



# The effect of the variables of tax justice perception and trust in government on tax compliance: The case of Turkey

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## ABSTRACT

In this study, the tax compliance behavior of independent accounting professionals is examined and among the variables that affect this behavior, the effects of the variables of tax justice perception and trust in government on tax compliance are researched. 392 independent accounting professionals in Turkey were taken as samples to examine the relationships between the variables of tax compliance, perception of tax justice, and trust in government. The data obtained from this sample were examined using correlation, factor and regression analysis. The findings obtained as a result of the analysis reveal that (1) there is a positive and statistically significant relationship of the trust in government on tax compliance through tax justice perception (mediation), (2) there is a positive and statistically significant relationship of the trust in government on the tax compliance, and (3) there is a positive and statistically significant relationship of the trust in government on the perception of tax justice.

## 1. Introduction

Taxes, one of the components providing social welfare, are gathered for use in the financing of public expenditure. Taxes collected in 2017 in Turkey constitutes approximately 86,97% of public revenues.<sup>1</sup> This rate shows how important the tax is for the execution of public services.

Taxes are collected from the real and legal entities by the government in accordance with the laws for the use in public services in an unrequited way and compulsorily. This situation causes a decrease in the incomes of real and legal persons. For this reason, while some of the taxpayers fulfill their responsibilities in line with their citizenship awareness, some of them do not fulfill their responsibilities. Taxpayers' fulfilling their tax responsibilities is called tax compliance. Various penalties are imposed on taxpayers who do not fulfill their obligations. It is insufficient for the government to try to minimize tax loss by using these penalty and inspection tools. Only economic variables (amount of penalty, tax rate, audit rate, etc.) are not effective on tax compliance (Alm et al., 2012; Andreoni et al., 1998). The government needs to take into account non-economic variables (tax awareness, tax ethics, social and demographic factors, adoption of political power, perception of tax justice, level of trust, trust in government level of religiosness, loyalty to the state, effective use of public expenditure, frequent changes in tax legislation and complexity of the system, tax rates, the frequency of tax amnesties, the lack of

documentation, etc.) as well as economic variables and build a bridge between itself and taxpayers.

Besides economic variables, non-economic variables are important determinants of tax compliance (Muehlbacher et al., 2011; Kirchler et al., 2008). Many empirical studies support this claim such as taxpayers' trust in authorities (Feld and Frey, 2002; Scholz and Lubell, 1998; Van Dijke and Verboon, 2010) and in other taxpayers (Alm et al., 2012) and tax justice perception (Saad, 2011; Gilligan and Richardson, 2005).

Despite these researches, there has been little research directed to study the variables of tax justice perception and trust in government from non-economic factors affecting tax compliance. This framework assumes that tax compliance is influenced by the trust in government (Gangl et al., 2013; Muehlbacher et al., 2011; Gobena and Van Dijke, 2016). The direct effect of trust in government on tax compliance has been examined by previous researchers (Gobena and Van Dijke, 2016; Scholz and Lubell, 1998). This study extends their researches by investigating indirect effect of the trust in government on tax compliance through tax justice perception.

Although the majority of the existing theories and researches in the literature (e.g., Hartman et al., 1998; Kogler et al., 2013; McFarlin and Sweeney, 1992; Alexander and Ruderman, 1987) have been focused on trust as a consequence of justice, there are also studies indicating that trust is an important variable of justice perception (Holtz and Harold, 2008; Brashear et al., 2005; Holtz, 2013; Jimenez and Iyer, 2016).

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<sup>1</sup> Visit <http://www.bumko.gov.tr/TR,7452/2017-butce-gelirlerinin-dagilimi.html> for the distribution of the butce income (last access: 23 January 2018).

It is generally accepted in the tax compliance literature that taxpayer's perception of tax justice increases the trust in government and this affects tax compliance positively. However, this study shows that trust in government increases the taxpayer's perception of justice and consequently affects tax compliance. As a result, the relation between the trust in government and the perception of tax justice can vary depending on the cultural structure of the societies.

The sample of this study consists of independent accounting professionals. There has been little research that the tax compliance behavior of independent accounting professionals is examined. [Alm et al. \(2012\)](#) describe the major actors in the tax compliance game and their complex interactions: taxpayers, elected government officials, appointed tax authorities (or the tax administration), and tax accountants. [Sakurai and Braithwaite \(2003\)](#) investigate the actors affecting their taxpayer behavior and focuses attention on tax accountants. Accountants who are taxpayers inform taxpayers about tax laws, direct them to comply with the law and mediate in taxpayers' fulfilling their responsibilities under tax and social security legislation. For this reason, the higher level of tax compliance of the accounting professionals, the more they are expected to exhibit behavior in this frame while fulfilling the transactions related to the taxpayers and at the same time to raise awareness of the taxpayers and to direct them in this way.

In this study, the tax compliance behavior of independent accounting professionals is examined and the effects of the tax justice perception and the trust in government, which are some of the variables affecting this behavior on the tax compliance will be investigated.

## 2. Literature study

In this study, three variables were used as the accountants' perception, trust in government and tax compliance. Literature study of these variables were made and hypotheses of the research were established.

### 2.1. Tax compliance

Tax compliance means taxpayers' declaring their entire income and paying all taxes by fulfilling their legal obligations ([Alm, 1991](#)). [Mustapha \(2010\)](#) describes tax compliance as taxpayers' preparing and reporting their tax return on time and accurate manner, in accordance with legal regulations. In the simplest form, tax compliance is the level of taxpayers' compliance with tax laws ([James and Alley, 2002](#)).

There are two basic approaches in the literature that affect tax compliance. The first of these is the Economic Approach developed by [Allingham and Sandmo \(1972\)](#). This approach is also called the Allingham and Sandmo Model, the Deterrence Model, the Rational Choice Theory, or the Expected Utility Theory. The second approach is the Behavioral Approach which is called the Moral Sentiments Theory as well.

