoring							
			Financial pressure of taxpayers							
			The main phenomenon				Earnings management through optional accruals	0.00407	Increase over the number of years and annual leave of staff	0.02306
									Apply rewards and formal work to staff in offices	
					Exercising reserves in excess of Article 38 of Social Security					

Table 2: Conceptual network model and incompatibility rates of different levels

Goal	Main Criteria	Main-criteria's inconsistency rate	Sub-criteria	Sub-criteria inconsistency rate	Alternatives	Alternatives' inconsistency rate
					To spend the transfer expenses to future periods, in the current period such as insurance prepayments	
					Transfer of incomes from the current period to the future period if the employer is not registered in the Article 169 tax system	
					Transfer of future period expenses to the current period (accounting)	
			Transition pricing		Existence of areas called tax havens in the country	0.01919
					Management of different parts of the company in a decentralized manner	
					Transfer of goods and services to branches in areas with performance tax exemptions	
					Difference in pricing rates of goods and services to affiliates and subsidiaries	0.01604
			Criminal activity		Tax lobbying	
					Failure to provide the necessary information to the tax officer	
					Citing forged documents	
					Refusal to file a tax return	

Table 2: Conceptual network model and incompatibility rates of different levels

Goal	Main Criteria	Main-criteria's inconsistency rate	Sub-criteria	Sub-criteria inconsistency rate	Alternatives	Alternatives' inconsistency rate			
			Computer violations	0.04349	Use the economic code of other companies	0.00753			
					Concluding formal contracts				
					Delete or change the input information in order to cheat.				
					Eliminate or replace fake output reports with original output reports.				
					Creating incorrect information in the main files				
					Provide fictitious computer instructions and programs to tax assessors.				
	Interfering conditions			Recognize and understand the problem	0.04349	Lack of comparative studies and review of countries' experiences	0.0197		
						Lack of accurate knowledge of tax laws			
						Lack of role of cultural and civic institutions in the development of tax culture			
						Information asymmetry			
						Tax policies		Conflict of interest in influential groups	0.02138
								Politicization and superficiality in passing laws	

Table 2: Conceptual network model and incompatibility rates of different levels

Goal	Main Criteria	Main-criteria's inconsistency rate	Sub-criteria	Sub-criteria inconsistency rate	Alternatives	Alternatives' inconsistency rate		
					Lack of comprehensiveness of tax policies	0.01534		
					Conflict of tax laws with each other			
			Execution stage		Complexity of taxpayers' activities			
					Lack of efficient manpower			
					Multiple shifts of tax managers			
					Low level of literacy of taxpayers			
	Back-ground conditions			Economic Factors	0.01267	Government economic policies	0.01624	
						Combining government revenue in the budget		
						Inflation		
						International Impacts		
				Interest rate				
				Social Factors		Perceived justice of the tax system		0.00753
						The rate of financial and administrative corruption		
						The extent to which different classes of society benefit from public spending		
Trust in the authorities and tax officials								

Table 2: Conceptual network model and incompatibility rates of different levels

Goal	Main Criteria	Main-criteria's inconsistency rate	Sub-criteria	Sub-criteria inconsistency rate	Alternatives	Alternatives' inconsistency rate	
			Political factors		The degree of people's participation in decisions	0.01515	
					Government transparency and accountability		
					Income and tax transparency of government officials		
					Social trust in politicians		
			Gender		0.00355		
			Level of Education				
	Age of taxpayers						
	Strategies			Improving the level of social responsibility	0.02562	Increasing the spirit of participation in the economic development of the country	0.01532
						Efforts to improve the quality of manpower	
						Increase the spirit of interaction with external stakeholders	
						Investing in infrastructure and public services	
				Improving the level of tax culture		Mechanize tax processes	0.02108
Informing about the redistribution of tax revenues							
Educate people about tax laws and regulations							

