İyi Yönetişim ve Vergi Uyumu: Çanakkale İçin Bir Sıralı Probit Uygulaması

Nilgün SERİM

Nazmi Y. YAĞANOĞLU

ÖZET

Vergi karşısında takınılan tavrı olumlu yönde geliştirmek mükellef ve mükellef gruplarıyla vergi idaresinin büyük ölçüde işbirliğine bağlıdır. Bu çalışmanın amacı; yakın geçmişte yönetişime daha büyük ağırlık ve önem veren vergi idaresi ile mükellefler arasındaki ilişkide yaşanan uyum sorunlarını gidermede yönetişimin rolünü araştırmaktır. Vergi mükelleflerine yönelik bu çalışmamızda, Çanakkale'de basit rassal örnekleme yöntemiyle çeşitlik mesleklerden seçilmiş 970 kişiye uygulanmış bir anketin verileri kullanılarak vergi uyumu ve vergi ahlakını etkileyen faktörlerin sıralı probit yöntemiyle analizi yapılmaktadır. Devlet topladığı vergileri harcayış şeklinde de yönetişimden yararlandığı ölçüde vergi mükelleflerinin vergi ödeme kararlarını olumlu etkiler. Vergi mükellefinin vergi idaresine güven duyması ve vergi mükellefinin vergi idaresinin yönetişim kalitesi hakkında olumlu görüşe sahip olmasının genel olarak vergi uyumu ve vergi ahlakını olumlu şekilde etkilediği sonucuna varılmıştır.

Anahtar Kelimeler: Vergi Ahlakı, Vergi Uyumu, Kurumsal Ve Yönetişimsel Kalite, Gelir İdaresi, Sıralı Probit.

[1]Prof.Dr., Çanakkale Onsekiz Mart Üniversitesi Biga İktisadi Ve İdari Bilimler Fakültesi, Maliye Bölümü

nserim@comu.edu.tr

[2]Yrd.Doç.Dr., Çanakkale Onsekiz Mart Üniversitesi Biga İktisadi Ve İdari Bilimler Fakültesi, Ekonometri Bölümü,

nazmiyagan@gmail.com

Good Governance and Tax Compliance: an Ordered Probit Application in Çanakkale

ABSTRACT

Positive attitude towards tax largely depends on cooperation of tax administration with taxpayers. The objective of this study is to investigate the role of governance in elimination of tax compliance problems experienced in the relationship between tax administration, who has given higher importance and weight on governance in the past decade, and taxpayers. We use the data from a survey of 970 taxpayers of different professions, who were chosen by simple random sampling in Çanakkale, for ordered probit analysis of the factors affecting tax compliance and tax ethics. Turkey. If the government uses governance in spending taxes, this attitude affects taxpayers' decisions of paying taxes positively. We find that taxpayers' trust in tax authority and taxpayers' positive perception of governance quality of tax authority affect tax compliance and tax ethics positively.

Keywords: Tax Morale, Tax Compliance, İnstitutional And Governance Quality, Revenue Administration, Ordered Probit.

1. Introduction

Execution of the services for preparation, implementation, follow-up of the implementation and orientation of the government budget all take place in the domain of the ministry to which the Revenue Administration is attached. Trust felt by the tax-payers in the selection of the fields where the collected taxes are invested and their level of satisfaction about such fields of expenditure is important. Taxpayers have trust in the tax authority only when they believe that it solely acts for their own interest and expectations. Such trust is, in a sense, an indicator that

the taxpayer approves quality of good governance of the tax authority as well. Satisfaction of the taxpayer about good governance quality of the tax authority and existence of a co-operation built on trust between them make the taxpayers more productive with respect to tax payment. In short, good governance based on trust affects level of tax compliance positively.

Establishment of a delicate balance between accountability mechanisms and concept of institutional autonomy at the tax administration and provision of transparency is a necessary condition for good governance. And existence of an effective civil society that audits bureaucrats of the tax authority is another necessary condition. A law system and reasonable tax regulations for complete protection of mutual rights of the parties and enforcement of the contractual provisions in case of any dispute in implementing the contracts made between the public sector and private sector has positive effect on the tax compliance. Furthermore, effective management of department offices, group directorates and other directorates and branches attached thereto in the body of the tax authority all improve public efficiency and, hence, act as a means for economic growth of the country.

This study concentrates upon the effect of good governance quality of the tax authority on the trust felt towards the administration and on the tax compliance. We also test whether increased good governance/improved institutional quality of the tax administration in the last 10-12 years has led to increased satisfaction felt by the taxpayers about public services and, consequently, improvement of voluntary tax compliance?

Our article is presented, offering a fresh angle to analyse the relationship among good governance in tax administration, trust, tax compliance nexus.