In the economic approach, taxpayers tend to tax evasion and tax avoidance. Taxpayers do not completely fulfill their obligations on time and in a full manner when they establish the conditions of tax evasion or tax avoidance. The taxpayers will make a comparison between the penalties for irregularity and tax loss they will pay if the tax loss and the tax evasion are detected as a result of the inspections and the audits and the tax that they will pay when they declare their income in full. If the amount of penalty that the taxpayer will pay when his tax evasion and tax loss is detected is more than the tax he will pay when he declares his income in full, he will declare his income; otherwise, he will not. In summary, the economic approach suggests that the behavior of taxpayers is influenced by the variables in financial quality. However, the behavioral approach reveals that the tax compliance behavior of the taxpayers is not only influenced by the financial variables. This approach maintains that tax compliance behavior of taxpayers is affected by non-economic variables such as tax morality, perception of tax justice, trust in government, and religiosity.

Psychologists, sociologists and anthropologists put forward that tax

compliance is also influenced by behavioral theories apart from the classical expected utility theory ([Alm, 1991](#)). [Alm et al. \(1995\)](#) consider the variables affecting tax compliance behaviors in two categories; first economic variables consist of tax burden, sanctions and punishment and second non-economic variables include demographic characteristics, tax morality, attitude to taxation, trust in government and the perception of tax justice. [Mustapha \(2010\)](#) has divided the variables affecting tax compliance into three categories. The first of these is the economic model developed by [Allingham and Sandmo \(1972\)](#); the second is a deterrent modality consisting of audits and punishments, and the third is non-economic variables such as tax morality, tax consciousness, trust in government and the perception of tax justice. [Alm et al. \(1995\)](#) have used experimental methods to investigate economic and non-economic variables, and the results of these experimental methods reveal that these variables significantly affect tax compliance. [Etzioni \(1986\)](#) has examined tax compliance behaviors of taxpayers only in terms of economic approach and claims that these results do not fully explain the taxpayer's behaviors.

Tax compliance is seen as a major problem for most tax authorities. The mutual harmony between the taxpayer and the tax office increases the level of tax compliance of the taxpayer ([Feld and Frey, 2007](#)). It is not easy to convince taxpayers in terms of fulfilling their tax compliance behaviors voluntarily ([James and Alley, 2002](#)). Increasing taxpayers' motivation for voluntary tax compliance and improving tax policies and strategies affect their tax compliance ([Azmi and Perumal, 2008](#)). The tax policy and strategies should be continuously developed by the tax authorities to ensure that taxpayers completely fulfill their tax obligations on time and in a full manner. The main problem in this context is the determination of the need and willingness to lead taxpayers to tax compliance ([James and Alley, 2002](#)). [Andreoni et al. \(1998\)](#) state that taxpayers must voluntarily comply with the tax laws so that economic equilibrium will be generated in a country.

Concepts such as trust in government ([Murphy, 2004](#)), perceived justice in the tax system ([Porcano, 1984](#)), and ethical considerations and norms ([Wenzel, 2004](#)) provide a more comprehensive understanding of tax compliance ([Verboon and Van Dijke, 2007](#)). Although the relationship between justice perception and tax behavior is very complex ([Wenzel, 2002a, b](#)), it is generally assumed that there is a positive relationship between justice perception and tax compliance (for example, [Moser et al., 1995](#); [Spicer and Becker, 1980](#)).

### 2.2. Perception of tax justice

[Andreoni et al. \(1998\)](#) indicate that one of the most important psychological factors associated with tax compliance is tax justice. Taxpayers think that the tax system is unfair when they can not get services in proportion to the taxes they pay. The increase in public service affects the taxpayer's perception of justice in the tax system ([Roberts, 1994](#)). A fair taxation system implemented by the government increases the tax compliance of the taxpayers ([Spicer and Becker, 1980](#)).

Justice is a perception ([Reuben and Winden, 2010](#)). Any increase in the perception of justice leads to an increase in the development of tax compliance ([Forest and Sheffrin, 2002](#)). It is important how a taxpayer perceives the tax system, as a fair tax system would suggest compliance with the taxpayer. The taxpayers' perception of justice about tax laws determines the government's taxation strategy and policy ([Gerbing, 1988](#)). Taxpayers will tend to avoid taxes if they perceive that the tax system is unfair ([Vogel, 1974](#); [Spicer and Becker, 1980](#)).

In many studies, the role of tax justice on tax compliance has been investigated and it is found that there is a positive relationship between tax compliance and justice ([Casal et al., 2016](#); [Schisler, 1995](#); [Vogel, 1974](#); [Spicer and Becker, 1980](#); [Saad, 2011](#)). [Mustapha \(2010\)](#) puts forward that the perception of tax justice affects tax compliance behaviors. [Etzioni \(1986\)](#) states that the effect of justice perception on tax

compliance is greater than the tax rates. Similarly, Gilligan and Richardson (2005), Roberts (1994), and Harris (1989) claim in their studies that the perception of tax justice is significantly related to tax compliance.

The following hypotheses regarding the tax justice perception variable are established by considering these evaluations in the literature.

H<sub>1</sub>: The trust in government of independent accounting professionals is related to their tax compliance through tax justice perception (mediation).

### 2.3. Trust in government

Taxes are perceived as a price paid for services performed by the government. Trust is very important for taxpayers to pay their taxes voluntarily (Scholz and Lubell, 1998; Frey and Torgler, 2006). As the lack of trust in government increases, the revenues and hence the performance of the government from taxation are decrease (Torgler, 2003b).

If the confidence of the taxpayers is high, the taxpayers will be more willing to fulfill their tax obligations (Torgler, 2003b). When the government operates in such a way as to ensure the trust of the taxpayers, the confidence of the taxpayers in the government increases, and at the same time the taxpayers become eager to fulfill their tax obligations. Thus, relations between government and taxpayers will be maintained in a positive way (Torgler and Schneider, 2005).