Table 2: Conceptual network model and incompatibility rates of different levels

Goal	Main Criteria	Main-criteria's inconsistency rate	Sub-criteria	Sub-criteria inconsistency rate	Alternatives	Alternatives' inconsistency rate			
					Simplification and clarification of tax law texts				
					Good behavior of tax staff				
					Increase justice and organizational function				
			religion		Belief in life after death		0.00835		
					Belief in Zakat and Khums				
					Belief in eradicating poverty through the distribution of wealth				
			Economic deterrents		Belief in God and doing righteous deeds		0.02869		
					Criminal tax offenses				
					Tax audit				
					Administrative performance guarantees				
			Factors affecting efficiency and effectiveness		Tax rates		0.00835		
					Third party monitoring				
					Utilization of information and communication technology				
			outcomes		Increase tax revenues		0.00691	Reduce tax evasion	0.01828
								Facilitate the implementation of new types of taxes	
Identification of new tax payers									

Table 2: Conceptual network model and incompatibility rates of different levels

Goal	Main Criteria	Main-criteria's inconsistency rate	Sub-criteria	Sub-criteria inconsistency rate	Alternatives	Alternatives' inconsistency rate
					Accelerate the process of recognizing and receiving claims	
			Reduce operating costs of operations		Spread the culture of self-expression	0.02036
					Optimal resource allocation	
					Delegation of authority	
					Outsourcing	
					Increase efficiency and productivity in performing assigned tasks	
			Increase the satisfaction of stakeholders		Reengineering of organizational processes	0.0253
					Establish tax justice	
					Dissemination of tax culture	
					Upgrading the level of service to taxpayers	
					Implementation of an integrated tax system	

Step 4: Forming a matrix of pairwise comparisons and priority vectors of criteria with the approach: ANP

Based on the identified criteria, a questionnaire of pairwise comparisons was prepared and experts in this field were asked to state the relative importance of the factors in relation to each other. The relative importance of the criteria was measured in two parts, one was the relative importance of the criteria in relation to the main purpose and the other was the relative importance of the criteria in relation to the relationships between them. It should be noted that the questionnaire was distributed among 18 people. (0.1 or 10%) and there was no need to re-complete the questionnaires and the reliability of the questionnaire was also confirmed by the incompatibility rate. After ensuring the consistency of the decision matrices, first, the group matrix was obtained using the obtained geometric mean, normalized and then using the arithmetic mean method, the weight vector related to the criteria and the dependence between them were calculated.

Step 5: Formation of the supermatrix and the share of each of the criteria in the total score:

To provide general rankings, it is necessary to make connections between clusters. The structure of this connection (internal, external, and reciprocal) forms the primary hypermatrix. The unweighted supermatrix is created by adding the internal priorities (significance coefficients) to the elements and clusters of the original supermatrix. Then the weighted supermatrix is multiplied by the values of the unweighted supermatrix. Then the cluster matrix is calculated. It should be noted that the general form of the supermatrix used in this study is in accordance with Figure 1, and the vectors W_{21} and W_{32} are weighted by the vector vectors of the criterion and subcriteria, and the equations are equal to the equations W_{22} and W_{33} .

$$\begin{array}{l} \text{Goal} \\ \text{Main Criteria} \\ \text{Sub - Criteria} \\ \text{Alternatives} \end{array} \begin{bmatrix} 0 & 0 & 0 & 0 \\ w_{21} & 0 & 0 & 0 \\ 0 & w_{32} & 0 & 0 \\ 0 & 0 & w_{43} & 1 \end{bmatrix}$$

By normalizing the weighted supermatrix, the supermatrix becomes columnar random. Finally, the finite hypermatrix is calculated by empowering all the elements of the gravitational matrix. Table 3 shows the rank of each of the criteria in comparison with other criteria in terms of importance.