2. Literature Review

In face of the increased globalization, it was started to be uttered that establishment of balance between the opportunities and problems that appeared worldwide in 1990's had highest priority among the new tasks of the government. And it was highlighted that effective performance of such task by the government is only possible by building a good governance structures. The World Bank has described the condition of Africa in 1989 as a "governance crisis". As it is, the term governance appeared for the first time in the report of World Bank on economies of the Sub-Saharan African countries (The World Bank report,1989:60). The concept of "good governance" describes conditions for fulfilment of the political and legal reforms by the countries in order that the World Bank and IMF may give loans to them. And United Nations Development Programme – UNDP) also highlights that governance is "a system of values, policies and institutions used by a society to perform its political, economic and social works in the context of relations with public sector, private sector and voluntary sector (civil society) (United Nations Development Programme, 1997:2).

Achievement of **good governance** in the public services aims a public sector operating more efficiently together with its organization and instruments. "Effectiveness of Public Sector" is the collective composition of reliability of the competitiveness of the public services, independency of the public services, quality of the bureaucracy and political commitments of the public sector" (Kaufman vd.2004:255). When the public sector becomes ineffective, trust of the citizens in the public sector reduces, leading to weak cooperation of the public sector and citizens. Tax incompliance increase in extent and, naturally, revenues of the public sector reduce. Such reduction will also give way to reduction in both quantity and quality of the public goods and services provided by the government. This will encourage tax incompliance. And, as a result, a vicious circle shows itself.

With implementation of good governance norms, the government shares its responsibilities with the citizens and non-governmental organizations and governs the state organization and instrument together. According to Putnam (1995), higher social involvement means more developed social capital in that society. In a society generally or in a community specifically, **social capital** is constituted by mutual trust of the persons, social environment enriched by communication among them, loyalty to common values, sense of belonging and association. And non-governmental organizations in the society are driven by these values and act internally in common and perform works together, making positive contribution to the social life and economy.

In the developing and underdeveloped countries, the governance norms of effectiveness, discretionary, participation, transparency and accountability may be established in the politics and bureaucracy only by reinforcement of the non-governmental organizations. "Politicians and bureaucrats who are more awareness of preferences of the citizens

are better in determining the policies to reflect requirements of the citizens" (Schaltegger &Torgler, 2007:119).

Lack of public discussion on quality and quantity of the services produced by the public sector for society due to weakness of the civil society and, for example, failure to know where the taxes they paid are spent would deteriorate social task ethics. Expectation of the public sector that the citizen should not show much interest in the society where the person lives and in the social needs would also bring together problem of withdrawal and alienation of the citizens. "Improvement of the social institutions (channels such as reduction of corruption through polyphony and accountability, supremacy of law, effectiveness and regulatory function of government increase level of the tax compliance), helps reduction of possible encouragements of "going underground", consequently, unrecorded economy" (Benno Torgler, Friedrich Schneider,2008:14). Furthermore, it is also supposed that more participation of the taxpayers in the system through the press and various non-governmental organizations to ensure production of public services in line with their expectations and correct representation of the preferences of the citizens in the services provided by the public sector will reduce tax incompliance.

In some other empirical studies, evidences were found to support those described above to the effect that quality of the public governance Cummings et.al. (2009), quality of the public services Uslaner (2010) and quality of the social institutions Torgler et.al. (2010) are significant determinants of tax compliance.

Mutual **trust** is the most important value in the government-citizen relationship. Government acts in accordance with desires and needs of the people living in the country, and thus builds trust. Sense of trust is an encouraging factor for individuals to voluntarily obey the laws, governmental institutions and social rules. "The most important reason of change of the moral norms is perception of government and developments regarding loyalty to the government. Political governments and institutions that represent the state and their activities affect factor of loyalty to the state. If the citizens feel that the governments and their institutions defend social interests well, the tax compliance will be higher. Otherwise, it will lead to questioning of the traditional moral values" .(**Özsoylu**, 1996:20; Tunçer.2003:107). Positive and constructive approach to the taxpayers (equal, fair and understanding treatment to the taxpayers) will develop their loyalty to and trust in the tax laws and tax system, helping maximize the financial contribution they will make to the treasury. "If the taxpayers are directly involved in the process of political decision, instead of election of their own representatives as a normal routine only, they would perceive task ethics more powerfully" (Feld&Frey,2002;89). Tyran and Feld (2001) found out by analysis that participation in the enactment of the laws cause obedience to the law. To this end, they compared laws enacted externally (by the test authority) and laws selected internally (voted by the participants through referendum). And the result was that the laws imposed by the external authority do not cause widespread obedience to the laws. However, if the laws are accepted by referendum, it causes voluntary compliance. The authors pointed out that voting for the laws may be interpreted as a sign of co-operation and cause hope for co-operation and it will, in turn, increase co-operation. Importance of the institutional aspect of the thing for tax compliance was demonstrated in a study conducted by Pommerehne and Weck-Hannemann (1996) through comparison of Swiss cantons. Their hypothesis was that higher political contribution in form of citizen meetings creates higher tax morality and, consequently, higher tax compliance. It was found by Feld and Kirchgässner (2000) that tax morality was higher in the cantons with higher degree of political control; and they signified that these results may be considered as evidence of higher satisfaction of the citizens and, therefore, public services may be provided more effectively.

