Keystones of Performing a Proper Tax Policy Design for Tax Compliance: Does Perception of Tax Compliance Develop in Persons Who Are Not Tax Payers Yet?

Fatih Saraçoğlu, Eren Çaskurlu and Elif Pürsünlerli

Abstract

Tax compliance takes place in the scope of the efficiency of the tax implementation. Tax income operations are heavily dependent on tax compliance, while the fairness of the allocation of tax burden affects tax payers’ compliance. The situation has been studied here by dealing with university students in regard to whether or not a perception of tax compliance develops in highly educated people who are not tax payers yet and to what degree. The findings of the study briefly states that students agree that paying taxes completes the concept of being a good citizen, perceive the sensitivity submitting declarations on time and showing care in paying tax debts, and have negative perceptions on the tax administration being transparent, correct, and trustable. So for, an achievement of a proper tax policy design should be primarily considered as the perception of tax compliance of the people, who being the tax payers of any country.

Keywords: tax compliance, tax consciousness, tax ethics, tax policy design

1. Introduction

The importance of tax income within the total state income can be evaluated in numerous ways including the funding amount based on the emphasis, scope, and variety of the state’s hegemonic power, and its usage as a fiscal policy tool. It is a de facto assumption for all countries that tax income cannot be gained in its entire potential (tax capacity). The same is also valid for the efforts aimed at minimizing the loss of tax revenue (tax effort). It is undeniable that applications for taxpayers both socially and psychologically are also needed in order to prevent possible loss of tax income along with the technical efforts made by tax legislators and tax offices. Thus, tax compliance takes place in the scope of the efficiency of the tax implementation such as the completeness of legislation, inspections, and sanctions.
Many high quality studies have been conducted in Turkey on tax compliance and its main indicators, i.e., tax ethics. Some of these were supported with field studies. However, due to the passing of time and changing conditions, the continuity in the research on these issues is required since empirical studies indicate that the changes in the conditions over time may give different results.

In this study, as a different approach, perception of tax compliance was tested on university students who have little or no tax implementation experience. For the government, tax income operations are heavily dependent on tax compliance, while the fairness of the allocation of tax burden affects the tax payers’ compliance. The situation has been studied here by dealing with university students in regard to whether or not a perception of tax compliance develops in a highly educated people who are not tax payers yet, and to what degree. With this intention, a questionnaire related to the factors that affect the tax compliance was implemented on a sample group that includes people with similar characteristics involving the level of education, department of study, and age.

1.1. The concept of tax compliance

As stated by James and Alley, tax compliance was defined “in terms of the degree to which taxpayers comply with the tax law” [1]. Tax compliance is the tax payers’ compliance with tax laws and regulations, while the concept assumes willingness of the tax payers to comply with their liabilities without being inspected, prosecuted, and without a need for a threat or a sanction [2]. The concepts of tax ethics and tax consciousness are hidden in this definition. Tax consciousness is defined as a necessary fact that helps to know the extent to which changes in people’s tax burden will affect their behavior [3]. Besides that, tax moral is also defined as “taxpayers’ intrinsic motivation to pay taxes” in [4]. Higher the tax consciousness happens, higher the tax morality becomes. As long as the tax consciousness occurs and increases, tax moral will increase and a perception of tax compliance will develop (Figure 1).

The tax compliance shaped by tax consciousness and tax ethics should be completed by the stages of taxing in terms of the tax payer. The content of tax compliance is described in four parts [5]:

- Complete declaration of the income to be taxed
- Accurate representation of the factors to be discounted from the tax
- Submitting the declaration on time
- Calculating the tax liability correctly.

In our study, the concept of tax compliance will be tested with empirical experiments on university students who are not tax payers yet, but have knowledge about these issues because of their level of education. For this paper, it is preferred to use lab experiment with undergraduate students. As referred in [6], most laboratory experiments which have been conducted by using students are very common. The reason is that in these experiments, it is realized that the responses of students are often heavily the same as the responses of other subject pools in similar lab experiments. Unlike Levitte and List (2007) and Kogler et al. [27], students as a subject pool are useful in many studies [7–10].
Even though the study has its limitations, it will help in the development of a perception of tax compliance through information before tax-paying experience and efforts for the creation of social norms in terms of its novelty. Thus, it will show whether such efforts will have an impact on the efficiency of future tax income.

1.2. Types of tax compliance and effective factors

Tax compliance may be defined in two ways namely formal compliance and financial compliance. Formal compliance is the compliance with the formal requirements in terms of tax laws by the tax payers. Financial compliance is the compliance with the financial requirements by the tax payers based on the letter and spirit of tax laws. Formal tax compliance is a complementary...
factor on financial compliance. The requirement of financial compliance for the tax compliance to be complete was also indicated by Pertiwi [2].