Table 3: General priority of the main criteria and sub-criteria

Main Criteria	preferences	limit	Sub-criteria	preferences	limit	Alternatives	preferences	Total preferences	ideal	Total rank
Cause Conditions	0.353	0.107	Social and individual anomalies	0.093	0.011	Alignment with conventional norms	0.423	0.0038	0.0372	53
						Understand the loss of respect for the original pattern	0.18	0.0016	0.0158	80
						Prohibition theory	0.10	0.0009	0.0086	91
						Taxpayers are at risk	0.297	0.0027	0.0362	64
			Complexity and ambiguity in the rules	0.10	0.012	Increase the possibility of interpretation to the vote	0/478	0/0048	0/0473	44
						Existence of escape routes in tax laws	0/352	0/0036	0/0348	55

Table 3: General priority of the main criteria and sub-criteria

Main Criteria	preferences	limit	Sub-criteria	preferences	limit	Alternatives	preferences	Total preferences	ideal	Total rank
			Non-exchange of information and identification of potential tax sources	0.33	0.037	Unnecessary by-laws and directives	0/063	0/0006	0/0062	98
						Inconsistency of the circular with other laws and the legal system of the country	0/107	0/0011	0/0106	88
						Inability to detect unrealistic exchanges and data	0.067	0.0021	0.0207	70
						Lack of communication between Modi and Momayez	0.652	0.0206	0.2012	13
						Administrative bureaucracy and dysfunctional organizational structure	0.144	0.0046	0.0446	45
						Technological inability to correctly identify and register taxpayers	0.137	0.0043	0.0423	46
			Lack of social capital	0.188	0.021	The tax system is considered unfair	0.533	0.0097	0.0951	29
						Existence of large class distances between different strata	0/142	0/0026	0/0254	65
						Lack of proper understanding of the necessity of tax and its role in the economy	0/067	0/0012	0/0119	86

Table 3: General priority of the main criteria and sub-criteria

Main Criteria	preferences	limit	Sub-criteria	preferences	limit	Alternatives	preferences	Total preferences	ideal	Total rank			
						Lack of stability, security and social welfare	0/156	0/0029	0/0279	63			
						Do not degrade the social status of tax evaders	0/102	0/0019	0/0183	74			
			Economic Criteria	0.289	0.033				Existence of a strong underground economy and smuggling	0/074	0/0017	0/0163	77
									Incorrect audit based on compliance	0/164	0/0037	0/0361	54
									Weak cash flow monitoring	0/047	0/0011	0/0103	89
									Financial pressure of taxpayers	0/466	0/0105	0/1024	28
									Unlimited tax exemptions	0/062	0/0014	0/0135	85
									Improper tax system and tax violations	0/187	0/0042	0/0412	48
			The main phenomenon	0.298	0.091	Earnings management through optional accruals	0.59	0.072	Increase over the number of years and annual leave of staff	0/194	0/0475	0/4638	4
									Apply rewards and formal work to staff in offices	0/046	0/0112	0/1093	25
Exercising reserves in excess of Article 38 of Social Security	0/243	0/0595							0/5808	2			
To spend the transfer expenses to future periods,	0/036	0/0085							0/0830	33			

Table 3: General priority of the main criteria and sub-criteria

Main Criteria	preferences	limit	Sub-criteria	preferences	limit	Alternatives	preferences	Total preferences	ideal	Total rank			
						in the current period such as insurance prepayments and ...							
						Transfer of incomes from the current period to the future period if the employer is not registered in the Article 169 tax system	0/063	0/0153	0/1498	19			
						Transfer of future period expenses to the current period (accounting)	0/418	0/1025	1	1			
			Transition pricing	0,13	0.015				Existence of areas called tax havens in the country	0/562	0/0296	0/2888	9
									Management of different parts of the company in a decentralized manner	0/072	0/0038	0/0372	52
									Transfer of goods and services to branches in areas with performance tax exemptions	0/319	0/0168	0/1640	17
									Difference in pricing rates of goods and services to affiliates and subsidiaries	0/047	0/0025	0/0243	68
									Tax lobbying	0/317	0/0288	0/2808	10
						ti C	0.22	0.027					