Generally speaking, the taxpayers who trust the government will show a positive attitude towards their tax liabilities (Beck and Dye, 1982). Taxpayers with a lower level of trust in government perceive the events in a negative way, but taxpayers with higher levels of trust perceive the events as more positive (Robinson, 1996).

The taxpayers who do not trust the government will have a greater doubt about how the taxes collected by the government are spent. Taxpayers will support the government's tax-related decisions when they perceive the government as trustworthy, but will not support those decisions if they do not have confidence (Rudolph, 2009). At the same time, taxpayers who do not trust the government think that the taxes are too high (Beck and Dye, 1982). As a result, distrust in government pushes taxpayers to tax evasion (Jimenez and Iyer, 2016).

Economists in the tax compliance literature have recently found that trust in government is highly influential on tax compliance and have intensified their studies in this regard (Gobena and Van Dijke, 2016; Gangl et al., 2013; Muehlbacher et al., 2011; Scholz and Lubell, 1998; Torgler, 2003b). Scholz and Lubell (1998) investigated the relationship between tax compliance and trust, and concluded that the trust of taxpayers about the government influences tax compliance to a great extent. Trust in government increases the behaviors of the taxpayers towards taxation, as well as its commitment to the tax system and paying taxes (Torgler, 2003b; Jimenez and Iyer, 2016).

Many studies using the *World Values Questionnaire* show that taxpayers become eager to fulfill their tax obligations depending on the trust in government (Torgler 2003a, b, 2004). In other studies conducted in various countries, it is emphasized that there is a positive relationship between trust in government and tax compliance (Richardson, 2008, in 47 countries; Song and Yarbrough, 1978, U.S).

While employees highly trusting the management tend to accept decisions taken by the management, low-trusting employees tend to reject those decisions. High confidence reduces skepticism and creates a wide range of acceptance among employees (Rousseau and Tijoriwala, 1999).

Since the perception of the government's practices as fair by the taxpayers would increase taxpayer confidence, the perceived justice is correlated with the trust in government (Kirchler et al., 2008). Governments are trying to gain the trust of their citizens by increasing their fair and service-oriented behaviors (Kogler et al., 2013; McFarlin and Sweeney, 1992; Alexander and Ruderman, 1987).

In traditional tax literature, trust is modeled as a consequence of justice. However, recent studies in this area reject the idea that the variable of justice precedes the variable of trust (Jimenez and Iyer, 2016; Holtz, 2013). Trust shapes the perception of justice. There is an important effect of trust in the perceptions of individuals about the fairness of the events. As a result, the majority of investigations made in this field reject the view that trust generates earlier than the perceived justice.

Although a majority of the existing theories and researches in the literature (e.g., Hartman et al., 1998; Konovsky and Cropanzano, 1991; Korsgaard et al., 2002; Korssgaard et al., 1995; Mayer et al., 1995; Becerra and Gupta, 2003; Kogler et al., 2013; McFarlin and Sweeney, 1992; Alexander and Ruderman, 1987) have been focused on trust as a consequence of justice, there are also studies indicating that trust is an important variable of justice perception (Holtz and Harold, 2008; Brashear et al., 2005; Holtz, 2013; Jimenez and Iyer, 2016). The perception of trust in government and tax justice has an important influence on tax compliance. The perception of tax justice plays a full mediation role on the relationship between trust in government and tax compliance (Jimenez and Iyer, 2016).

It is generally accepted in the tax compliance literature that taxpayer's perception of tax justice increases the trust in government and this affects tax compliance positively. However, this study shows that trust in government increases the taxpayer's perception of justice and consequently affects tax compliance positively. As a result, trust is formed before justice and the taxpayers evaluate whether the system is fair or not by means of the trust they have in the government. In other words, taxpayers will perceive the implementations conducted by the government as fair if they trust the government.

Considering these evaluations in the literature, the following hypotheses regarding the variable of trust in government are established.

H<sub>2</sub>: The trust in government of independent accounting professionals is related to their tax compliance.

H<sub>3</sub>: The trust in government of independent accounting professionals is related to their perception of tax justice.

## 3. Research method

### 3.1. Collection of data

Data collection took place between March and November 2013. The data were collected online and through paper-and-pencil questionnaires. The population of this study is accountants working independently in various provinces across Turkey as Public Accountants and Public Accountants and Financial Advisors. Union of Chambers of Certified Public Accountants of Turkey's data were used to determine population consisting subject of the study. Accordingly, the population of this was determined as 51,509. An acceptable sample table developed by Sekaran (2003: 294) for particular population was used. A reliable sample can be obtained if at least 381 accounts are reached. Data were obtained through a questionnaire applied to a total of 401 accountants working independently in various provinces across Turkey as Public Accountants and Public Accountants and Financial Advisors. 9 of these questionnaires were eliminated by not considering reliable, and the remaining 392 questionnaires were used in the analysis.

83.7% of the accountants participating in the survey are male and 16.3% are female. 14.8% of the participants have degrees in high school, 0.8% in two-year degree, 79.3% in undergraduate, 4.8% in post graduate and 0.3% in doctorate degree. 5.6% of the titles of the participants are Public Accountants, and 94.4% are Public Accountants and Financial Advisors, 86% of the participants are married and 14% are single. 28.6% of the accountants have a monthly income of over TL 5,000, 24.7% between 2000 and 3000 TL, 21.9% between 3000 and 4000 TL, 16.8% 4000 and 5000 TL and 7.9% between 1000 and 2000 TL.

### 3.2. Creation of the scales

The variables used in the research were adapted from the scales tested for validity and reliability in different studies in the literature. The questionnaire form includes questions about trust in government, perception of tax justice, tax compliance and demographic characteristics. Survey questions were measured with a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The tax compliance scale of the accountants was adapted from the articles of Murphy (2009), Mustapha (2010), and Verboon and Dijke (2007). The tax justice perception scale was developed by Gerbing (1988). The scale of trust in government was adapted from the articles of Brewer and Sigelman (2002) and Colesca (2009).