There are fundamental factors that affect formal and/or financial compliance. The following is a list of factors that affect tax compliance [11]:

- Level of income and tax ratios
- Social and demographic factors
- Sanctions, probability of inspection, previous inspections
- Subjective and objective measures/preventions
- Effects of certified public accountants and/or tax consultants
- Moral and social dynamics
- Complexity of the tax system and tax amnesty.

Among the factors stated above, the ones emphasized here are social-demographic and moral-social dynamics that affect compliance for the tax payer and inspections-sanctions and subjective-objective measures that affect tax administration implementations. The level of knowledge and social norms gained by students in the experiment up to this study is considered to be sufficient in order to test the factors mentioned before.

In addition to the factors listed above, various financial and economic indicators that affect tax compliance may lead to a change in the tax payer’s perception of compliance. These factors may be ordered as follows: tax burden, tax structure, debt burden, and underground economy (Figure 2).

The most important macroeconomic parameter that affects the perception of tax compliance is the tax burden, which also affects tax consciousness. The higher the tax burden on an individual is, the more problematic the tax compliance becomes, especially because of the idea that the system is unjust. The idea that the tax burden is unjust may develop based on the ratio of direct and indirect taxes in the tax structure. As the tax payers know that indirect taxes are collected from everyone on goods and services and the burden is inversely proportionate to the income, they may develop opposite reactions. In direct taxes, such as ones collected according to a projected declaration, the tax payer may fail to comply with the declaration based on the amount of the burden. In withholding taxes, as there is no way to avoid the tax, there may be thoughts of overestimation against other tax payers. This situation in the direct and indirect tax structure may affect tax compliance by itself, as well as over the tax burden.

Debt burden normally leads to tax increases for the term following the term it is experienced. The tax burden is dependent on the magnitude of the debt burden. This is another way of which tax burden interferes with tax compliance. As Önder reports that any decrease or disappearance of the perception of tax compliance for any reason will bring an increase in underground economy [12]. In scope of this issue, the 2015 Action Plan to Eliminate Underground Economy by the Ministry of Development determined increasing the voluntary tax compliance as an important action plan component and stated that “Economic, sociological, cultural, etc. factors that affect voluntary tax compliance will be analyzed, and solutions will be developed to increase the level of compliance by the tax payers” [13].
Table 1 shows some indicators that affect tax compliance in Turkey with numbers from the year 2013. These data not only provide numbers important to understand the concepts used in this study but also represent factors that influence real life situations. During the experimental implementation stage of the study, the students were briefed about the data that are mentioned.

| Indicator                                      | 2013 %  |
|------------------------------------------------|---------|
| Income tax/gross domestic product (GDP)        | 5.02    |
| Corporate tax/GDP                              | 2.01    |
| VAT + special consumption tax/GDP              | 10.1    |
| Tax burden/GDP                                  | 29.3    |
| Net foreign debt stock/GDP                     | 27.8    |
| The ratio of the total tax income (including social security premiums) lost because of underground economy | 16      |

Source: [14–16].

Table 1. Various indicators that affect the perception of tax compliance in Turkey.
above. As a group which does not carry the tax burden and/or does not completely feel it yet, university students know about these issues in terms of economics and finances, and it is important to test these parameters under these conditions in order to understand the perception of tax compliance.

### 2. General analysis construct and hypotheses

#### 2.1. The construct and participatory decision structure

Experimental survey method was used for the subject of this study. The questions in the questionnaire consist of ones that were asked in a similar way in previous studies on the subject. There were seven questions and they used a three-point Likert scale as in [17], which worked on “three-point participation level determination.” Participants were asked to assign points from 1 to 3 to statements: “1” meant “I do not agree,” “2” meant “I somewhat agree,” and “3” meant “I agree.”

The construct of the analysis is to evaluate the level of significance for the questions in the form of hypotheses and crossexamine the related hypotheses.

#### 2.2. Participants

In total, 287 students from three different departments at the Faculty of Economics and Administrative Sciences of Ankara Gazi University took part in the study. The mean age of students was 23 (SD: 23).

As seen in Table 2, the departments were chosen by considering the students of these departments start taking public finance, tax law, and economics classes in their first year. Taking the courses which are public finance and tax law helps students understand the place of taxes in law implementation and public finance, whereas learning economics raises awareness on the roles taxes play in the economic system and helps students understand the relationship of taxes and macroeconomic parameters, therefore affecting tax compliance. Every student who participated has taken the mentioned courses and/or is currently taking it.

| Number of participants by department | Finance department | Labor economics and industrial relations department | Econometrics department |
|--------------------------------------|-------------------|-----------------------------------------------------|-------------------------|
| 112                                  | 102               | 73                                                  |

Source. Author’s identification.