Of the tax bureaucracy-taxpayer relationship: satisfaction or dissatisfaction that the approach of tax authorities create on the taxpayers when receiving services is directly influential. Socio-psychological relationship between two sides of the taxing procedure (administration-taxpayer) actually contains a "psychological contract", non-written and invisible. What is expected by the taxpayer from this psychological contract is enactment of the laws expected by the taxpayers and right of participation in the decisions taken for more powerful society in the orientation process of the taxes to the public expenditure. Satisfaction of the tax laws, administrative applications and public expenditures help formation of higher tax morality on part of the taxpayers. Proper maintenance of this psychological contract between the revenue administration and taxpayer is possible only through compliance of certain behaviour codes which involve both parties.

Audit of the taxpayers who declare and pay their taxes on timely basis in same frequency with the taxpayers with weak payment habit impairs mutual trust relationship between the administration and taxpayer. For efficient collection of the tax revenues by the tax administration, improvement of the communication between the taxpayers and bureaucrats and maximum respect of the taxpayer rights to be shown by the administration is very important.

"To consider the taxpayers as consumers who "expect service" from the public sector, and to be sensitive to their needs is important to enhance and develop "financial consciousness" (Cullis& Lewis, 1997:310). Hence, in a system taking heed of the taxpayer rights, it is supposed that the taxpayers will be more aware of their responsibilities and show greater respect to the tax laws. Interaction of the administration and taxpayer affects level of collective tax compliance. Alm and Torgler has pointed out the following suggestions for a tax authority, which desires to be more taxpayer-friendly and service-oriented: Encouragement of the training of the taxpayer; help with respect to payment of the taxes and completion of the tax returns, improvement of service for consulting the administration by phone; improvement of the website of the tax administration; simplification of the taxes; simplification of the tax payment method; simplification of the tax returns and forms, and improvement of skills and knowledge of the taxpayer about taxes and the administration (Alm and Torgler, 2011:647).

Of proper use of the collected taxes as public service and tax compliance; Through data based on surveys in Sweden and United Kingdom, respectively, Vogel and Lewis have founded out that the public opinion is oriented against taxing by means of relationship perceived between the tax payments and government services. They have found that high-income participants have less positive attitude to high tax rates compared to the lower-income participants as the former perceive that they receive less public services compared to the lower-income ones (Vogel,1974:501, Lewis,1978:363). According to result of another survey, Cullis and Lewis pointed out that the participants support high taxes if it is required to increase taxes for financing the public services (Cullis and Lewis, 1985:316-317). However, as to the income tax, particularly those who are employed by wage, when they considered that no return is made by the government to the individuals equal to their tax payments, they feel uneasy about the tax payment (Kirchler,1999:135-136). Satisfaction of the public services is an important factor that affects correct declaration and timely payment of the tax by the citizens willingly, and it may be achieved if only the commitments of the governments with respect to the public services are in line with needs and desires of the citizens. Having opportunity to take decision on the basic political matters for themselves encourages the citizens to collect more information about the public services. Such knowledge is not only required to give a "correct" decision in the ballot, but also to enter into dialogue with other citizens. Thus more knowledge about the political matters does not only increase voluntary contribution to the public property, but the public property determined in this way will have at least some characteristics of the private property. Moreover, as the citizens become more knowledgeable, they feel themselves more responsible for the society in which they live (Feld and Kirchgässner, 2000: 289).

As far as we can see, the studies made so far on how tax compliance can be improved have been deficient in their evaluation with respect to determination of the path and approach to be followed. In fact, knowledge about the taxpayer's point of view and the effect of the factors listed above on the taxpayer behaviours has direct effect on the achievement of the legal and administrative regulations to be made.

Interaction between the tax authority and taxpayer imparts the taxpayers such qualities as collective work, contribution to the decision-making process and acting as stakeholders of the tax authority. And Turkish Revenue Administration has started to develop and dynamic governance approach as one of the most important factors of renovation since 2005 when the Revenue Administration has been restructured.

When the works performed and services provided by the revenue administration in line with the underlying purpose of its establishment are evaluated from the point of view of the taxpayers in terms of use of resources and its targets, has it an appropriate structure for effective audit of the taxpayers? In short, has the concept of governance found its real place in the tax administration? If the taxpayer is satisfied with the services of the tax authority, it means the taxpayer's target to become stakeholder has realized.

Has the conviction that the collected taxes are not used effectively changed? Do the taxpayers think that the public expenditures are made extravagantly? Have the revisions which are made in the tax system in 2000s and the reform made in 2005 for organizational restructuring in the tax administration satisfied the taxpayers in the matters of effectiveness, efficiency, transparency, accountability and participation? Do the taxpayers consider the tax administration with which they are acquainted due to the tax-related procedures and transactions an institutionalized structure in accordance with the governance approach of the tax authority? Does the tax authority as a whole satisfy expectations of the taxpayers in terms of the governance concept? Does the understanding of governance developed in the tax authority in Turkey satisfy the taxpayers and increase voluntary tax compliance? Has governance played positive role in elimination of the compliance-related problems encountered in the tax authority-taxpayer relationship? The primary objective of this study is to find answers to all these questions. The survey conducted sc-

rutinizes whether the governance has created the expected positive effect in the taxpayer-tax authority relationship.

