
Impact of accountability on voluntary tax compliance through influencing taxpayers' public trust: a case study

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Abstract

Nowadays, being accountable or having effective accountability mechanisms is essential for success of any organization. This study aims at investigating the impact of tax system's accountability on improving taxpayers' voluntary tax compliance in tax offices in Mazandaran province of Iran. In the present study, a mixed research method is employed and as accountability is here taken as 'responsiveness', the Delphi technique is first used to identify the legitimate expectations and demands of the taxpayers. In the second step, 4 types of accountability mechanisms are identified as the components of overall accountability. In the third step, using partial least squares path modeling via Smart PLS software, the impact of tax system's accountability on public trust as well as the impact of public trust on voluntary tax compliance is tested. The variables of the research are also analyzed employing *one-sample t-test*. The obtained results indicate that tax system's accountability affects voluntary tax compliance through affecting taxpayers' public trust. Furthermore, in the case that the political accountability is not at the optimal level, the optimality of managerial and legal accountability does not have a significant impact on voluntary tax compliance. Finally, it is suggested that in order to achieve an overall accountability, more attention should be paid to the mechanisms of political accountability in the political sector and social accountability in both the political and administrative sectors of the tax system.

Keywords Accountability, Public trust, Voluntary tax compliance

Impacto da responsabilidade no cumprimento voluntário de impostos por meio da influência da confiança pública dos contribuintes: um estudo de caso

Resumo

Atualmente, ser responsável ou ter mecanismos eficazes de prestação de contas é essencial para o sucesso de qualquer organização. Este estudo tem como objetivo investigar o impacto da prestação de contas do sistema tributário na melhoria da conformidade tributária voluntária dos contribuintes em escritórios fiscais na província de Mazandaran, no Irã. No presente estudo, um método de pesquisa misto é empregado e, como a responsabilidade é tomada aqui como 'capacidade de resposta', a técnica Delphi é usada pela primeira vez para identificar as expectativas e demandas legítimas dos contribuintes. Na segunda etapa, 4 tipos de mecanismos de responsabilização são identificados como os componentes da responsabilização geral. Na terceira etapa, usando a modelagem parcial do caminho dos mínimos quadrados por meio do software Smart PLS, é testado o impacto da responsabilidade do sistema tributário na confiança pública, bem como o impacto da confiança pública na conformidade voluntária dos impostos. As variáveis da pesquisa também são analisadas utilizando o teste t de uma amostra. Os resultados obtidos indicam que a prestação de contas do sistema tributário afeta o cumprimento voluntário dos impostos, afetando a confiança pública dos contribuintes. Além disso, no caso de a responsabilidade política não estar no nível ideal, a otimização da responsabilidade administrativa e jurídica não tem um impacto significativo no cumprimento voluntário dos impostos. Por fim, sugere-se que, para alcançar uma responsabilidade geral, mais atenção seja dada aos mecanismos de responsabilidade política no

setor político e de responsabilidade social nos setores político e administrativo do sistema tributário.

Palavras-chaves: Responsabilidade; Confiança pública; Cumprimento voluntário de impostos

Accountability is a contested concept that, even though it is widely used in public administration, has failed to reach an unequivocal meaning (Brandsma and Schillemans, 2013). As a two-Dimensional concept, accountability carries two basic connotations: answerability, the obligation of public officials to inform about and to explain what they are doing; and enforcement, the capacity of accounting agencies to impose sanctions on power holders who have violated their public duties (Schedler, 1999). In contemporary political and scholarly discourse ‘accountability’ often serves as a conceptual umbrella that covers various other distinct concepts, such as transparency, equity, democracy, efficiency, responsiveness, responsibility and integrity. Such very broad conceptualisations of the concept make it very difficult to establish empirically whether an official or organization is subject to accountability, because each of the various elements needs extensive operationalisation itself and because the various elements cannot be measured along the same scale (Bovens, 2007). In this paper, accountability is taken as ‘responsiveness’. In this concept, ‘accountability’ is linked with the extent to which governments pursue the wishes or needs of their citizens (accountability as ‘responsiveness’) regard-less of whether they are induced to do so through processes of authoritative exchange and control (Mulgan, 2000). Responsiveness, in the context of public administration, is the perception by individual citizens of how public administration can include the demands of the citizen and how effectively public administration has succeeded in implementing these demands in their decisions (Rolle, 2017). In the present study, it has been assumed that responding to legitimate expectations and demands of taxpayers by accountability mechanisms in the tax system, through influencing taxpayers' public trust, affects their voluntary tax compliance.