Table 2. Number of participants by department.

---

1The questions included here are mostly the ones used by Diah Nur Pertiwi in 2013 for the dissertation work titled “the Influence of Tax Consciousness, Service Tax Authorities, and Tax Sanctions On Tax Compliance [Survey on Individual Taxpayer Conducting Business Operations and Professional Service in Jakarta].”
As seen in Table 3, it is important that participants are mostly third and fourth year students, as their knowledge about taxes is above a certain level and they can answer the questions with similar awareness.

2.3. Hypotheses

In selection of the questions in the questionnaire according to Likert Scale Formation Technique (Summation Ordering Technique) described in detail in [18], hypotheses were developed in order to assess the fundamental content of the subjects of this study. The hypotheses are given in Table 4.

- Hypotheses H1 and H2 are for testing the tax consciousness, which fundamentally affects tax compliance. Associating paying taxes with being a good citizen and being aware of the contribution of taxes for national development will establish or improve a perception of tax compliance.
- Hypotheses H3, H4, and H5 are indicators for tax payers with established or developed perceptions of tax compliance on whether they comply with the duties of paying taxes as they must be.
- Hypotheses H6 and H7 measure the contribution of factors provided by the tax administration on the perception of tax compliance. Providing correct and fast service at the administration not only establishes/improves trust in the administration but also prevents complexities and strengthens the tax payers’ perceptions of compliance.

| First year | Second year | Third year | Fourth year |
|------------|-------------|------------|-------------|
| Distribution of participants by levels | 62 | 48 | 94 | 83 |

Source. Author’s identification.

Table 3. Distribution of participants by levels of grade.

| Hypotheses |
|------------|
| 1 H1: Being a tax payer who shows the required compliance means being a good citizen |
| 2 H2: A compliant tax payer gained this trait as they think paying taxes helps in national development |
| 3 H3: A compliant tax payer makes their declaration on time |
| 4 H4: A compliant tax payer calculates their debt accurately |
| 5 H5: A compliant tax payer is sensitive about paying their tax debts |
| 6 H6: A compliant tax payer gained this trait because the tax administration provided correct and fast service |
| 7 H7: A compliant tax payer gained this trait because the tax administration provided correct information about calculated tax payments |

Source. Author’s identification.

Table 4. Hypotheses of the lab experiment.
2.4. Limitations of the study

Fundamentally, two things may be provided as limitations of the study. The first limitation is that it is difficult to collect information on tax compliance behavior as encountered in many tax compliance studies [19].

The second limitation is that, as Kogler et al. reported, problems may arise when students are selected as a sample, as they do not have sufficient experience paying taxes. Kogler et al. indicated in 2013 that students fail to concentrate especially on tax evasion scenarios because of their lack of experience [20].

3. Results of the analysis

3.1. General assessment

Frequencies and percentages of the responses to the hypotheses are given in Table 5.

As a general assessment, considering the percentages of the responses, the perception of tax compliance decreases for the statements about the tax administration.

| Statements                                                                 | Responses                          |
|---------------------------------------------------------------------------|------------------------------------|
|                                                                          | Disagree                      | Somewhat agree | Agree                       |
|                                                                          | Frequency | %     | Frequency | %     | Frequency | %     |
| H1: Being a tax payer who shows the required compliance means being a good citizen | 32        | 11.1  | 47        | 16.4  | 198      | 69.0  |
| H2: A compliant tax payer gained this trait as they think paying taxes helps in national development | 49        | 17.1  | 90        | 31.4  | 147      | 51.2  |
| H3: A compliant tax payer makes their declaration on time                   | 19        | 6.6   | 38        | 13.2  | 230      | 80.1  |
| H4: A compliant tax payer calculates their debt accurately                  | 33        | 11.5  | 61        | 21.3  | 192      | 66.9  |
| H5: A compliant tax payer is sensitive about paying their tax debts        | 26        | 9.1   | 44        | 15.3  | 216      | 75.3  |
| H6: A compliant tax payer gained this trait because the tax administration provided correct and fast service | 90        | 31.4  | 88        | 30.7  | 109      | 38.0  |
| H7: A compliant tax payer gained this trait because the tax administration provided correct information about calculated tax payments | 68        | 23.7  | 92        | 32.1  | 126      | 43.9  |

Source. Author’s identification.