3. Methodology

Ordered probit model has been popularly used in the applied studies for analysis of interrelations and interactions between the tax compliance and individual and socio-economic factors. Ordered probit models are quite useful to analyse factors that affect the categorical tax compliance dependent variable (Bilgin, 2011:171). Among the examples where such type of models are used in connection with tax compliance are (Bayraklı et.al., 2004; *Özdemir* ve Ayvalı, 2007; Torgler et.al., 2008; Bilgin, 2011; *Çoban* and Deyneli, 2013). "Probit analysis allows for estimation of the effect of independent variable necessary to reach to a certain level of the dependent variable..." (Kalaycı,2011:302). As the measure of knowledge about how taxes are used is an ordered categorical variable which we use as the dependent variable in this article, we used the ordered probit model in the analysis.

Ordered probit, a special case of the probit estimation, is an estimation method where a variable consisting of results of a survey typically with responses orderable according to Likert scale is used as dependent variable. As it is practically difficult to interpret the coefficients estimated by Probit method, we calculate the marginal effects which are easier to interpret. Marginal effects show change in the probability of an individual with average characterises to reach to a certain value of the dependent variable when an independent variable is increased by one unit. As the dependent variables used in this study are designed according to 3-point Likert scale, it is actually possible to examine how changes in the independent variables affect possibility of taking each of these three values individually. However, we prefer concentrating on the change in the possibility of taking the value 3, the highest one, by an average individual.

The following estimate of the ordered probit model shows that the relevant variables (having access to information and documents as per the Right to Information Act; positive recognition of the participation of the people in the tax-related matters; considering the services given by the tax offices as sufficient; thinking that the citizen-based understanding of management of the tax office has developed in the last ten years; thinking that the understanding of management has developed for provision of the services of tax authority to the users most cost-effectively and with the best quality and efficiency and effectiveness in the last ten years; thinking that the tax authority has developed in setting and fulfilling targets (strategic planning and management in the last ten year) are important on thinking that the taxes are used for expenditures to the benefit of the society.

4. An Application on Çanakkale

Survey in the city of Çanakkale was conducted in the second half of 2016. The questionnaire was issued to individual taxpayers, consisting of three groups of questions (questions to measure role of governance in the relationship of the taxpayer and tax office; questions to measure general opinion about e-state system, and, finally, questions to measure use of e-state system) as well as questions to measure demographic variables.

4.1. Participants of the Survey

Survey on the taxpayers was conducted with 970 persons consisting of workers, officials, shopkeepers and self-employed people living in various neighbourhoods of the central district in the city of **Çanakkale**. No question was posed to the housewives/retired/unemployed people; taxpayers subject to corporate tax were also excluded from the survey. Out of 970 questionnaires, 954 were deemed proper for evaluation due to missing data in others. Questions were asked to the subjects to measure role of governance in the relationship of the taxpayer and tax office. Data used in the survey was collected according to the method of Simple Random Sampling. However, we may say that the taxpayers participated in the survey conducted in the central district, **Çanakkale** reflect general profile of the society in terms of age, sex, marital status, education level, income level and type of taxpayer.

4.2. Limitations of the Survey.

In the city of **Çanakkale**, there are 44,364 active taxpayers (G.İ.B,2017:166). As 3133 of these taxpayers are subject to Corporate Tax (G.İ.B,2017:169), they are excluded from the survey. Population of the survey is 41,231 persons. While the smallest sample size should be 665 with the sampling error of ±5% or 1038 with the sampling error of ±4% at the confidence level of 99% in order to represent **Çanakkale** completely (Bayram, 2012: 26), the evaluation was made on 954 taxpayers since the questionnaire not eligible for use in our survey are excluded.

As the Activity Reports issued by the Revenue Administration shows number of taxpayers on city basis, the number of taxpayers could not be found out precisely according to the types of taxpayers in each neighbour. For this reason, it has not been possible to select the taxpayers by using the stratified sampling method, a type of the probability sampling, as originally considered when starting the survey and, as a result, random selection method has been used for selection of the sample.

The taxpayers are considered to have acted honestly when responding to the survey. In this type of survey, it is not possible to exactly sort out the responses given for social recognition. Effort has been made in order to reflect the truth better by using concrete variables such as justice of the taxes they paid, complexity of the tax legislation, standardization of the taxpayer procedures, knowledge of the fields of use of the taxes, etc.