Table 3: General priority of the main criteria and sub-criteria

Main Criteria	preferences	limit	Sub-criteria	preferences	limit	Alternatives	preferences	Total preferences	ideal	Total rank
				0.06	0.007	Failure to provide the necessary information to the tax officer	0/306	0/0277	0/2708	11
						Citing forged documents	0/184	0/0167	0/1630	18
						Refusal to file a tax return	0/047	0/0009	0/0086	90
						Use the economic code of other companies	0/027	0/0024	0/0237	69
						Concluding formal contracts	0/119	0/0108	0/1051	27
			Computer violations			Delete or change the input information in order to cheat.	0/527	0/0071	0/0691	36
						Eliminate or replace fake output reports with original output reports.	0/30	0/0040	0/0394	49
						Creating incorrect information in the main files	0/110	0/0015	0/0144	83
						Provide fictitious computer instructions and programs to tax assessors.	0/063	0/0008	0/0083	93
Interfering conditions	0.073	0.022	Recognize and understand the problem	0.24	0.010	Lack of comparative studies and review of countries' experiences	0/048	0/0017	0/0162	78
						Lack of accurate knowledge of tax laws	0/277	0/0096	0/0937	30

Table 3: General priority of the main criteria and sub-criteria

Main Criteria	preferences	limit	Sub-criteria	preferences	limit	Alternatives	preferences	Total preferences	ideal	Total rank					
				0.54	0.023	Lack of role of cultural and civic institutions in the development of tax culture	0/497	0/0173	0/1684	15					
						Information asymmetry	0/178	0/0062	0/0603	39					
			Tax policies			Conflict of interest in influential groups	0/592	0/0465	0/4536	5					
						Politicization and superficiality in passing laws	0/181	0/0142	0/1390	21					
						Lack of comprehensiveness of tax policies	0/065	0/0051	0/0499	41					
						Conflict of tax laws with each other	0/162	0/0127	0/1241	24					
			Execution stage			Complexity of taxpayers' activities	0/307	0/0050	0/0483	43					
						Lack of efficient manpower	0/482	0/0078	0/0758	35					
						Multiple shifts of tax managers	0/054	0/0009	0/0085	92					
						Low level of literacy of taxpayers	0/157	0/0025	0/0247	67					
			Background conditions			0.155	0.047	Economic Factors	0.25	0.021	Government economic policies	0/040	0/0014	0/0139	84
											Combining government revenue in the budget	0/426	0/0153	0/1489	20
Inflation	0/394	0/0141		0/1376	22										

Table 3: General priority of the main criteria and sub-criteria

Main Criteria	preferences	limit	Sub-criteria	preferences	limit	Alternatives	preferences	Total preferences	ideal	Total rank
						International Impacts	0/058	0/0021	0/0204	71
						Interest rate	0/082	0/0029	0/0288	62
			Social Factors	0.22	0.018	Perceived justice of the tax system	0/527	0/0334	0/3263	7
						The rate of financial and administrative corruption	0/063	0/0040	0/0390	50
						The extent to which different classes of society benefit from public spending	0/30	0/0191	0/1862	14
						Trust in the authorities and tax officials	0/110	0/0070	0/0680	37
			Political factors	0.366	0.03	The degree of people's participation in decisions	0/079	0/0083	0/0811	34
						Government transparency and accountability	0/33	0/0348	0/3393	6
						Income and tax transparency of government officials	0/542	0/0570	0/5569	3
						Social trust in politicians	0/048	0/0051	0/0496	42
			Demographic characteristics	0.164	0.014	Gender	0/648	0/0308	0/3002	8
						Level of Education	0/122	0/0058	0/0565	40
						Age of taxpayers	0/230	0/0109	0/1063	26