Table 5. Statements and the distributions of frequencies of the responses.
The percentage distribution of the hypotheses H1 and H2 seen in **Graph 1** that the statements are related to tax consciousness and implementations toward these may increase the perception of tax compliance.

**Graph 2** shows the relationship between increases in the perception of tax compliance and compliance by tax payers who show voluntary compliance, where the tendency for the participants’ responses showed a relationship in the positive direction.

**Graph 3** shows the distribution of responses to hypotheses testing effects of trusting the tax administration and the administration’s operation on the perception of tax compliance. Participation percentages show that the administration is not considered to be providing a correct and fast service, and this is thought to decrease the perception of tax compliance. It can be seen on the distributions that supplying correct information will prevent complexities and increase the perception of tax compliance.

### 3.2. Assessment by crossexamination

In this section, hypotheses found to be related to each other and with high levels of significance will be assessed by crossexamination. In crossexaminations and comments, three different hypotheses are depicted:

- **H1:** Being a tax payer who shows the required compliance means being a good citizen.
- **H2:** A compliant tax payer gained this trait as they think paying taxes helps national development.

**Graph 1.** The percentage distribution of the H1 and H2 hypotheses. Source. Author’s calculation.

- **H3:** A compliant tax payer makes their declaration on time.
- **H4:** A compliant tax payer calculates their debt accurately.
- **H5:** A compliant tax payer is sensitive about paying their tax debts.

**Graph 2.** The percentage distribution of the H3, H4, and H5 hypotheses. Source. Author’s calculation.
stages will be followed: (1) tax consciousness and tax compliance, (2) tax payer duties and tax compliance, and (3) trusting the tax administration and tax compliance.

3.2.1. Tax compliance and tax consciousness

In this stage, the hypotheses H1 and H2 will be assessed together and the tax compliance and tax consciousness relationship will be observed.

For tax compliance, the financial, economic, and social meaning of taxes must be understood by the tax payers. Leder et al. reported that information campaigns about taxes financing public goods and services increase consciousness of tax payers about the importance of taxes, strengthen their perceptions toward financial change, and increase their compliance levels [21]. Likewise, Karakostas and Zizzo also stated that especially implementations like advertisements support the concept of norm creation toward tax compliance [22].

Significance level (P) and chi-squared ($\chi^2$) numbers indicate that the relationship is positive with a mid-sized magnitude. As Table 6 shows, 45.3% of the participants agreed with both statements. An interesting result arose about the relationship between “being a good citizen” and “contributing to national development.” In total, 6.5% of the participants agreed with being a good citizen, but disagreed with contributing to national development. Considering that participants were university students, it may be argued that even though the result covers a few people, the participants have awareness of the liability of the tax payer in terms of being a good citizen, but they do not completely grasp the economic effects of paying taxes and/or they do not think the collected taxes are used for the development.

3.2.2. Tax payer duties and tax compliance

In this stage, the hypotheses H3 and H5 will be assessed together, and the tax compliance and tax payer duties relationship will be observed. Complying with tax duties on time and in the way it must be done is closely related to efforts to create a social norm. Leder et al. stated that
when there is a low level of tax compliance, strict policies to prevent tax evasion are not enough, but an effort to create a social norm is important [21]. Cummings et al. also stated that inspection bodies are effective on social norms about tax compliance, and these norms are dependent on the tax regime and the state’s willingness to satisfy citizens’ demands [23]. On the other hand, Feld and Larsen indicated that social norms and deterrence should be used simultaneously [24].

The hypothesis H3 denotes the relationship between tax compliance and making declarations on time, which is the first duty in tax responsibilities. The crossexamination here is making declarations on time and being aware of the importance of taxes in national development. Level of significance (P) and chi-squared ($\chi^2$) numbers indicate a positive relationship with mid-sized magnitude. As it may be seen in Table 7, 47.6% of participants believe in the existence of this relationship. Similar to the interesting result of the previous test, 8% of the participants agreed with the timely submission of declarations, while they did not think taxes have a relationship with the national development.

Lewis et al. observed that level of inspections affects tax compliance, and high inspection rates on tax evasion increased the voluntary tax compliance [25]. However, in Kastlunger et al. (2009), it was seen that inspections without increasing and/or strengthening tax compliance lead tax payers to invent new ways to evade taxes [26].