Undeniably, the low level of voluntary tax compliance imposes many costs on the tax system to identify and assess taxable income and to claim and collect taxes. Current statistics indicate that there is a significant difference between the amount of the tax expressed in the tax returns of taxpayers and their assessed taxes. The field study also suggests that many taxpayers pay taxes reluctantly. They express criticisms about the amount of tax or how it is allocated. Also when due to non-compliance with applicable laws and regulations, they are required to pay tax fines, they complain about not knowing about such obligations. In fact, taxpayers have

legitimate expectations and demands and ask for responsiveness in some cases which is not in the sole discretion of a tax official at the operational level, for example it is in the area of authority of middle or top managers or policy makers, outside the tax administration. Therefore, in order to investigate the overall accountability, the main issue in this research is the development of a conceptual model in which, both the accountability of actors in the administrative sector of the tax system, including tax managers and other tax officials, and the accountability of tax policy makers who are actors in the political sector of the tax system, are taken into account. Other issues are the legitimate expectations and demands of taxpayers, accountability mechanisms needed to meet these legitimate expectations and demands, and ultimately the increase of voluntary tax compliance through improving taxpayers' public trust by overall accountability of the tax system. Accordingly, the research questions are developed as follows:

1. What are the legitimate expectations and demands of taxpayers from policy makers, tax managers, and other tax official?
2. What are the accountability mechanisms of policy makers, tax managers, and other tax official?
3. Does the accountability of the tax system have a positive impact on taxpayers' public trust?
4. Does the taxpayers' public trust in the tax system have a positive impact on their voluntary tax compliance?

2. Theoretical contributions

2.1 Accountability

According to Mulgan, over time, more elements have been classified as parts of accountability and this has caused accountability to become an ever-expanding concept (Mulgan, 2000). Bovens *distinguishes between two main concepts of accountability: accountability as a virtue and accountability as a mechanism*. In the former case, *accountability* is used primarily as a normative *concept*, as a set of standards for the evaluation of the behavior of public actors. Accountability or, more precisely, being accountable, is seen as a positive quality in organizations or officials (Bovens, 2010). Often, in this type of discourse, the adjective 'accountable' is used, as in: 'the public officials should be accountable', 'accountable governance', or 'government has to behave in an accountable manner' (Akpanuko and Asogwa, 2013). Koppell (2005) also categorized five

different dimensions of accountability as a virtue – transparency, liability, controllability, responsibility and responsiveness:

Table 1: Five Conceptions of Accountability

Conceptions of Accountability	Key Determination
transparency	Did the organization reveal the facts of its performance?
liability	Did the organization face consequences for its performance?
controllability	Did the organization do what the principle ordered?
responsibility	Did the organization follow the rules?
responsiveness	Did the organization fulfill expectations?

But as a mechanism, accountability is used in a narrower, descriptive sense. It is seen as an institutional relation or arrangement in which an actor can be held to account by a forum. Here, the locus of accountability studies is not the behavior of public agents, but the way in which these institutional arrangements operate (Bovens, 2010). In this sense, Bovens says accountability is a relationship between an actor and a forum, in which the actor has an obligation to explain and to justify his or her conduct, the forum can pose questions and pass judgment, and the actor may face consequences (Bovens, 2007).

Researchers have classified accountability as a mechanism in a variety of ways. Romzek & Dubnick (1994) classified accountability into four categories based on the source and degree of control in public agencies: bureaucratic, professional, legal and political. Sinclair categorized five forms of accountability: political, public, managerial, professional and personal (Sinclair, 1995). Bovens (2007) has categorized accountability as a mechanism based on: 1. the nature of the accountability forum. 2. the nature of the actor. 3. the nature of the conduct. 4. the nature of the obligation, as described in the table below:

Table 2: Types of Accountability

Based on the nature of the obligation	Based on the nature of the conduct	Based on the nature of the actor	Based on the nature of the forum
Vertical accountability Diagonal accountability Horizontal accountability	Financial accountability Procedural accountability Product accountability	Corporate accountability Hierarchical accountability Collective accountability Individual accountability	Political accountability Legal accountability Administrative accountability Professional accountability Social accountability

2.2 Public trust

Newton (2001) defined trust as the actor's belief that, at worst, others will not knowingly or willingly do him harm, and at best, that they will act in his interests (Newton, 2001). Sztompka (1999) defines trust as: the expectation that other people, or groups or institutions with whom we get into contact – interact, cooperate – will act in ways conducive to our well-being (Paliszkiwicz, 2011). Therefore, trust can be seen as a kind of expectation of positive outcomes that one party can derive from the expected action of the other party in an interaction whose main characteristic is mistrust. Accordingly, public trust means that the public, expects government officials and employees to respond to their expectations through their engagement with the public, in which there is a certain degree of uncertainty and lack of understanding about how public affairs works. In other words, public trust means the public's expectation of a positive response to their wishes from public officials (Alvani & Danaee Fard, 2001).

Studies also indicate that one of the most important factors creating distrust is “lack of accountability” (Danaee Fard & Anvary Rostamy, 2007). Accountability has the potential to increase the trust and commitment of stakeholders because it can prove an organization's effectiveness and demonstrate whom the organization represents (Lee, 2004). On the other hand, trust is claimed to be an important indicator of taxpayers' compliance behavior (Siahaan, 2013). Empirical researches suggest the positive impact of accountability on public trust. Van Craen & Skogan, (2015) tested the effects of responsiveness and fair treatment in accounting for citizen's trust in the Belgium Police. The research found that perceptions of police responsiveness are more influential than perceptions of the way people are treated by the police in accounting for respondents' trust. Abuhasanein (2017) tested the impact of accountability elements on public trust in Palestinian authorities in Gaza Strip, from the authority's employees' perspectives. The results of the research indicated that the public trust in the Palestinian authorities was affected by accountability elements (Responsiveness, Responsibility, and Equity). Also, the results of the researches carried out by Khanbashi et al. (2011) and Shahbazi et al. (2012) indicate the positive impact of accountability on increasing the level of public trust in citizens.