## 4. Results

### 4.1. Factor Analysis, validity and reliability

In the study, answers given by the accountants to questions about the variables of tax compliance, tax justice perception, and trust in government were used and exploratory factor analysis (EFA) was performed with the method of analysis of basic components variance maximization in order to classify among themselves.

The three factors resulting from the analysis account for 69.65% of the total variance, as seen in Table 1. Factor 1, which represents the perception of tax justice, accounts for 33.15% of the largest part of the total variance alone, independent of other factors, and includes variables related to the tax justice perception factor. Factor 2 accounts for 20.41% of the total variance independent of the first factor and includes variables for tax compliance. The other factor is determined as trust in government. In addition, the final factor total variance explaining percentage was found as 16.09%. Each variable was found to be loaded on the related factor positively and with a high correlation.

The Cronbach alpha-α test was used to evaluate the reliability of the scales (Ravichandran et al., 1999). The coefficients of reliability of all factors in the research model (cronbach alpha) being higher than the coefficient of reliability (cronbach's alpha), which is accepted as 70% in international studies, indicate the fact that the scale fulfills the reliability conditions and the variables have internal consistency (see Table 1).

The KMO (Kaiser–Meyer–Olkin) sampling adequacy criterion and the Barlett test were used to test the suitability of the factor analysis and the homogeneity of the variables used. KMO is an index used to

**Table 1**  
Factor loads matrix and reliability results.

Variables	Factor loads	Ratio of variance explanation (%)
The perception of tax justice	Cronbach α: 0.945	33.152
In general, I think it's a fair tax system.	0.888	
In general, the tax burden is distributed fairly.	0.886	
I believe that the tax burden among taxpayers is fairly distributed.	0.871	
Personally according to me, the tax system is fair.	0.833	
I think the tax system for the average taxpayer is fair.	0.826	
Everyone in our country pays tax at a level consistent with their income.	0.793	
Everyone in our country pays tax suitable to their payment power.	0.775	
Tax compliance	Cronbach α: 0.814	20.407
I show all the effort to exaggerate my expenses.	0.806	
I declare my expenses in an exaggerated way.	0.777	
I do not give a receipt or invoice if the customer does not want it and I do not declare such revenues.	0.741	
I am consciously looking for ways to cheat on the tax system.	0.704	
I do not declare certain revenues that cannot be determined on taxation.	0.679	
I avoid paying taxes as much as possible.	0.636	
Trust in government	Cronbach α: 0.920	16.094
I trust in government.	0.915	
According to me, the government is trustworthy.	0.909	
The government is concerned with the interests of all citizens and is working for their benefit.	0.769	
Total variance explanation rate (%)		69.653

measure the adequacy of the sample size for factor analysis by comparing the magnitude of the observed correlation coefficients and the magnitude of partial correlation coefficients (Norusis, 1993). The KMO (Kaiser–Meyer–Olkin) sampling adequacy criterion value obtained with EFA (exploratory factor analysis) was calculated as 88%. This indicates that the variables included in the scale are appropriate for factor analysis (Sharma, 1996). The results of the Barlett test (Chi-Square = 4.742,  $p < 0.000$ ) show that there is a relation between the variables in the main mass.

Table 2 gives the mean, standard deviations, and correlation results for all variables. As it is seen in the table, since cronbach α values related to variables are greater than the correlation values between the variables, there is decomposition validity (Gaski, 1984). When we look at the correlation results between variables, it is seen that the variables have positively and statistically significant relations both with each other and with the tax compliance at a level of  $p < 0.01$ .

### 4.2. Testing the hypotheses

Findings obtained from the regression analysis conducted to test the hypotheses formed to measure the effect of the accountants' perception of tax justice, tax compliance and trust in government variables in the research model are reported in Table 3.

When Table 3 is examined, demographic data (gender, age, marital status) have not an effect on our variables. It is seen that the model is statistically significant ( $F = 42.407$ ;  $p < 0.001$ ) and the power of explanation is significant ( $R^2 = 0.30$ ) according to the results of model 1 investigating the relation of trust in government on the tax justice perception. As a result of the regression analysis, it is seen that trust in government on the tax justice perception ( $B: 0.53$ ,  $p < 0.001$ ) is statistically significant and has a positive relationship. This conclusion requires the acceptance of the  $H_3$  hypothesis; *trust in government of independent accounting professionals is related to their perception of tax justice*.

According to the results of model 2 that the relation of trust in government on tax compliance is examined, it is seen that the model is statistically significant ( $F = 4.241$ ;  $p < 0.001$ ) and explanation power is ( $R^2 = 0.04$ ). As a result of the regression analysis, it is seen that trust in government on tax compliance ( $B: 0.148$ ;  $p < 0.001$ ) is statistically significant and has a positive relationship. This conclusion requires the acceptance of the  $H_2$  hypothesis, *trust in government of independent accounting professionals is related to their tax compliance*.

According to the results of model 3 that the relations of tax justice



**Table 2**  
Descriptive statistics and correlations related to variables.

	Tax compliance	Perception of tax justice	Trust in government	Mean	Standard Deviation
Tax compliance	1.00			4.3057	0.72292
The perception of tax justice	0.253*	1.00		2.4741	0.94405
Trust in government	0.198*	0.547*	1.00	3.6446	0.97661

\* Correlation values are significant at 0.01 level.

perception and trust in government on tax compliance are examined, it is seen that the model is statistically significant ( $F = 5.865; p < 0.001$ ), and explanation power is significant ( $R^2 = 0.07$ ). According to the results of the regression analysis, it is seen that the perception of tax justice ( $B: 0.155; p < 0.001$ ) has a positive relationship on tax compliance and the trust in government ( $B: 0.065; p > 0.138$ ) has not a statistically significant relationship on tax compliance. According to this result, perception of tax justice has a full mediating effect on the relationship between trust in government and tax compliance. This conclusion requires the acceptance of the  $H_1$  hypothesis, *trust in government of independent accounting professionals is related to their tax compliance through tax justice perception (mediation)*.