As the sensitivity to pay tax debts, as indicated in H5, is related to being a good citizen and the importance of taxes in national development, Tables 8 and 9 may be considered together. The levels of significance (P) and chi-squared ($\chi^2$) numbers in both tests show that there is a

---

**Table 6.** Tax compliance-tax consciousness relationship.

| A compliant tax payer gained this trait as they think paying taxes helps national development | Disagree | Somewhat Agree | Agree | Total |
|---|---|---|---|---|
| Being a tax payer who shows the required compliance means being a good citizen | Disagree | Frequency 16 | 9 | 7 | 32 |
| | % 5.8% | 3.3% | 2.5% | 11.6% |
| | Somewhat Agree | Frequency 12 | 25 | 10 | 47 |
| | % 4.3% | 9.1% | 3.6% | 17.0% |
| | Agree | Frequency 18 | 54 | 125 | 197 |
| | % 6.5% | 19.6% | 45.3% | 71.4% |
| Total | Frequency 46 | 88 | 142 | 276 |
| | % 16.7% | 31.9% | 51.4% | 100.0% |

$\chi^2 = 57.594$ Level of significance (P) = 0.000

Source: Author’s identification.
positive relationship, while the first relationship has a small magnitude and the second has a mid-sized magnitude. Even though 60.9% participants in the first test agree with both statements in Table 5, the distinctive finding is that 5.4% of the participants agree with sensitivity to pay debts, while disagreeing with being a good citizen relationship. This may be explained by

| A compliant tax payer is sensitive about paying their tax debts | Total |
|---------------------------------------------------------------|-------|
| Disagree | Somewhat Agree | Agree |

| A compliant tax payer makes their declaration on time | Disagree | Frequency | 9 | 9 | 1 | 19 |
|------------------------------------------------------|----------|-----------|---|---|---|-----|
| | % | 3.1% | 3.1% | .3% | 6.6% |
| Somewhat Agree | Frequency | 17 | 11 | 10 | 38 |
| | % | 5.9% | 3.8% | 3.5% | 13.3% |
| Agree | Frequency | 23 | 70 | 136 | 229 |
| | % | 8.0% | 24.5% | 47.6% | 80.1% |
| Total | Frequency | 49 | 90 | 147 | 286 |
| | % | 17.1% | 31.5% | 51.4% | 100.0% |

\[ \chi^2 = 50.782 \text{ Level of significance (P) } = 0.000 \]

Source. Author’s calculation

Table 7. Tax compliance-tax payer duties relationship 1.

| A compliant tax payer is sensitive about paying their tax debts | Total |
|---------------------------------------------------------------|-------|
| Disagree | Somewhat Agree | Agree |

| Being a tax payer who shows the required compliance means being a good citizen | Disagree | Frequency | 9 | 8 | 15 | 32 |
|--------------------------------------------------------------------------------|----------|-----------|---|---|----|-----|
| | % | 3.3% | 2.9% | 5.4% | 11.6% |
| Somewhat Agree | Frequency | 7 | 13 | 27 | 47 |
| | % | 2.5% | 4.7% | 9.8% | 17.0% |
| Agree | Frequency | 9 | 20 | 168 | 197 |
| | % | 3.3% | 7.2% | 60.9% | 71.4% |
| Total | Frequency | 25 | 41 | 210 | 276 |
| | % | 9.1% | 14.9% | 76.1% | 100.0% |

\[ \chi^2 = 37.254 \text{ Level of significance (P) } = 0.000 \]

Source. Author’s calculation

Table 8. Tax compliance-tax payer duties relationship 2.
that the students are aware of tax as a compulsory and required liability, rather than being aware of taxes associated with being a good citizen. Kogler et al. stated that issuing feedback to tax payers in a timely manner about tax inspections creates positive effects on tax compliance [27]. Likewise, Castro and Scartascini found that tax payers who received feedback about deterrents to tax crimes had 5% higher amounts of positive behaviors than those who did not receive feedbacks [28].

Similarly, 44.9% of the participants in the test as shown in Table 6 above agreed with both statements. However, even though 6.7% agreed with sensitivity to pay tax debts, they disagreed with the importance of paying taxes for national development or that it will increase tax compliance. The relationship has the same direction as it is stated in the previous test.

3.2.3. Trusting the tax administration and tax compliance

Hypotheses H6 and H7 were cross-examined, and the relationship between trusting the tax administration and tax compliance was investigated.

Cummings et al. (2009) found that administration’s quality of management has an observable effect on tax compliance [23]. Şafaklı and Kutlay (2014) indicated that the tax administration having strategic plans toward knowledge of tax payers of tax laws will increase tax consciousness and therefore tax compliance [29].