2.3 Voluntary tax compliance

Tax compliance represents a social dilemma in which the short-term self-interest to minimize tax payments is at odds with the collective long-term interest to provide sufficient tax

funds for public goods (Gangl et al., 2015). In the literature on tax compliance, two different approaches are identifiable. The researches have indicated that tax compliance is attributable to the factors which are economic or social-psychological (Muehlbacher et al., 2011). The economic approach to tax compliance (Becker, 1968; Allingham & Sandmo, 1972) assumes that the threat of sanctions (i.e. fines) shapes taxpayers' behavior. Here a rational individual is viewed as maximizing the expected utility of the tax evasion gamble, by weighing the benefits of successful cheating against the risky prospect of detection and punishment. Through this process, an outcome is reached where the individual pays taxes because he or she is afraid of getting caught and penalized if he or she does not report all income (Torgler, 2011). On the other hand, in social-psychological or behavioral approach, the researchers have considered examining taxpayers' inner motivations, beliefs, perceptions, attitudes in order to accurately predict taxpayers' behavior (Batrancea et al., 2012). One of the most important socio-psychological factors that shape voluntary tax compliance is taxpayers' trust in authorities (Feld & Frey, 2002; Torgler, 2003; Frey & Torgler, 2007; Wahl et al., 2010; Van Dijke & Verboon, 2010). The need to examine the issue of voluntary tax compliance as a subset of the broader body of knowledge on tax compliance as emerged, motivated by the inadequacies of the prevailing orthodoxies on tax compliance to capture the proportion of total compliance not accounted for by economic models (Modugu, 2012).

Feld and Frey (2002) conclude in their research that there is an implicit psychological contract between taxpayers and tax authorities in Switzerland. This holds in particular if voters are directly involved in political decision-making. The psychological contract is based on a relationship of trust. Frey and Torgler (2007) also explored the relationship between vertical trust (trust between taxpayers and the state). They concluded that trust in the state may influence the willingness to pay taxes but it is not necessarily related to conditional cooperation among the citizens. Van Dijke & Verboon (2008) conclude that high trust in authorities forms an important boundary condition to the effectiveness of procedural fairness as a tool to enhance tax compliance. Also, the results of the research carried out by Wahl et al. (2010) indicate that trust and power positively influence tax payments. Trust increases and power decreases voluntary compliance, whereas power increases and trust decreases enforced compliance.

3. Methods

Researchers, by examining theoretical foundations and empirical researches, developed theoretical framework of the research as follows (Figure 1).

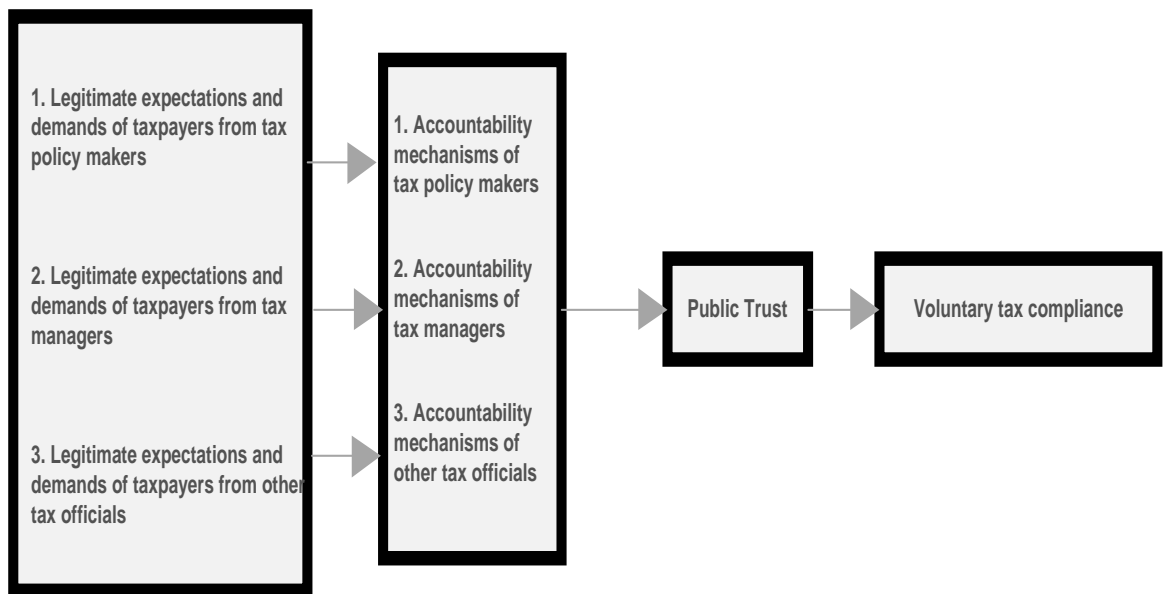


Figure 1: The theoretical framework

In the theoretical framework of the research, it has been assumed that responding to legitimate expectations and demands of taxpayers by accountability mechanisms of policy makers, tax managers and other tax officials in the tax system, through influencing taxpayers' public trust, affects their voluntary tax compliance. In the theoretical framework, the legitimate expectations and demands of policy makers, tax managers and other tax officials were not identified, as well as a variety of accountability mechanisms for responding to these expectations and demands; thus, Delphi technique was used to identify them. In accordance with these legitimate expectations and demands, also four political, managerial, legal and social accountability mechanisms were selected using the classification of Bovens' accountability Types (2007) based on the nature of the accountability forum, and according to the literature of the subject, the following operational definitions were made:

Political accountability: refers to accountability of elected representatives to voters. In fact, elected representatives in parliament or other legislative institutions are policy makers who, because of establishing laws and regulations for solving public issues - For example establishing laws on tax rates or allocation of collected taxes, etc. in the tax system- must be held accountable to voters during the election.