The mediation analysis is run using the PROCESS macro (Hayes, 2013), model 4, using 5000 bootstrap samples for bias correction and to establish 95% confidence intervals. The results from our mediation analyses are summarized in Fig. 1 and Table 4.

## 5. Discussion

In this study, the tax compliance behavior of independent accounting professionals is examined and the effects of the tax justice perception and the trust in government, which are some of the variables affecting this behavior on the tax compliance are investigated. Hypotheses are tested in a sample of independent accounting professionals. The first one of the findings reveals that the trust in government has a positive and statistically significant relationship on tax compliance. Another finding indicates that trust in government has a positive and statistically significant relationship on the perception of tax justice. The last finding indicates that perception of tax justice has a full mediating effect on the relationship between trust in government and tax compliance. In the following sections, the implications and limitations of this research are discussed.

### 5.1. Theoretical implications

The first of the findings reveals that demographic data (gender, age, marital status) have not an effect on our variables. This result is in the same line with the results of similar studies in the literature (Kogler et al., 2016; Hofmann et al., 2017; Muehlbacher et al., 2011). The results that research on the relations between tax compliance and age, gender is less clear. While some studies show significant relations with age (Vogel, 1974; Muehlbacher et al., 2011; Hofmann et al., 2017) and

gender (Kogler et al., 2016; Togler and Valev, 2010; Casal et al., 2016), others show no effect with age (Song and Yarbrough, 1978) and gender (Muehlbacher et al., 2011; Hofmann et al., 2017).

According to another research finding, the trust in government has a positive and statistically significant relationship on tax compliance. This means that as the trust of accountants in the government increases, tax compliance levels will also increase. Findings coincide with the results of similar studies in the literature (Gangl et al., 2013; Muehlbacher et al., 2011; Hammar et al., 2009; Ali and Ahmad, 2014; Scholz and Lubell, 1998; Siahaan, 2012; Kogler et al., 2013; Torgler, 2003b).

It is also revealed by another finding that the perception of tax justice has a positive and statistically significant relationship on tax compliance. This means that as accountants' perception of tax justice increases, so does the level of tax compliance. This result is in the same line with the results of similar studies in the literature (Siahaan, 2005, 2012; Spicer and Becker, 1980; Saad, 2011; Etzioni, 1986; Schisler, 1995; Vogel, 1974; Gilligan and Richardson, 2005; Roberts, 1994; Mustapha, 2010; Harris, 1989).

Another research finding shows that perception of tax justice has a full mediating effect on the relationship between trust in government and tax compliance. The indirect effect of trust in government on tax compliance through perception of tax justice is positive and significant. The result supports the findings of Jimenez and Iyer (2016).

The last finding shows that the trust in government has a positive and statistically significant relationship on the perception of tax justice. This means that as the trust of the accountants in the government increases, the level of tax justice perception will increase as well. The result supports the findings of Holtz and Harold (2008) and Brashear et al. (2005) and Holtz (2013) and Jimenez and Iyer (2016).

Whereas the majority of the researches conducted in various countries (e.g., Becerra and Gupta, 2003; Kogler et al., 2013; Siahan, 2012) reveal that justice affects trust, in this study conducted in Turkey indicates that trust affects justice. This difference may be due to the cultural structure of societies. Cultural values are an important factor driving the individual's thoughts and behavior (Liu et al., 2001; Rozin, 2003). Societies establish a link with the government in accordance with their own history and values. This link can vary from society to society. The expectations of each society from the government and their trust in government in line with these expectations may vary depending on the cultural structure. If the society trust the government, they also believe the activities done by the government are fair. In countries

**Table 3**  
Regression analysis results.

Independent variable	Model 1 Perception of tax justice		Model 2 Tax compliance		Model 3 Tax compliance	
	B	t	B	t	B	t
Perception of tax justice					0.155	3.447*
Trust in government	0.530	12.805*	0.148	3.963*	0.065	1.487
Gender	0.021	0.8566	0.028	0.267	0.025	0.239
Age	-0.008	-1.667	-0.004	-1.075	-0.003	-0.795
Marital status	-0.072	-0.5828	-0.033	-0.294	-0.021	-0.196
Model F	42.407		4.241		5.865	
R <sup>2</sup>	0.305		0.042		0.071	

\* Meaningful with 0.001 error margin.

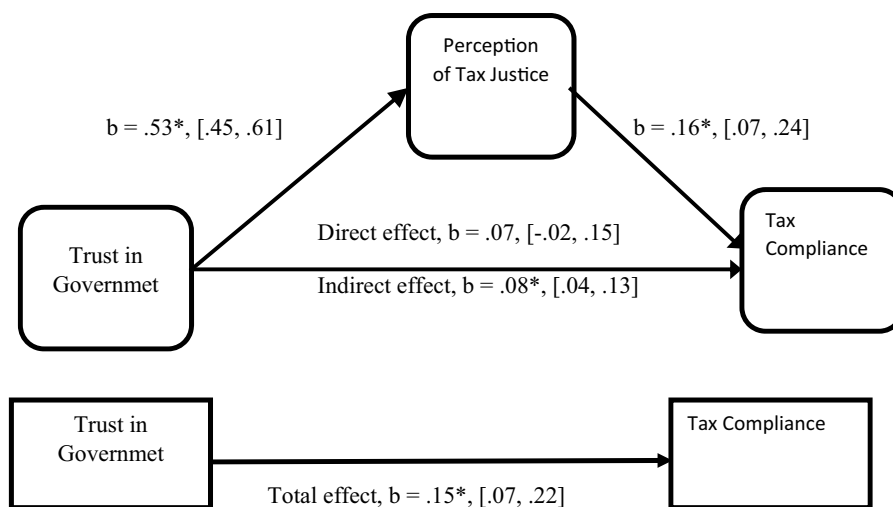


Fig. 1. Mediation by perception of tax justice on the trust in government-tax compliance relationship.