Table 10 shows the relationship of H6, which suggests that the tax administration provides correct and fast service and this increases tax compliance and the test of submitting declarations on time, which is the first duty in tax requirements. The level of significance (P) and

| A compliant tax payer gained this trait as they think paying taxes helps national development | Disagree | Somewhat Agree | Agree |
|--------------------------------------------|----------|----------------|-------|
| A compliant tax payer is sensitive about paying their tax debts | Frequency 14 | 7 | 5 | 26 |
| | % 4.9% | 2.5% | 1.8% | 9.1% |
| | Frequency 16 | 15 | 13 | 44 |
| | % 5.6% | 5.3% | 4.6% | 15.4% |
| | Frequency 19 | 68 | 128 | 215 |
| | % 6.7% | 23.9% | 44.9% | 75.4% |
| Total | Frequency 49 | 90 | 146 | 285 |
| | % 17.2% | 31.6% | 51.2% | 100.0% |

$\chi^2 = 50.849$ Level of significance (P) = 0.000

Source. Author’s calculation.

Table 9. Tax compliance-tax payer duties relationship 3.
chi-squared ($\chi^2$) numbers show that there is a positive relationship, while it has a small magnitude. In total, 34.8% of the participants agreed with both statements. However, even though 22.6% agreed with the importance of submitting declarations on time, they did not agree that the tax administration works fast and correctly. It may be that students who have not experienced the tax implementation are missing trust in the tax administration or they have not developed it yet.

Kogler et al. reported that the highest tax compliance and the lowest tax evasion are experienced in countries where the authority is seen trusted and effective by citizens. They argued that the state should win the citizens’ trust with generally fair implementations and service-oriented behavior [20]. Verboon and Dijke stated the importance of the authorities’ fair treatment of citizens in increasing tax compliance, therefore increasing the effectiveness of their sanctions [30].

When the hypotheses H6 and H7 are considered together, as shown in Table 11, significance level (P) and chi-squared ($\chi^2$) numbers show a positive relationship with high magnitude. In total, 28.3% of the participants agreed with both statements. However, 15.7% of the participants disagreed with both statements. Both statements test the trust in the tax administration, and the number of people who chose to disagree is noteworthy. Leder et al. (2010) stated that if the tax administration shows transparency in disclosing final data about financial transition, it will be able to gain tax payers’ trust, which is extremely important for tax compliance [21]. Litina and Palivos argued that individuals (tax payers) who believe that the tax administration is honest will have very high probability to respond to sanctions positively [31].

| A compliant tax payer makes their declaration on time | Disagree | Somewhat Agree | Agree |
|------------------------------------------------------|----------|----------------|-------|
| Frequency 10 | 4 | 5 | 19 |
| % 3.5% 1.4% 1.7% 6.6% |
| Frequency 15 | 19 | 4 | 38 |
| % 5.2% 6.6% 1.4% 13.2% |
| Frequency 65 | 65 | 100 | 230 |
| % 22.6% 22.6% 34.8% 80.1% |
| Frequency 90 | 88 | 109 | 287 |
| % 31.4% 30.7% 38.0% 100.0% |

$\chi^2 = 19.936$ Level of significance (P) = 0.001

Table 10. Tax compliance and trusting the tax administration relationship 1.
4. Discussion

This study tests tax compliance in terms of university students, who have not yet completely experienced taxpaying implementations. The perception of tax compliance was tested on students who are expected to show high consciousness about taxes because of their qualifications and the departments they study in.

Findings of the study were listed below:

- In terms of tax consciousness and tax compliance, it was seen that students agree that paying taxes completes the concept of being a good citizen.

On the contrary, Leder et al. in which mentioned that importance of information campaigns about taxes financing public goods and services increasing the compliance level, students do not agree with the importance of taxes in national development [21]. This means that convincing information about taxes should be made.

- In terms of tax compliance and tax payer duties, students perceive the sensitivity submitting declarations on time and showing care in paying tax debts.

Feld and Larsen (2012) indicated that social norms and deterrence should be applied simultaneously and Lewis et al. (2009) observed that high inspection rates on tax evasion increase the voluntary tax compliance, and students realizing this as a civic duty tax obligation should be

| A compliant tax payer gained this trait because the tax administration provided correct and fast service | Disagree | Somewhat Agree | Agree |
|---------------------------------------------------------------------------------------------------|---------|----------------|-------|
| Frequency | %      | Frequency | %      | Frequency | %      |
| 45        | 15.7%  | 29       | 10.1%  | 16       | 5.6%   |
| 14        | 4.9%   | 45       | 15.7%  | 29       | 10.1%  |
| 9         | 3.1%   | 18       | 6.3%   | 81       | 28.3%  |
| **Total** | **Frequency** | **%** | **Agree** | **Agree** | **Agree** |
| 68        | 23.8%  | 92       | 32.2%  | 126      | 44.1%  |
| **286**    | **100.0%** | **286** | **100.0%** | **286** | **100.0%** |

\[ \chi^2 = 97.107 \text{ Level of significance } (P) = 0.000 \]

Source. Author’s calculation.