Managerial accountability: Refers to the accountability of managers and staff of the public administration who are under formal obligation to render account about their "performance" to

their superiors. In fact, managers and employees of the public sector implement the laws enacted by public policy makers.

Legal accountability: refers to the accountability of public managers and staff who are under formal obligation to render account to administrative or judicial courts in relation to the observance and enforcement of laws.

Social accountability: refers to the accountability of policy makers, public managers and staff about their performance to the public at large or at least to clients, interest groups, associations of clients, media, and so on. In this type of accountability, the actors are not under formal obligation to render account and account-holders lack the possibility of sanctioning them.

Finally, in order to answer the research questions, the following conceptual model was developed as figure 2.

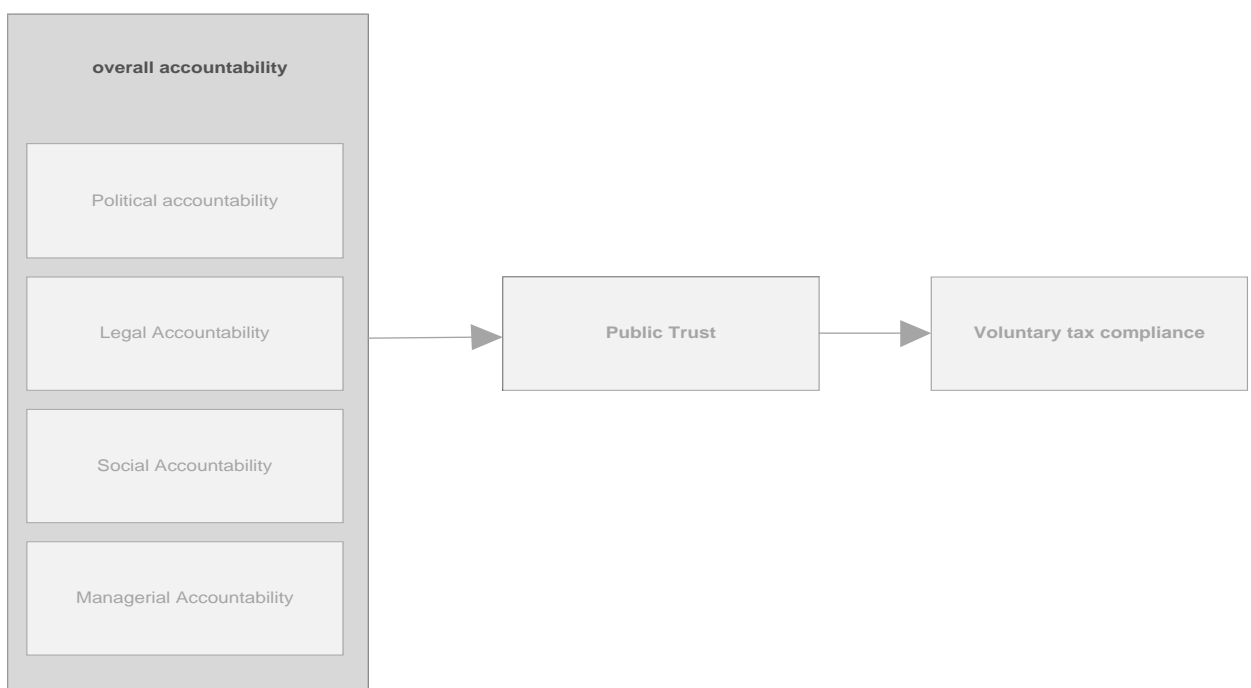


Figure 2: The conceptual model

The data of this research was collected from February 2018 to June 2018. The statistical population comprises of 26500 individual business taxpayers in tax offices in Mazandaran province of Iran and 379 of them were chosen as the sample size using Cochran's formula with an alpha level of .05. A total of 334 useable questionnaires were used, out of the 379 questionnaires that were distributed. Since the present study is a mixed type, the researchers incorporate methods of collecting or analyzing data from the quantitative and qualitative