**Table 4**  
Mediation effects of perception of tax justice on the relationship between trust in government and tax compliance.

Effect	b	95% CI	
		Lower	Upper
Total	0.15*	0.07	0.22
Direct	0.07	-0.02	0.15
Indirect (mediation)	0.08*	0.04	0.13

\* Meaningful with 0.001 error margin.

where the studies have been concluded that justice affects trust, the activities of the government are examined primarily by the society. If the society believes that the activities done by the government are fair, then trust in the government is established. As a result, the relation between the trust in government and the perception of tax justice can vary depending on the cultural structure of the societies.

In tax compliance literature, there has been little research that the tax compliance behavior of independent accounting professionals is examined. The sample of this study consists of independent accounting professionals.

### 5.2. Practical implications

Tax is the most important source of revenue for the governments. As the level of tax compliance of the taxpayers increases, the income of the governments will increase. Therefore governments want to determine the variables affecting taxpayers' tax compliance. These variables may help governments to improve their tax policies and strategies.

The results of this study may inform governments of ways to improve tax compliance. The first one of the findings reveals that the trust in government has a positive and statistically significant relationship on tax compliance. This means that as the trust of accountants in the government increases, tax compliance levels will also increase. Another finding indicates that the perception of tax justice has a positive and statistically significant relationship on tax compliance. This means that as accountants' perception of tax justice increases, so does the level of tax compliance. The last finding indicates that the trust in government has a positive and statistically significant relationship on the perception of tax justice. This means that as the trust of the accountants in the government increases, the level of tax justice perception will increase as well. According to this result, if the society trust the government, they also believe the activities done by the government are fair.

Taxpayers' decision depends on their judgments about the government, authorities, tax accountants, and the activities of other taxpayers

(Alm et al., 2012). Accountants play an important role in taxpayer's tax compliance behavior (Tan, 1999). Majority of taxpayers tend to agree with the conservative or aggressive advice given by their tax accountants because of the increasing complexity of tax laws (Tan, 1999; Killuan and Doyle, 2005) and insufficiency of information on taxpayers' tax laws (Tan, 1999). They both enforcers of the tax law (unambiguous situations) and exploiters of the tax law (ambiguous situations) (Klepper and Nagin, 1989; Klepper et al., 1991; Tan, 1999). They guide taxpayers about tax laws. If the level of tax compliance of the tax accountants is high, they will guide taxpayers by this awareness about tax laws. Therefore the government should consider the means to increase the level of tax compliance of accountants.

### 5.3. Limitations and suggestions for future research

This research has some limitations in itself as it is in all field researches. First, the design of the study was cross-sectional. Therefore, the results should be interpreted cautiously. Future research is warranted to clarify the causal links between the variables using experimental or longitudinal designs. Another limitation is the sample size generated by the participants. The data used in this study were collected from independent accounting professionals in Turkey. For this reason, the results of this research can only be interpreted for this professional group. However, this work may give a lead to on other studies to be conducted on other occupational groups. At the same time, due to the fact that these results are collected from 392 independent accounting professionals in Turkey, generalizing to all accountants in Turkey is prevented because of the negative aspects of sampling. The last constraint of the study is constituted by the variables that are considered. Variables affecting tax compliance are quite a lot. However, variables were collected and analyzed for the purpose determined in this study. In future studies, larger independent variables can be expanded and larger samples can be used.

### Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.socce.2018.12.006.

### References

Alexander, S., Ruderman, M., 1987. The role of procedural and distributive justice in organizational behavior. *Soc. Justice Res.* 2, 177–198.  
 Ali, A., Ahmad, N., 2014. Trust and tax compliance among Malaysian working youth. *Int. J. Public Adm.* 37, 389–396.  
 Allingham, M.G., Sandmo, A., 1972. Income tax evasion: a theoretical analysis. *J. Public*