4.3. The Questionnaire and Analytical Method of the Survey

For data collection, the questionnaire was developed by scanning the related literature in detail. The resulting questionnaire describes each scale with suitable headings for the scale. Internal consistency of the scales, formed by use of Reliability Analysis and Cronbach's Alpha values, was found as 0.7492. The most widely used method in determining reliability of the scales is the method of Cronbach's Alpha Factor. Cronbach's alpha factor varies between 0 (zero) and 1 (one). That Cronbach's alpha value is 70% or above means the scale is reliable (Kurtuluş, 2010:184). Lower limit should be 0.70 to consider a scale as a reliable one (Hair et.al., 2009: 265).

As we have aimed to analyse multiple variables simultaneously in the research we conducted on the taxpayers, we have applied the survey (scanning) method, which as the most suitable method in terms of use of time and material resources, considering the sampling size as well. Because the behavioural factors constitute a wide range in the questionnaire, the response patterns configured on basis of three point Likert were mostly included in the form. We have asked 16 questions under the heading of questions for measuring role of governance in the relationship between the taxpayer and tax office, 18 questions under the heading of questions for measuring general opinion about e-state system and 13 questions under the heading of questions for measuring use of e-state system. All these questions are scaled with 3-point Likert type. And the remaining 7 questions are for determination of the demographic characteristics.

Survey technique based on face-to-face negotiation was used in practice to reach the highest rate of response. We reached the taxpayers through specially trained interviewers in addition to the surveyor, explaining to the participants that the survey was conducted for academic purposes, that it is important that the choice they would mark on the questionnaire should be the most accurate one, that the results shall be analysed collectively and the names of the taxpayers will be kept secret.

Data entry for the questionnaire results was carried out by use of Excel and Stata; the collected data were analysed by using Stata 11, statistical tables were prepared and the results were interpreted. In our practical study to analyse role of the governance factor in the relationship of the taxpayers and tax office, we used ordered probit model.

4.4 Findings

4.4.1. Demographic Profile of the Participants

Demographic profile of the taxpayers included in the survey conducted in the city of **Çanakkale** are tabularized below on Table 1.

Only a fifth of the sample are females, but there are enough in the sample (203) to compare them to males. About three quarters of the sample is in the middle age brackets (31 to 60). About three quarters of the participants are married. More than 80% has about at least high school degree. 78% fall into the category of tradesman/shopkeeper/commercial. About a third (35.95%) rents both home and his/her workplace. Income levels are not too high, with 87.43% reporting less than 4000 TL a month.

4.4.2. Findings of the Survey Containing Ordered Probit Analyses

The variables in the survey except for sex, age, marital status, education, profession, property ownership, monthly income were formulized by the questionnaire questions according to 3-point Likert scale. Accordingly, the answer "I don't agree" corresponds to "1", the answer "I neither agree nor don't agree" to "2", and the answer "I agree" to "3".

In the estimation, the dependent variable is consisted of answer given to the expression of "I agree the taxes are

used for expenditures to the benefit of society" (question 7) according to the 3-point Likert Scale. In this sense, the dependent variable shows level of approval of the spending fields of the taxes. With respect to this variable, "1" is the most negative choice and "3" is the most positive choice.

Same logical ordering is applicable for all variables where 3-Point Likert Scale was used in the survey.

And the independent variables include demographic factors, thoughts of the taxpayers about various matters listed under the six main headings considered to possibly affect the tested dependent variable [(accessibility to information and documents as per the right to information act (question 6), positive acknowledgement of the people's participation in the tax-related matters (question 8), considering the services given by the tax offices as sufficient (question 9), opinion on development of the citizen-oriented management approach of the tax authority in the last ten years (question 14), opinion on development of the management approach for provision of the tax authority services to the users in the most cost-efficient way, in highest quality and in the most effective way (question 15), opinion on development of the tax authority to set and fulfil targets (strategic planning and management) in the last ten years (question 16)].

Table 1. Demographic Characteristics of the Taxpayers Who ConstituteThe Sample in the City of Çanakkale

Demographics		Freq.(n)	%
Sex			
female		203	21.28
male		751	78.72
	Total	954	100
Age			
18-30		189	19.81
31-40		414	43.4
41-60		315	33.02
61+		36	3,77
	Total	954	100
Marital Status			
never married		193	20,23
married		699	73.27
divorced		47	4.93
widow(spouse dead)		15	1,57
	Total	954	100
Education			
Primary and/or secondary school		167	17.51
High School		422	44.23
University and Junior College		357	37.42
Graduate (post-graduate, doctoral degr. & med. spec.)		8	0.84
	Total	954	100
Profession			
Worker(skilled-unskilled)		66	6.92
Official		19	1.99
Tradesman/shopkeeper/commercial		745	78.09
Professional Occupation		41	4.3
Other		83	8.7
	Total	954	100
Property Ownership			
Owns Home		230	24.11
Owns workplace		31	3.25
Owns both home and workplace		139	14.57
Rents home		88	9.22
Rents workplace		123	12.89
Rents both home and workplace		343	35.95
	Total	954	100
Monthly Income			
(1000TL or less)		96	10.06
(1001TL-2000TL)		332	34.8
(2001TL-3000TL)		298	31.24
(3001-4000 TL)		108	11.32
(4001-5000 TL)		61	6.39
(5001 TL+)		59	6.18
	Total	954	100