research approaches in a single research study. Qualitative research builds its premises on inductive, rather than deductive reasoning. That is, researchers collect or analyze not only numerical data, which is customary for quantitative research, but also narrative data, which is the norm for qualitative research in order to address the research question(s) defined for a particular research study (Williams, 2007). In the first step, in order to collect qualitative data, the legitimate expectations and demands of taxpayers from policy makers, tax managers and other tax officials were identified. Data collection was conducted through semi-structured interviews and 3 *open-ended questions* -the first question of the research- in three phases. Then, by carefully examining the theoretical foundations and analysis of the collected data, various types of accountability mechanisms in the tax system were identified to meet the legitimate expectations and demands of taxpayers. Then, based on the conceptual model of the research and the collected qualitative data, measurement tool - a questionnaire - was constructed. In the second step, in order to test the conceptual model, quantitative data was collected through descriptive-survey research methodology on the impact of accountability on public trust and also, on the impact public trust on voluntary compliance of taxpayers. Made questionnaire was used to measure the variables in the research and the respondents were asked to evaluate the selected variables in a five point Likert scale. To ensure content validity, a thorough review of the literature on the subject of the research was conducted. The questionnaire was also pilot tested by having a panel of experts (professors and tax experts) review it, after which necessary changes were made to improve both the content and clarity of the questionnaire. Average variance of the variables was also extracted to calculate Convergent validity. Internal consistency was calculated using Cronbach's alpha and composite reliability. 30 questionnaires were distributed twice with the interval of 10 days between the taxpayers of different clusters and using the SPSS software, the Cronbach's alpha coefficient was calculated. In the qualitative section of this research, the data collected using the Delphi technique, was analyzed inductively and by direct reference to the data, so that the researchers reached some sort of final summing up. First, the data were grouped into distinct classes and eventually these data were grouped as the required information for answering the first and second questions of the study. Also, in the quantitative part of the research, partial least squares path modeling was used by Smart PLS software to examine the measurement and structural models and the hypothesis test. In this section, all the statistical operations performed on the questionnaire, were presented in the form

of a categorization. Student's t-test and SPSS software were used to examine the status of model variables.

4. Findings

Findings gathered about the first question of the research, with a thorough examination of the research literature, was analyzed and then classified into four categories, described in Table (3):

Table 3: The legitimate expectations and demands of taxpayers from policy makers, tax managers, and other tax official.

Expectations and demands regarding setting rules and regulations
Compilation of fair and appropriate tax rates in line with economic conditions
Allocation of tax revenues to increase welfare
The fair allocation of tax revenues to different classes of society
Not wasting tax revenues and not assigning tax revenues to other countries
Compilation of simple and proper rules for identifying, detecting and collecting taxes
Expectations and demands regarding the implementation of laws and regulations
Proper and flexible implementation of tax laws and regulations
Not implementing tax laws and regulations arbitrarily
Non-discrimination in identifying, detecting and collecting taxes
Expectations and demands regarding the effectiveness of the tax system
Reducing the cost of taxpayers when doing tax assignments
Providing facilities and ease of doing tax duties
Not wasting taxpayers' time and not postponing tax services
Social expectations and demands
Informing about tax revenues allocation
Informing about tax payers' legal rights and duties
Training tax laws and regulations
Guiding taxpayers when complying with their duties
Observing ethical principles and respect for the taxpayers
establishing an appropriate mechanism for linking taxpayers with managers, tax officials and policy makers

By analyzing the findings of the first question and the research literature, using the classification of Bovens' accountability Types (2007), four types of political, managerial, legal, and social accountability mechanisms were identified based on the nature of the accountability forum, as described in Table (4).

Table 4: Mechanisms of the accountability process in the tax system

Accountability mechanisms of tax policy makers
Political accountability
Social accountability
Accountability mechanisms of tax managers
Legal accountability
Managerial Accountability
Social accountability
Accountability mechanisms of other tax officials
Legal accountability
Managerial Accountability
Social accountability

To test the proposed research model, data analyses for both the measurement and structural model were performed using Partial Least Squares (PLS). PLS analyzes structural equation models, including measurement and structural models with multi-item variables that contain direct, indirect, and interaction effects (Chin, 1998). The combined analysis of the measurement and the structural model enables measurement errors of the observed variables to be analyzed as an integral part of the model, and factor analysis to be combined in one operation with hypothesis testing (Gefen et al., 2000).

Measurement model assessment

To assess the measurement model, average variance extracted and the composite reliability have been used. Table (5) shows the significance of the average variance extracted, the composite reliability scores and Cronbach's alpha of the main variables of the research:

Table 5: Average variance extracted, Composite reliability and Cronbach's alpha

Variables	Average variance extracted	Composite > 0.7 reliability	Alpha
accountability	0.503	0.795	.752
public trust	0.560	0.819	.746
voluntary tax compliance	0.647	0.784	.761

AVE should be greater than 0.5 to be considered adequate (Fornell & Larcker, 1981). The average variance extracted can be used to evaluate convergent validity. All Average Variance Extracted (AVE) values of constructs were higher than 0.50, the suggested minimum. This indicates convergent validity among variables. The Cronbach reliability coefficients of all variables were higher than the minimum cutoff score of 0.70 (Nunnally, 1978). In contrast to Cronbach's alpha, which implicitly assumes that each item carries the same weight, composite reliability relies on the actual loadings to construct the factor score and is thus a better measure of internal consistency (Fornell & Larcker, 1981). All composite reliabilities of constructs had a value higher than 0.7, indicating adequate internal consistency (Nunnally, 1978) which shows the appropriateness of the research instrument and acceptable measurement model fit.

Structural model assessment

After the construct measures in measurement model were confirmed as reliable and valid, the next step is to assess the structural model results. This step involves examining the model's predictive capabilities and the relationships between the constructs. To assess the structural model, criteria checked are R² and Q², T-statistic value and Path coefficient.