Table 3: General priority of the main criteria and sub-criteria

Main Criteria	preferences	limit	Sub-criteria	preferences	limit	Alternatives	preferences	Total preferences	ideal	Total rank			
Strategies	0.072	0.022	Improving the level of social responsibility	0.052	0.001	Increasing the spirit of participation in the economic development of the country	0/585	0/0012	0/0113	87			
						Efforts to improve the quality of manpower	0/257	0/0005	0/0050	99			
						Increase the spirit of interaction with external stakeholders	0/103	0/0002	0/0020	106			
						Investing in infrastructure and public services	0/055	0/0001	0/0011	107			
			Improving the level of tax culture	0.146	0.003				Mechanize tax processes	0/359	0/0039	0/0385	51
									Informing about the redistribution of tax revenues	0/283	0/0031	0/0303	61
									Educate people about tax laws and regulations	0/036	0/0004	0/0038	102
									Simplification and clarification of tax law texts	0/167	0/0018	0/0179	75
									Good behavior of tax staff	0/080	0/0009	0/0086	90
									Increase justice and organizational function	0/075	0/0008	0/0081	94
			religion	0.075	0.002				Belief in life after death	0/053	0/0003	0/0029	103
									Belief in Zakat and Khums	0/55	0/0032	0/0310	59

Table 3: General priority of the main criteria and sub-criteria

Main Criteria	preferences	limit	Sub-criteria	preferences	limit	Alternatives	preferences	Total preferences	ideal	Total rank			
						Belief in eradicating poverty through the distribution of wealth	0/265	0/0015	0/0149	82			
						Belief in God and doing righteous deeds	0/132	0/0008	0/0074	95			
			Economic deterrents	0.355	0.008			Criminal tax offenses	0/335	0/0091	0/0890	31	
								Tax audit	0/510	0/0139	0/1353	23	
								Administrative performance guarantees	0/061	0/0017	0/0161	79	
								Tax rates	0/094	0/0026	0/0251	66	
			Factors affecting efficiency and effectiveness	0.374	0.008			Third party monitoring	0/056	0/0016	0/0158	81	
								Utilization of information and communication technology	0/235	0/0067	0/0658	38	
								Increase the level of tax knowledge of auditors	0/593	0/0170	0/1658	16	
								Increase the budget of the Tax Administration	0/116	0/0033	0/0323	58	
			outcomes	0.049	0.015	Increase tax revenues	0.657	0.011	Reduce tax evasion	0/630	0/0239	0/2336	12
									Facilitate the implementation of new types of taxes	0/052	0/0020	0/0193	72
Identification of new tax payers	0/236	0/0090							0/0874	32			

Table 3: General priority of the main criteria and sub-criteria

Main Criteria	preferences	limit	Sub-criteria	preferences	limit	Alternatives	preferences	Total preferences	ideal	Total rank
			Reduce operating costs of operations	0.226	0.004	Accelerate the process of recognizing and receiving claims	0/083	0/0031	0/0307	60
						Spread the culture of self-expression	0/521	0/0034	0/0332	56
						Optimal resource allocation	0/261	0/0017	0/0167	76
						Delegation of authority	0/068	0/0004	0/0044	101
						Outsourcing	0/045	0/0003	0/0028	104
						Increase efficiency and productivity in performing assigned tasks	0/105	0/0007	0/0067	97
			Increase the satisfaction of stakeholders	0.117	0.002	Reengineering of organizational processes	0/040	0/0003	0/0027	105
						Establish tax justice	0/494	0/0033	0/0327	57
						Dissemination of tax culture	0/071	0/0005	0/0047	100
						Upgrading the level of service to taxpayers	0/105	0/0007	0/0069	96
						Implementation of an integrated tax system	0/291	0/0020	0/0193	73