Table 2. Ordered Probit Coefficient Estimates and p-values (dep. Var: Level of Approval of the Spending Areas of Taxes)

	Models													
	1		2		3		4		5		6		7	
Variables	Coef.	p-val.	Coef.	p-val.	Coef.	p-val.	Coef.	p-val.	Coef.	p-val.	Coef.	p-val.	Coef.	p-val.
Sex														
Female	0.4567	0.000	0.5121	0.000	0.5867	0.000	0.3684	0.001	0.3089	0.006	0.3020	0.006	0.3069	0.006
Age														
31-40	-0.0798	0.490	0.3660	0.005	0.2227	0.079	-0.0992	0.398	-0.2719	0.025	-0.0472	0.691	0.0442	0.707
41-60	-0.2819	0.022	0.0552	0.684	-0.0702	0.598	-0.3052	0.015	-0.3815	0.003	-0.2159	0.090	-0.2640	0.036
61+	-0.0118	0.962	0.0184	0.944	0.1531	0.572	-0.0259	0.917	-0.3944	0.121	-0.1075	0.670	-0.1843	0.465
Marital Status														
Never married	0.0599	0.622	0.2276	0.087	-0.0126	0.924	0.2082	0.094	-0.0985	0.441	-0.0048	0.969	0.0742	0.552
Divorced	0.4714	0.022	0.3226	0.134	0.8234	0.000	0.7441	0.000	0.3784	0.087	0.5282	0.014	0.4447	0.039
Widow(spouse dead)	-0.8289	0.010	-5.6124	0.958	-0.2380	0.494	-0.1167	0.726	-0.4270	0.204	-0.3200	0.339	-0.2514	0.452
Education														
Primary and/or secondary school	0.2012	0.073	-0.0352	0.775	0.0398	0.744	0.2269	0.046	0.3037	0.012	0.3407	0.004	0.2208	0.062
University and Junior College	-0.2915	0.003	-0.0301	0.781	-0.0063	0.953	-0.1944	0.055	-0.1983	0.053	-0.1344	0.187	-0.2633	0.009
Graduate (post-graduate, doctoral degr. & med. s	0.3814	0.403	0.2593	0.581	1.8070	0.000	-0.0602	0.896	0.7912	0.089	0.5624	0.224	0.3594	0.435
Profession (excluding housewives, retired and unemployed)														
Worker(skilled-unskilled)	-1.3496	0.000	-1.1960	0.000	-0.6939	0.033	-1.1581	0.000	-1.8182	0.000	-1.7955	0.000	-1.0190	0.002
Tradesman/shopkeeper/commercial	-1.0696	0.000	-0.8890	0.002	-0.5844	0.035	-0.6618	0.019	-1.5279	0.000	-1.3552	0.000	-0.6210	0.028
Professional Occupation	-1.5543	0.000	-0.9218	0.007	-1.0355	0.002	-0.9541	0.005	-2.0145	0.000	-1.9375	0.000	-1.3361	0.000
Other	-1.2113	0.000	-1.0845	0.001	-0.7225	0.022	-0.9088	0.004	-2.0020	0.000	-1.6323	0.000	-0.6794	0.033
Property Ownership														
Owns workplace	-0.5403	0.023	-1.1565	0.000	-0.8039	0.001	-0.6893	0.004	-0.2610	0.290	-0.3633	0.124	-0.4064	0.092
Owns both home and workplace	-0.5542	0.000	-0.6955	0.000	-0.5210	0.000	-0.5438	0.000	-0.7876	0.000	-0.6646	0.000	-0.6641	0.000
Rents home	-0.6787	0.000	-0.9905	0.000	-0.8291	0.000	-0.5026	0.003	-0.7729	0.000	-0.4822	0.005	-0.4417	0.009
Rents workplace	-0.8728	0.000	-1.0729	0.000	-0.7087	0.000	-0.8071	0.000	-0.8584	0.000	-0.8557	0.000	-0.6880	0.000
Rents both home and workplace	-0.3975	0.000	-0.4834	0.000	-0.3347	0.002	-0.3639	0.001	-0.6752	0.000	-0.5615	0.000	-0.4581	0.000
Monthly Income														
(1000TL or less)	0.2866	0.050	0.8335	0.000	-0.1010	0.511	0.1708	0.252	0.2316	0.123	0.2335	0.116	0.1975	0.185
(1001TL-2000TL)	-0.0127	0.898	0.2825	0.009	0.0500	0.636	0.0149	0.883	0.0162	0.874	0.0801	0.439	-0.0025	0.980
(3001-4000 TL)	-0.3273	0.024	-0.2879	0.071	-0.5006	0.002	-0.1232	0.408	-0.4290	0.004	-0.3578	0.018	-0.3028	0.042
(4001-5000 TL)	0.4016	0.029	0.6312	0.003	0.8278	0.000	-0.0670	0.725	0.0767	0.717	0.4616	0.012	0.3231	0.095
(5001 TL+)	-0.8702	0.000	-0.4616	0.033	-0.4232	0.035	-0.7783	0.000	-0.9475	0.000	-0.9264	0.000	-1.0512	0.000
Question6			0.9580	0.000										
Question8					0.9163	0.000								
Question9							0.4834	0.000						
Question14									0.6760	0.000				
Question15											0.5853	0.000		
Question16													0.5690	0.000

Note: Dependent variable: **Level of approval of the spending areas of the taxes,**. 3-point Likert scale was used. Reference group: male, younger than 30 years, married, official (full-time employee), home owner, salary TRY 2001-3000. Significance level: * 0.05 < p < 0.10, ** 0.01 < p < 0.05, *** p < 0.01.