Table 6: R2 and Q2 values of dependent variables

Dependent construct	Q2	Inference	R2	Inference
Public trust	0.746	High predictive relevance	0.749	High predictive accuracy
Voluntary tax Compliance	0.859	High predictive relevance	0.863	High predictive accuracy

In PLS path models, the squared correlation values of 0.67, 0.33 and 0.19 are considered as substantial, moderate and weak respectively (Chin 1998). The R2 value of each latent endogenous construct as shown in table 6 is greater than 0.67 and the values are considered to be substantial. The quality of partial least squares path model is evaluated by calculating Q2 statistics. It is the capability of the model to predict by repeating the observed values by the model itself through blind folding procedures (Tenenhaus et al 2005). Q2 greater than zero means the model has predictive relevance and less than zero means the model lacks predictive relevance. Values of 0.02, 0.15, and 0.35 indicate that an exogenous construct has a small, medium, or large predictive relevance for a selected endogenous construct. Accordingly, the Q2 value of as shown in table 6 indicates the path model's predictive relevance for dependent constructs.

Test of the third and fourth questions of the research

In this section, Path analysis and levels of significance are used in assessing the hypothesised associations of the research. The path coefficients represent the expected change in the endogenous construct for a unit change in a predictor construct. For assessing the significance of the hypothesis, the non-parametric bootstrapping procedure is used (Chin, 1998). The results of PLS provide student's t-test to be performed for the significance of the path coefficients. Using a two-tailed t-test with a significance level of 5%, the path coefficient will be significant if the t-value is larger than 1.96 (Chin, 1998). To answer the third and fourth questions of the research, first, the impact of the overall tax system's accountability on public trust and then the impact of public trust on voluntary tax compliance were tested.