**Table 11.** Tax compliance and trusting the tax administration relationship 2.
inspected and audited [24, 25]. Besides that, it should be noted that on the basis of the findings of the study, students see taxes as a compulsory requirement, rather than a way for being a “good citizen.”

- The situation is complicated in the relationship of the tax administration and tax compliance.

Thoughts in Cummings et al. in which mentioned that administration’s quality affecting tax compliance, Kogler et al. in which reported that how trusted and effective tax authority could make possible an higher tax compliance level in many countries and Verboon and Dijke in which stated the importance of the authorities’ fair treatment of citizens in increasing tax compliance are similar [20, 23, 30]. On the contrary, with these workings, in this paper, students have negative perceptions on the tax administration being transparent, correct, and trustable. They think the success in tax compliance is caused by tax payers themselves, rather than by the tax administration.

On the contrary, Litina and Palivos argued that believing in the honesty of the tax administration makes possible that the sanctions are effective, and Djawadi and Fahr mentioned that how the transparency about public expenditures effects the tax compliance in a positive way; another finding in this stage is that the tax administration does not disclose the data on where taxes are spent according to the students [32].

**Author details**

Fatih Saraçoğlu, Eren Çaşkurlu* and Elif Pürsünlerli

*Address all correspondence to: erencas@gmail.com

1 Department of Public Finance, Faculty of Economic and Administrative Science, Gazi University, Ankara, Turkey

2 Department of Public Law, Faculty of Law, Kırıkkale University, Kırıkkale, Turkey

**References**

[1] James S, Alley C. Tax compliance, self-assessment and tax administration. Journal of Finance and Management in Public Services. 2002;2(2):27-42

[2] Pertiwi DN. The Influence of Tax Consciousness, Service Tax Authorities, and Tax Sanctions on Tax Compliance (Survey on Individual Taxpayer Conducting Business Operations and Professional Service in Jakarta) [Thesis]. Jakarta: State Islamic University Syarif Hidayatullah; 2013

[3] Gideon M. Do individuals perceive income tax rates correctly? Public Finance Review. 2015:1-21. DOI: 10.1177/1091142115615670
[4] Lubian D, Zarri L. Happiness and tax morale: An empirical analysis. Journal of Economic Behavior & Organization. 2011;80:223-243. DOI: 10.1016/j.jebo.2011.03.009

[5] Göksu GG, Saruç T. Türkiye’de Vergiye Uyum: Mülakat Çalışması. Mevzuat Dergisi; 2012. 15/176: http://www.mevzuatdergisi.com/2012/08a/01.htm Accessed: 3 February 2015

[6] Levitt SD, List JA. What do Laboratory experiments measuring social preferences reveal about the Realworld? Journal of Economic Perspectives. 2007;21(2):153-174 http://www.jstor.org/stable/30033722

[7] Güth W, Kirchkamp O. Will you accept without knowing what? The yes-no game in the newspaper and in the lab. Experimental Economics. 2012;15(4):656-666 ISSN 1864-7057

[8] Güth W, Schmidt C, Sutter M. Bargaining outside the lab—A newspaper experiment of a three-person ultimatum game. Economic Journal. 2007;117(518):449-469

[9] Alm J, Bloomquist KM, Mckee M. On the external validity of laboratory policy experiments. Economic Inquiry. 2015;53(2):1170-1186. DOI: 10.1111/ecin.12196

[10] Choo CYL, Fonseca MA, Myles GD. Do students behave like real taxpayers in the lab? Evidence from a real effort tax compliance experiment. Journal of Economic Behavior & Organization. 2016;124:102-114. DOI: 10.1016/j.jebo.2015.09.015

[11] Andreoni J, Erard B, Feinstein J. Tax compliance. Journal of Economic Literature. 1998;36(2):818-860. http://www.jstor.org/table/2565123?seq=1&cid=pdf-reference#references_tab_contents. [Accessed: 02.03.2015]

[12] Önder M. Türkiye’de Kayıt Dışı Ekonomi ve Uluslararası Uygulamalar Işığında Çözüm Önerileri. Mesleki Yeterlilik Tezi: T.C. Maliye Bakanlığı Strateji Geliştirme Bakanlığı; 2012