Table 3. Ordered Probit <u>Marginal Effects</u> and p-values (dep. Var: Level of Approval of the Spending Areas of Taxes)

Variables	Marg. (1)	p-val. (1)	Marg. (2)	p-val. (2)	Marg. (3)	p-val. (3)	Marg. (4)	p-val. (4)	Marg. (5)	p-val. (5)	Marg. (6)	p-val. (6)	Marg. (7)	p-val. (7)
Sex														
Female	.1264482	0.000	.1117819	0.254		0.000	.1003142	0.000	.0808434	0.003	.0804401	0.003	.0837575	0.003
Age														
31-40	-.0244687	0.488	.0949935	0.220	.0592021	0.083	.0293523	0.395	-.075689	0.022	-.013513	0.690	.013048	0.708
41-60	-.0836331	0.017	.0141506	0.699	-.0182067	0.593	.0870094	0.011	.1019771	0.001	.0600907	0.080	.0747712	0.029
61+	-.0036148	0.962	.0047046	0.945	.0427098	0.594	-.0076481	0.917	-.0944902	0.059	.0296148	0.657	-.0505314	0.430
Marital Status														
Never married	.0186721	0.626	.061436	0.284	.0033014	0.923	.0647945	0.108	.0272264	0.429	.0013804	0.969	.0222004	0.558
Divorced	.1643032	0.036	.0929327	0.306	.277669	0.001	.2657067	0.001	.1213038	0.122	.1775411	0.029	.1491709	0.062
Widow(spouse dead)	-.1776841	0.000	-.1817478	0.000	.0557818	0.439	-.033212	0.713	.0998833	0.109	.0800937	0.262	.0667596	0.398
Education														
Primary and/or secondary school	.0647534	0.085	-.0088485	0.778	.0105615	0.747	.0711806	0.057	.0927989	0.018	.1061243	0.007	.0685258	0.075
University and Junior College	-.0872904	0.002	-.0076187	0.785	.0016333	0.953	.0567379	0.051	.0549771	0.048	.0380765	0.181	-.0754147	0.007
Graduate (post-graduate, doctoral degr. & med. spec.)	.131552	0.443	.0736762	0.634	.6335706	0.000	.0175047	0.894	.2808904	0.128	.1927906	0.280	.1191181	0.477
Profession (excluding housewives, retired and unemployed)														
Worker(skilled-unskilled)	-.2413456	0.000	-.1709464	0.342	-.1334417	0.002	-.2137397	0.000	-.2357011	0.000	.2394909	0.000	.1969291	0.000
Tradesman/shopkeeper/commercial	-.3755971	0.000	-.2732208	0.115	.1743047	0.058	-.2202768	0.030	-.518703	0.000	.4638635	0.000	-.20385	0.043
Professional Occupation	-.2425645	0.000	-.1474934	0.335	.1630337	0.000	.1874129	0.000	-.2257038	0.000	.2287014	0.000	.2145769	0.000
Other	-.23484	0.000	-.169384	0.328	.1388938	0.001	.1903981	0.000	-.2518169	0.000	.2400637	0.000	.1545073	0.003
Property Ownership														
Owns workplace	-.1341895	0.003	-.1609709	0.350	.1412952	0.000	-.1524952	0.000	-.06633	0.232	.0895598	0.066	.1011574	0.040
Owns both home and workplace	-.1449961	0.000	-.1362406	0.282	.1133145	0.000	.1368409	0.000	-.1707353	0.000	.1535675	0.000	-.1577465	0.000
Rents home	-.1646532	0.000	-.1628167	0.317	.1527272	0.000	.1250351	0.000	-.1616318	0.000	.1155557	0.001	.1110032	0.002
Rents workplace	-.2022768	0.000	-.1786297	0.307	.1420264	0.000	-.1829832	0.000	-.1792062	0.000	.1818719	0.000	.1606636	0.000
Rents both home and workplace	-.1171055	0.000	-.1145925	0.225	.0839541	0.002	.1038234	0.000	-.1751762	0.000	.1504948	0.000	-.1276667	0.000
Monthly Income														
(1000 TL or less)	.0950362	0.065	.2697975	0.053	.0254985	0.494	.0534007	0.274	.070454	0.147	.0719409	0.140	.0615631	0.208
(1001 TL-2000 TL)	-.003911	0.898	.0746683	0.221	.0132091	0.638	.004446	0.883	.0045906	0.874	.0232451	0.443	.0007321	0.980
(3001-4000 TL)	-.0911753	0.012	-.0653974	0.303	-.1080998	0.000	.0352988	0.389	.1044505	0.001	.0909521	0.007	.0807085	0.023
(4001-5000 TL)	.1375823	0.044	.1990849	0.124	.2782499	0.001	.0194957	0.719	.022347	0.725	.1521665	0.024	.1049273	0.124
(5001 TL+)	-.1906393	0.000	-.0950695	0.302	.0921833	0.009	-.1692715	0.000	-.1782052	0.000	.1792461	0.000	.1987265	0.000
Question6	.2432597	0.187												
Question8						0.000								
Question9								0.000						
Question14									.1915629	0.000				
Question15											.16812	0.000		
Question16													.1674358	0.000