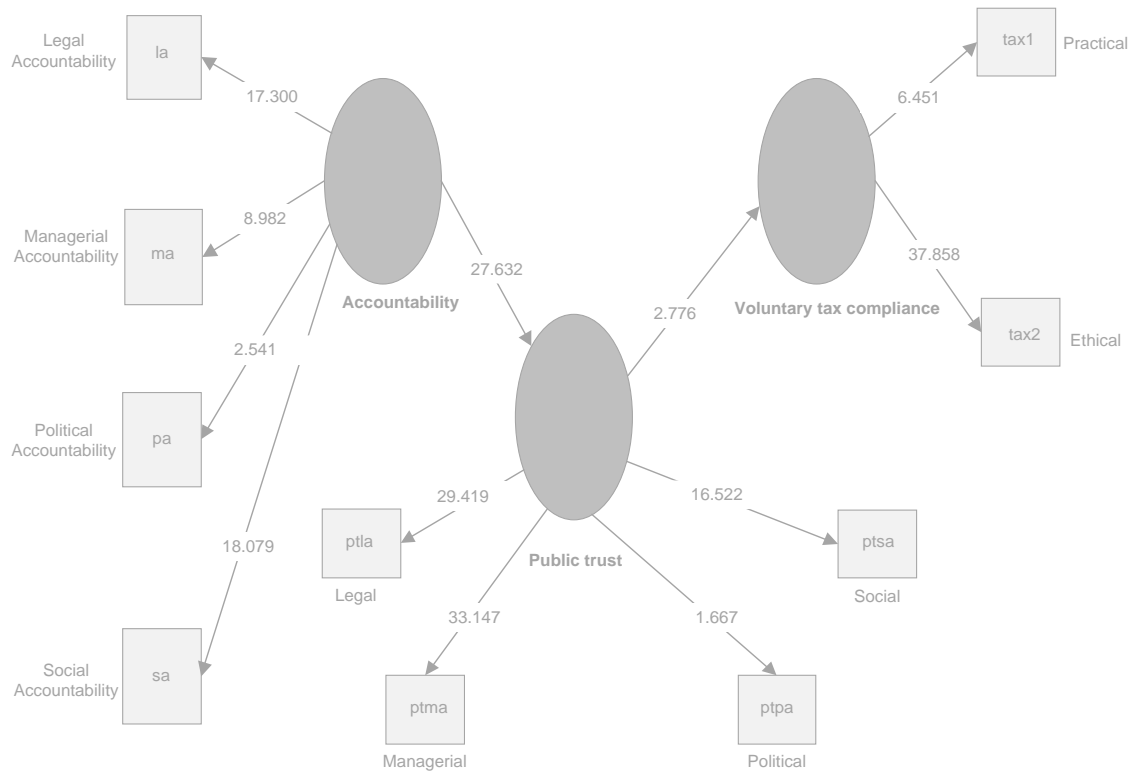


Figure 3: t-value

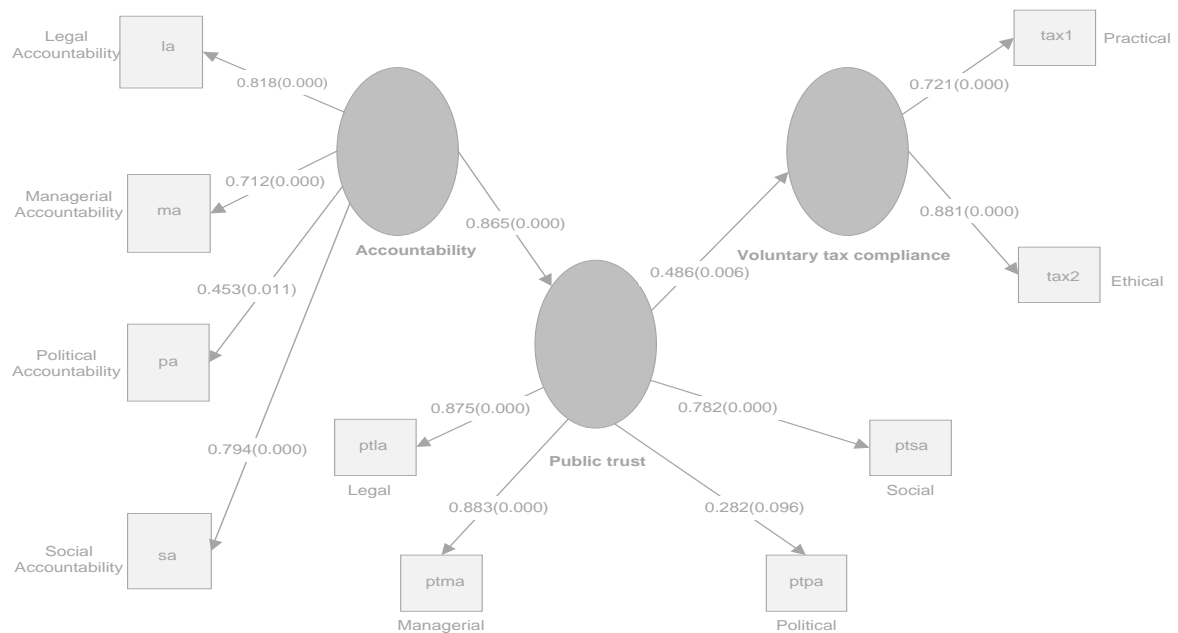


Figure 4: path coeficiente

Table 7: Results of path coefficients and t-value

From Variable	To Variable	T- value	Path coefficient	Inference
accountability	public trust	27.632	0.865	Significant
public trust	voluntary tax compliance	2.776	0.486	Significant

Findings of the research about the impact of overall tax system's accountability on public trust, with the results of Partial Least Square shows that, with respect to the path coefficient value 0.865 and T- Value 27.632, the overall tax system's accountability has a positive impact on public trust and there is a high correlation between these two variables. Findings about the impact of public trust on voluntary tax compliance, with the results of Partial Least Square shows that, with respect to the path coefficient value 0.486 and T- Value 2.776, public trust has a positive impact on voluntary tax compliance and there is a moderate *correlation* between these two variables.

In order to more accurately explain the variables of the model, the impact of each of the political, managerial, legal and social accountability mechanisms on the corresponding political, managerial, legal and social dimensions of public trust was tested. The T- Values (27.23), (19.863), (19.153), (24.070) respectively show the positive impact of each of the political, legal, managerial, and social accountability mechanisms of the tax system on its corresponding dimension in public trust and the path coefficient values obtained, respectively, indicate a high correlation between each of the political, legal, managerial and social accountability mechanisms of the tax system and its corresponding dimension in public trust (0.892), (0.840), (0.800) (0.842). Also the T- Value and the path coefficient (20.438), (0.621) respectively indicate the positive impact of the political dimension of public trust on voluntary tax compliance and a high *correlation* between independent and dependent variable. The T- Value and the path coefficient (5.890), (0.261) respectively indicate the positive impact of the social dimension of public trust on voluntary tax compliance and a weak *correlation* between these two variables. Also T- Values (0.976), (0.888) respectively indicate that the managerial and legal dimensions of public trust have insignificant *impact* on voluntary tax compliance.

Status of the research variables

To study the status of each variable in the research, one sample T-Test was used. According to the intended range of responses, the test value was considered as 3. If the average of replies in each of the variables is more than 3, the status of the variable will be at optimal

level. Also a confidence level of 95% was chosen. If the absolute value of the calculated statistics has a value equal to or greater than the critical value, then the null hypotheses, H_0 should be rejected and the alternate hypotheses, H_1 is assumed to be correct.

According to the *t-statistics* values, the managerial accountability at (8.735) and legal accountability at (4.224) were greater than the obtained critical value at 1.645, thus the null hypotheses, H_0 was rejected and this means these two variables are at optimal level. Also, according to the *t-statistics* values, political accountability at (-20.220) and social accountability at (-9.695) were not greater than the obtained critical value at 1.645, thus the null hypotheses, H_0 was not rejected and this means these two variables are not at optimal level. The findings also indicate that the *t-statistics* value of overall accountability of tax system at (-2.026) was not greater than the obtained critical value at 1.645, thus the null hypotheses, H_0 was not rejected and this means this variable is not optimal. The findings indicate that the *t-statistics* value of public trust at (-1.724) was not greater than the obtained critical value at 1.645, thus the null hypotheses, H_0 was not rejected and this means in general this variable is not optimal. Also, according to *t-statistics* values, the political and social dimensions of public trust at (-22.349) and (-12.361), were not greater than the obtained critical value at 1.645, thus the null hypotheses, H_0 was not rejected and this means these two variables are not optimal. The *t-statistics* values of managerial and legal dimensions of public trust at (10.296) and (5.212) were greater than the obtained critical value at 1.645, thus the null hypotheses, H_0 was rejected and this means these two variables were optimal. The findings also indicate that the *t-statistics* value of voluntary tax compliance at (-17.810) was not greater than the obtained critical value at 1.645, thus, the null hypotheses, H_0 was not rejected and this means that this variable is not optimal.