- Econ. 1, 323–338.
- Alm, J., 1991. A perspective on the experiment analysis of taxpayer reporting. *Account. Rev.* 66, 577–593.
- Alm, J., Kirchler, E., Muehlbacher, S., 2012. Combining psychology and economics in the analysis of compliance: from enforcement to cooperation. *Econ. Anal. Policy* 42 (2), 133–151.
- Alm, J., Sanchez, I., Juan, A.D., 1995. Economic and noneconomic factors in tax compliance. *Kyklos* 48, 3–18.
- Andreoni, J., Erard, B., Feinstein, J., 1998. Tax compliance. *J. Econ. Lit.* 36 (2), 818–860.
- Azmi, A.A.C., Perumal, K.A., 2008. Tax fairness dimensions in an asian context: the Malaysian perspective. *Int. Rev. Bus. Res. Pap.* 4 (5), 11–19.
- Becerra, M., Gupta, A., 2003. Perceived trustworthiness within the organization: the moderating impact of communication frequency on trustor and trustee. *Article in Organ. Sci.* 1–19.
- Beck, P.A., Dye, T.R., 1982. Sources of public opinion on taxes: the Florida case. *J. Politics* 44 (1), 172–182.
- Brashear, T.G., Manolis, C., Brooks, C.M., 2005. The effects of control, trust, and justice on salesperson turnover. *J. Bus. Res.* 58, 241–249.
- Brewer, P.R., Sigelman, L., 2002. Trust in government: personal ties that bind? *Soc. Sci. Q.* 83 (2), 624–631.
- Casal, S., Kogler, C., Mittone, L., Kirchler, E., 2016. Tax compliance depends on voice of taxpayers. *J. Econ. Psychol.* 56, 141–150.
- Colesca, S.E., 2009. Increasing e-trust: a solution to minimize risk in e-government adoption. *J. Appl. Quant. Methods* 4 (1), 31–44.
- Eziani, A., 1986. Tax evasion and perceptions of tax fairness: a research note. *J. Appl. Behav. Sci.* 22 (2), 177–185.
- Feld, L.P., Frey, B.S., 2002. Trust breeds trust: how taxpayers are treated. *Econ. Gov.* 3 (2), 87–99.
- Feld, L.P., Frey, B.S., 2007. Tax compliance as the result of a psychological tax contract: the role of incentives and responsive regulation. *Law Policy* 29 (1), 102–120.
- Forest, A., Sheffrin, S.M., 2002. Complexity and compliance: an empirical investigation. *Natl. Tax J. LV* (1), 75–88.
- Frey, B.S., Torgler, B., 2006. Tax Morale and Conditional Cooperation. Institute For Empirical Research in Economics, University of Zürich Working Paper no. 286.
- Gangl, K., Muehlbacher, S., Hofmann, E., Kogler, C., 2013. “How can i help you?” Perceived service orientation of Tax authorities and Tax compliance. *Public Financ. Anal.* 69 (4), 487–510.
- Gaski, J.F., 1984. The theory of power and conflict in channels of distribution. *J. Mark.* 48, 9–29.
- Gerbing, M.D., 1988. An Empirical Study of Taxpayer Perceptions of Fairness. Ph.D. thesis. The University of Texas at Austin, Austin.
- Gilligan, G., Richardson, G., 2005. Perceptions of tax fairness and tax compliance in Australia and Hong Kong: a preliminary study. *J. Financ. Crime* 12 (4), 331–343.
- Gobena, L.B., Van Dijke, M., 2016. Power, justice, and trust: a moderated mediation analysis of tax compliance among Ethiopian business owners. *J. Econ. Psychol.* 52, 24–37.
- Hammar, H., Jagersb, S.C., Nordblom, K., 2009. Perceived tax evasion and the importance of trust. *J. Socio-Econ.* 38, 238–245.
- Harris, T.D., 1989. The Effect of Type of Tax Knowledge on Individuals' Perceptions of Fairness and Compliance with the Federal Income Tax System: An Empirical Study. Ph.D. thesis. University of South Carolina, South Carolina.
- Hartman, S.J., Yrle, A.C., Galle, W.P., 1998. Procedural and distributive justice: examining equity in a university setting. *J. Bus. Ethics* 20, 337–351.
- Hayes, A.F., 2013. Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach. The Guilford Press, New York.
- Hofmann, E., Voracek, M., Bock, C., Kirchler, E., 2017. Tax compliance across socio-demographic categories: meta-analyses of survey studies in 111 countries. *J. Econ. Psychol.* 62, 63–71.
- Holtz, B.C., 2013. Trust primacy: a model of the reciprocal relations between trust and perceived justice. *J. Manag.* 39 (7), 1891–1923.
- Holtz, B.C., Harold, C.M., 2008. When your boss says no! The effects of leadership style and trust on employee reactions to managerial explanations. *J. Occup. Organ. Psychol.* 81, 777–802.
- James, S., Alley, C., 2002. Tax compliance, self assessment and tax administration. *J. Financ. Manag. Public Serv.* 2, 27–42.
- Jimenez, P., Iyer, G.S., 2016. Tax compliance in a social setting: the influence of social norms, trust in government, and perceived fairness on taxpayer compliance. *Adv. Account.* 34, 17–26.
- Killuan, S., Doyle, E., 2005. Tax aggression among tax professionals: the case of South Africa. *J. Account. Ethics Public Policy* 4 (3), 159–189.
- Kirchler, E., Hoelzl, E., Wahl, L., 2008. Enforced versus voluntary tax compliance: the “slippery slope” framework. *J. Econ. Psychol.* 29, 210–225.
- Klepper, S., Mazur, M., Nagin, D., 1991. Expert intermediaries and legal compliance: the case of tax preparers. *J. Law Econ.* 34 (1), 205–229.
- Klepper, S., Nagin, D., 1989. The role of tax preparers in tax compliance. *Policy Sci.* 22 (2), 167–194.
- Kogler, C., Batrancea, L., Nichita, A., Pantya, J., Belianin, A., Kirchler, E., 2013. Trust and power as determinants of tax compliance: testing the assumptions of the slippery slope framework in Austria, Hungary, Romania And Russia. *J. Econ. Psychol.* 34, 169–180.
- Kogler, C., Mittone, L., Kirchler, E., 2016. Delayed feedback on tax audits affects compliance and fairness perceptions. *J. Econ. Behav. Organ.* 124, 81–87.
- Konovsky, M.A., Cropanzano, R., 1991. Perceived fairness of employee drug testing as a predictor of employee attitudes and job performance. *J. Appl. Psychol.* 76 (5), 698–707.
- Korsgaard, M.A., Brodt, S.E., Whitener, E.M., 2002. Trust in the face of conflict: the role of managerial trustworthy behavior and organizational context. *J. Appl. Psychol.* 87 (2), 312–319.
- Korsgaard, M.A., Schweiger, D.M., Sapienza, H.J., 1995. Building commitment, attachment, and trust in strategic decision making teams: the role of procedural justice. *Acad. Manag. J.* 38 (1), 60–84.