[13] Republic of Turkey Ministry of Development. The tenth development plan (2014–2018). In: Unregistered Economy Reduction Program Action Plan. 2015. http://www.gib.gov.tr/sites/default/files/fileadmin/beyannamerehberi/2015kayitdisi.pdf [Accessed: 29.09.2017]

[14] Revenue Administration. Budget Revenue (1923–2014). http://www.gib.gov.tr/sites/default/files/fileadmin/user_upload/ vi/gbg1.htm [Accessed: 12.04.2016]

[15] Republic of Turkey. Prime Ministry Undersecretariat of Treasury. Public Debt Management Report. 2016

[16] Schneider F. Tax losses due to shadow economy activities in OECD countries from 2011 to 2013: A preliminary calculation. In: Cesifo Working Paper No. 5649, Category 1: Public Finance. 2015 ISSN 2364-1428

[17] Vagias WM. Likert-Type Scale Response Anchors. Clemson International Institute for Tourism & Research Development, Department of Parks, Recreation and Tourism Management, Clemson University; 2006. https://www.uc.edu/content/dam/uc/sas/docs/Assessment/likert-type%20response%20anchors.pdf [Accessed: 29.09.2017]

[18] Bayat B. Uygulamalı Sosyal Bilim Araştırmalarında Ölçme, Ölçekler Ve “Likert” Ölçek Kurma Tekniği. Gazi Üniversitesi İktisadi Ve İdari Bilimler Fakültesi Dergisi. 2014;16/3:1-24 ISSN 1302-2024
[19] Torgler B. Speaking to theorists and searching for facts: Tax morale and tax compliance in experiments. Journal of Economic Surveys. 2008;16/5:657-683. DOI: 10.1111/1467-6419.00185

[20] Kogler C, Batrancea L, Nichita A, Pantya J, Belianin A, Kirchler E. Trust and power as determinants of tax compliance: Testing the assumptions of the slippery slope framework in Austria, Hungary, Romania and Russia. Journal of Economic Psychology. 2013;34:169-180. DOI: 10.1016/j.joep.2012.09.010

[21] Leder S, Mannetti L, Hözl E, Kirchler E. Regulatory fit effects on perceived fiscal exchange and tax compliance. The Journal of Socio-Economics. 2010;39:271-277. DOI: 10.1016/j.socec.2009.12.003

[22] Karakostas A, Zizzo DJ. Compliance and the power of authority. Journal of Economic Behavior & Organization. 2016;124:67-80. DOI: 10.1016/j.jebo.2015.09.016

[23] Cummings RG, Martinez-Vazquez J, Mckee M, Torgler B. Tax morale affects tax compliance: Evidence from surveys and an artefactual field experiment. Journal of Economic Behavior & Organization. 2009;70:447-457. DOI: 10.1016/j.jebo.2008.02.010

[24] Feld LP, Larsen C. Self-perceptions, government policies and tax compliance in Germany. International Tax and Public Finance. 2012;19:78-103. DOI: 10.1007/s10797-011-9196-6

[25] Lewis A, Carrera S, Cullis JP. Individual cognitive and cultural differences in tax compliance: UK and Italy compared. Journal of Economic Psychology. 2009;30:431-445. DOI: 10.1016/j.joep.2008.11.002

[26] Kastlunger B, Kirchler E, Mittone L, Pitters J. Sequences of audits, tax compliance, and taxpaying strategies. Journal of Economic Psychology. 2009;30:405-418. DOI: 10.1016/j.joep.2008.10.004

[27] Kogler C, Mittone L, Kirchler E. Delayed feedback on tax audits affects compliance and fairness perceptions. Journal of Economic Behavior & Organization. 2016;124:81-87. DOI: 10.1016/j.jebo.2015.10.014

[28] Castro L, Scartascini C. Tax compliance and enforcement in the Pampas: Evidence from a field experiment. Journal of Economic Behavior & Organization. 2015;116:65-82. DOI: 10.1016/j.jebo.2015.04.002

[29] Şafaklı OV, Kutlay K. A research on students’ tax compliance: Case of European university of Lefke. International Journal of Academic Research in Economics and Management Sciences. 2014;3/2:1-7 ISSN: 2226-3624

[30] Verboon PA, Dijke MV. When do severe sanctions enhance compliance? The role of procedural fairness. Journal of Economic Psychology. 2011;32:120-130. DOI: 10.1016/j.joep.2010.09.007

[31] Litina A, Palivos T. Corruption, tax evasion and social values. Journal of Economic Behavior & Organization. 2016;124:164-177. DOI: 10.1016/j.jebo.2015.09.017

[32] Djawadi BM, Fahr R. The impact of tax knowledge and budget spending influence on tax compliance. Iza; 2013 Dp No. 7255