5. Discussion and Conclusion

This study aims at investigating the impact of tax system's accountability on improving taxpayers' voluntary tax compliance in tax offices in Mazandaran province of Iran. Thus, the authors have divided the tax system into two "political" and "administrative" sectors. The political sector of the tax system includes tax policy makers who are outside the tax administration and the administrative sector of the tax system includes managers and other tax officials in the tax administration. Therefore, in order to achieve an overall accountability, the mechanisms of accountability in both sectors have been investigated.

1. The findings of the research indicate the differences in the legitimate expectations and demands of taxpayers, so that the expectations and demands of taxpayers from policy makers, who are in the political sector of the tax system, are related to tax policies. Responses to these legitimate expectations and demands are solely the responsibility of tax policy makers. Also, expectations and demands for information and appropriate mechanisms of communication with taxpayers, classified as part of the social expectations and demands, can be grouped among taxpayers' legitimate expectations and demands from tax policy makers. On the other hand, the legitimate expectations and demands from managers and other tax officials who are in the administrative sector of tax system, although slightly different from each other, include expectations and demands regarding the effectiveness and proper enforcement of laws and regulations, and also informing and establishing appropriate communication mechanisms with taxpayers, guidance and education, and preserving the dignity of taxpayers which are classified as social expectations and demands.
2. Findings, on identifying the accountability mechanisms in the tax system indicate the need for four mechanisms of political, managerial, legal and social accountability to meet the legitimate demands and expectations of taxpayers. Furthermore, the findings indicate that in the case that the political accountability in political sector of tax system is not at the optimal level, the optimality of managerial and legal accountability in administrative sector of tax system does not have a significant impact on voluntary tax compliance. It can be concluded that the overall accountability of the tax system is not at optimal level because in order of importance, the political accountability and then social accountability in tax system are not at the optimal level.
3. Findings also indicate the positive impact of the tax system's overall accountability on public trust and a strong *correlation* between these two variables. Regarding the lack of optimality level in political and social dimensions of public trust, and the optimality level of managerial and legal dimensions of this variable, it can be concluded that, in the general, lack of optimality in public trust, in order of importance, is because its political and social dimensions are not at optimal level.
4. Findings of the research indicate the positive impact of the political dimension of public trust on voluntary tax compliance and the existence of a high *correlation* between these two variables. The findings also indicate the positive impact of social dimension of public trust on voluntary tax compliance and the existence of a weak *correlation* between these two variables. Furthermore, the findings indicate the insignificant impact of the legal and managerial

dimensions of public trust on voluntary tax compliance. Therefore, it can be concluded that despite the optimal level of managerial and legal accountability, in the absence of optimal level of political and social accountability mechanisms, the political and social dimensions of public trust has not been at optimal level and thus this has made voluntary tax compliance status, far from the optimal level.

5. Overall, the findings indicate that in the case that the political accountability is not at the optimal level, the optimality of managerial and legal accountability does not have a significant impact on voluntary tax compliance in tax offices in Mazandaran province of Iran. Managerial and legal accountability had a positive impact on the managerial and legal dimensions of public trust but these two dimensions did not have a significant impact on voluntary tax compliance, which is due to the lack of optimality of political and subsequently social accountability. The positive impact of political dimension of public trust on voluntary tax compliance and existence of a high *correlation between these two variables* reveal the importance of political accountability and its impact on the current unfavorable status of voluntary tax compliance. So, according to the conclusions we have made, the following suggestions are presented:

1. In order to promote public trust, and as a result, to increase voluntary tax compliance in the tax system, the administrative and political sector of the tax system should be considered simultaneously. Expectations from the administrative sector of the tax system, which alone, by improving procedures and processes, as well as the proper implementation of laws and regulations, to promote public trust and thereby to increase voluntary tax compliance, will not be fruitful. In the current situation, more attention should be paid to the legitimate expectations and demands of taxpayers from policy makers regarding the establishment of the laws and regulations presented in Table (3).

2. Political accountability is the most important factor affecting public trust, and as a result, voluntary tax compliance. In the current situation, this is a strengthening of democracy and a response to the legitimate expectations and demands of taxpayers, which can increase the voluntary tax compliance and ultimately tax collection. Therefore, free and democratic elections, which are the most important political accountability tools, must be institutionalized in the community and be given greater consideration by the authorities, so that the voices of citizens, or the same, their legitimate expectations and demands, are reflected in the public policies set up.

3. Social accountability is important. Politicians, as tax policy makers, although not directly accountable until the next election, should be sensitive to the demands and expectations of taxpayers in their term of office, and by establishing appropriate communication channels, transparency in the dissemination of information, respect for the demands of the guilds, etc. be responsive to the social demands of voters. Also, in the administrative sector, managers and other tax officials responsible for policy implementation must, in addition to legal and managerial accountability, be sensitive to the legitimate expectations and demands of taxpayers in establishing appropriate communication channels, informing, educating, and respect, and should not limit their duties solely to improving the effectiveness and proper implementation of laws and regulations.

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