5 Discussion and conclusion

Because the financial strength of any government depends on tax compliance or taxpayers' willingness to pay taxes [54-58], there are very different theories about the factors affecting tax compliance, tax

ethics, and tax non-compliance. Some of these theories have been proposed in the framework of neo-classical economic theory and some in the framework of behavioral economics theory. Some theories focus only on economic factors and some theories consider only qualitative, institutional, and behavioral factors. Others, in combination, cite both categories of factors as the most important factors influencing the behavior of taxpayers. Ethics makes sense when there is a power of choice. Conversely, when there is no power of choice, ethics can play no role in decision-making. If the commander-in-chief orders a soldier to be shot and if he disobeys the order, he becomes a victim, then the soldier has no moral responsibility to kill another person, because he did not have the power to choose. Using this example, it may be argued that paying taxes has no moral responsibility, because there is no choice; In other words, paying taxes is neither moral nor immoral. Paying taxes to the devil or an inefficient government is not immoral because there is no elective power.

Paying taxes to Nazi Germany during World War II is not immoral; Because there was no other choice. Also, American citizens have no choice but to pay taxes to their government, so financing the American war in the Middle East does not create moral responsibility for American payers. But this is not always the case, because sometimes you can evade taxes and run the risk of paying a fine for non-payment. Some researchers and thinkers believe that if a person has paid the fine for not paying taxes and already knows that there is no way to escape the fine if identified, then tax evasion is not immoral [56]. There is considerable evidence that increasing tax requirements can increase tax compliance, but typically some types of tax offenses are used as a tool to control the phenomenon of tax default. In some countries, severe penalties, including financial crimes and even imprisonment, are provided. Therefore, in addition to tax laws and regulations, there must be other factors affecting tax compliance. A full understanding of the difference in taxpayers' tax compliance behavior requires understanding the differences in taxpayers' attitudes toward this behavior and deciding on tax compliance. If we find that attitudes toward tax behavior are a function of cultural and social norms, we will see the need to consider and identify these norms as a desirable tool to increase tax compliance along with binding laws and regulations [11-15].

1- It is suggested that financial laws and regulations and accepted accounting principles should be firstly submitted in writing to the relevant authorities in order to act responsibly and respond to possible cases and deviations, and secondly, stronger control mechanisms to prevent Create possible deviations from these standards in organizations. On the other hand, forums. Accounting officials, both at home and abroad, should review these laws and regulations extensively and close any tax evasion through these principles. Also, the laws and regulations, and the bureaucratic system must be reviewed, so that the vast scope of government activities is reduced and the government has only the task of overseeing matters, in these circumstances. Intermediary and tasteful practices are reduced, corruption is reduced, and the tax system is based on meritocracy. The country's tax laws need to be revised in a specific time frame, for example, every 3 years. Because political, economic, social, and cultural changes affect it and the lack of these assessments can lead to tax evasion and over time lack of attention and revision as a culture, especially in countries around the world. Third place.

2- It is suggested that in a comprehensive investigation, the reasons for tax non-compliance be determined by the government, then the reasons for the difference between the declared tax and the diagnostic tax be determined, and under these conditions, the necessary solutions be used using the system of developed countries. Because the failure of governments to receive taxes on time, governments face serious problems in running the country.

3. The tax administration and auditors are advised to conduct further investigations into companies with political connections to the government; Because according to the research results, it is very likely that these companies will participate in tax avoidance and evasion activities.

- 4- The Tax Administration is advised to consider more tax penalties for companies that participate in tax avoidance and evasion activities so that these activities do not continue among companies.
5. The Tax Administration is advised to reduce the taxation process so that many taxpayers do not abuse the existing legal facilities and at least do not benefit from the benefits of late payment of taxes equal to the increase in inflation.
6. The Securities and Exchange Commission is advised to make regulations so that companies can disclose their political affiliation with the government.
7. Investors and individuals who intend to invest in companies are advised to pay attention to the political relationship of companies; Because these companies may engage in tax avoidance and evasion activities to reduce taxes; Although in the short run these activities will lead to a reduction in cash outflows, in the long run, with their discovery, the company will incur heavy costs. Especially imposed on minority shareholders.

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