- Liu, B.S.-C., Furrer, O., Sudharshan, D., 2001. The Relationship between culture and behavioral intentions toward services. *J. Serv. Res.* 4 (2), 118–129.
- Mayer, R.C., Davis, J.H., Schoorman, F.D., 1995. An integrative model of organizational trust. *Acad. Manag. Rev.* 20 (3), 709–734.
- McFarlin, D.B., Sweeney, P.D., 1992. Distributive and procedural justice as predictors of satisfaction with personal and organizational outcomes. *Acad. Manag. J.* 35 (3), 626–637.
- Moser, D.V., Evans III, J.H., Kim, C.K., 1995. The effects of horizontal and exchange inequity on tax reporting decisions. *Account. Rev.* 70 (4), 619–634.
- Muehlbacher, S., Kirchler, E., Schwarzenberger, H., 2011. Voluntary versus enforced tax compliance: empirical evidence for the “slippery slope” framework. *Eur. J. Law Econ.* 32 (1), 89–97.
- Murphy, K., 2004. The role of trust in nurturing compliance: a study of accused tax avoiders. *Lawand Hum. Behav.* 28 (2), 187–209.
- Murphy, K., 2009. Procedural justice and affect intensity: understanding reactions to regulatory authorities. *Soc. Justice Res.* 22 (1), 1–30.
- Mustapha, B., 2010. The Impact of Tax Fairness and Demographic Factors on Tax Compliance in Nigeria. Ph.D. thesis. University Utara Malaysia, Malaysia.
- Norusis, M.J., 1993. SPSS for Windows: Professional Statics, Release 6.0. SPSS Inc., Chicago.
- Porcano, T.M., 1984. Distributive justice and tax policy. *Account. Rev.* 59, 619–636.
- Ravichandran, T., Arun, R., 1999. Total quality management in information systems development: key constructs and relationship. *J. Manag. Inf. Syst.* 16, 119–156.
- Reuben, E., Winden, F.V., 2010. Fairness perceptions and prosocial emotions in the power to take. *J. Econ. Psychol.* 31, 908–922.
- Richardson, G., 2008. The relationship between culture and tax evasion across countries: additional evidence and extensions. *J. Int. Account. Audit. Tax.* 17, 67–78.
- Roberts, M.L., 1994. An experimental approach to changing taxpayers' attitudes towards fairness and compliance via television. *J. Am. Tax. Assoc.* 16, 67–86.
- Robinson, S.L., 1996. Trust and breach of the psychological contract. *Adm. Sci. Q.* 41, 74–599.
- Rousseau, D.M., Tijoriwala, S.A., 1999. What' a good reason to change? Motivated reasoning and social accounts in promoting organizational change. *Am. Psychol. Assoc.* 84 (4), 514–528.
- Rozin, P., 2003. Five potential principles for understanding cultural differences in relation to individual differences. *J. Res. Personal.* 37, 273–283.
- Rudolph, T.J., 2009. Political trust, ideology and public support for tax cuts. *Public Opin. Q.* 73 (1), 144–158.
- Saad, N., 2011. Fairness Perceptions and Compliance Behaviour: Taxpayers Judgments in Self-Assessment Environments. Ph.D. thesis. University of Canterbury, New Zealand.
- Sakurai, Y., Braithwaite, V., 2003. Taxpayers perceptions of practitioners: finding one who is effective and does the right thing? *J. Bus. Ethics* 46, 375–387.
- Schisler, D.L., 1995. Equity, Aggressiveness, Consensus: A Comparison of Taxpayers and Tax Preparers 9. American Accounting Association, pp. 76–87.
- Scholz, J.T., Lubell, M., 1998. Trust and taxpaying: testing the heuristic approach to collective action. *Am. J. Political Sci.* 42 (2), 398–417.
- Sekaran, U., 2003. Research Methods for Business: A Skill Building Approach. John Wiley & Sons, pp. 294 ABD.
- Sharma, S., 1996. Applied Multivariate Techniques. John WileyandSons Inc, New York.
- Siahaan, F.O.P., 2005. The influence of tax fairness, ethical attitudes and commitment on taxpayer compliance behavior. *Int. J. Account. Bus. Soc.* 13, 33–44.
- Siahaan, F.O.P., 2012. The influence of tax fairness and communication on voluntary compliance: trust as an intervening variable. *Int. J. Bus. Soc. Sci.* 3 (21), 191–198.
- Song, Y., Yarbrough, T.E., 1978. Tax ethics and taxpayer attitudes: a survey. *Public Adm. Rev.* 38, 442–453.
- Spicer, M.W., Becker, L.A., 1980. Fiscal inequity and tax evasion: an experimental approach. *Natl. Tax J.* 33 (2), 171–175.
- Tan, L.M., 1999. Taxpayers' preference for type of advice from tax practitioner: a preliminary examination. *J. Econ. Psychol.* 20 (4), 431–447.
- Torgler, B., 2003a. Tax morale in transition countries. *Post-Communist Econ.* 15 (3), 57–381.
- Torgler, B., 2003b. Tax morale, rule-governed behaviour and trust. *Const. Political Econ.* 14, 119–140.
- Torgler, B., 2004. Tax morale, trust and corruption: empirical evidence from transition countries. Working Paper No. 2004-5. Center For Research in Economics. (CREMA) Management and the Arts.
- Torgler, B., Schneider, F., 2005. Attitudes towards paying taxes in Austria: an empirical analysis. *Empirica* 32, 231–250.
- Togler, B., Valev, N.T., 2010. Gender and public attitudes toward corruption and tax evasion. *Contemp. Econ. Policy* 28, 554–568.
- Van Dijke, M., Verboon, P., 2010. Trust in authorities as a boundary condition to procedural fairness effects on tax compliance. *J. Econ. Psychol.* 31 (1), 80–91.
- Verboon, P., van Dijke, M., 2007. A self-interest analysis of justice and tax compliance: how distributive justice moderates the effect of outcome favorability. *J. Econ. Psychol.* 28, 704–727.
- Vogel, J., 1974. Tax ation and public opinion in Sweden: an interpretation of recent survey data. *Natl. Tax J.* 27 (4), 499–513.
- Wenzel, M., 2002a. The impact of outcome orientation and justice concerns on tax compliance: the role of taxpayers' identity. *J. Appl. Psychol.* 87 (4), 629–645.
- Wenzel, M., 2002b. Tax compliance and the psychology of justice: mapping the field. *Tax. Democr.* 41–69.
- Wenzel, M., 2004. An analysis of norm processes in tax compliance. *J. Econ. Psychol.* 25, 213–228. <http://www.bumko.gov.tr/TR,7452/2017-butce-gelirlerinin-dagilimi.html> Accessed: 23 January 2018, for the distribution of the butce incomelast.