Note: Dependent variable: Level of approval of the spending areas of the taxes,. 3-point Likert scale was used. Reference group: male, younger than 30 years, married, official (full-time employee), home owner, salary TRY 2001-3000. Significance level: * $0.05 < p < 0.10$, ** $0.01 < p < 0.05$, *** $p < 0.01$. Marginal effects: calculated according to the 3rd scale indicating the highest level of voluntary tax compliance.

Table 2 and Table 3 give ordered probit estimates and their marginal effects for 7 separate models designed different-ly, using the dependent variable described above. Furthermore, p-values are also given next to them to control signi-ficance for each factor estimation and marginal effect. While Table 2 is useful to control significance of the variables in general, we will rather make comment on Table 3. The reason is that the marginal effects in Table 3 show marginal effect of each independent variable on the possibility of the dependent variable to take value "3" (i.e. "I agree").

Model 1 contains demographic variables only. Model 2 through Model 7 were formed by adding a different vari-able each time to these variables to observe the effect of the added variable. Each added variable consists of a qu-estion asked to measure role of governance in the relationship between the taxpayer and Internal Revenue Service. Details related to these questions were given when talking about the independent variables.

Looking at the model 1 in Table 2, we see the facts that the respondent got never married (reference group: mar-ried), is undergraduate (reference group: high school graduate), or earns between TRY 1001-2000) (reference group: TRY 2001-3000) made no significant effect on the answer "I agree" given to the statement "I agree" the taxes are used for expenditures to benefit of the society"

The coefficient related to possibility of thinking that the taxes are used for to benefit of the society is statistically significant between **women versus men, those in the age group 41-60 versus the reference group (below 30 years)** with marginal effects of 12.6% and -8.3%, respectively. Compared to the men, the women tend to approve the areas of expenditure of the tax income more. It is also evident that compared to those below 30 years, those in the age group of 41-60 are more likely to think that the taxes are **not** used for socially useful expenditures.

- Compared to the reference group (married), the possibility that a divorced person thinks that the taxes are used for expenditures useful to the society is 16% higher at 5% significance level, while widows are 1.7% less likely to have this belief than the reference group.

- Taxpayers, irrespective of their **profession**, think that the taxes are used for expenditures to the benefit of the society. However, as it may be seen from the significance of the marginal effects, compared to the reference group (full-time employee) with significance level of 1%, tendency of other professional groups to think that the taxes are used to benefit of the society is less, in the range of 23.4%-37.50%.

- The taxpayers think that the taxes are used to the benefit of the society. However, as it may be seen from the significance of the marginal effects, compared to the reference group (home owners) with significance level of 1%, other **property ownership groups** have less tendency to think that the taxes are used for expenditures to benefit of the society, in the range of 11.7%-20.22%.

- **Education** of the taxpayer (except for the group of post-graduate, doctoral degree and medical specialists) has a statistically significant effect on the dependent variable. That the graduates of primary school and/or secondary school look at the matter more optimistically (possibility of thinking that the taxes are used for expenditures to benefit of the society is higher by 6% than the graduates of higher school appears as an interesting detail. And that the marginal effect of the graduates of university and junior college is negative indicates that the effect is in negative direction when the education goes higher.

- **Income** of the taxpayer [(except for the range of TRY 1001-TRY2000) has a statistically significant effect on the dependent variable. Possibility of thinking that the taxes are used for expenditures to benefit of the society, compared to the reference group (with earning of TRY 2001-3000) at significance level of 5%, is higher by 13.7% for the group of TRY 4001-5000, at significance level of 10%, and higher by 9.5 for the group TRY1000 and below. However, thinking that the taxes are used for expenditures to the benefit of the society, compared to the reference group at significance level of 5%, reduced by 9.1 in the income range of TRY 3001-4000 and at significance level of 1% and by 19% for the income range of TRY 5001 and above. It may be interpreted that the taxpayers in the groups of lower income and upper-lower income approve the spending fields of the taxes more, but the groups of medium and upper income do not approve it.

- Looking at the model 2 in Table 3, the sign of the coefficient is negative for the variable of tendency to think that the taxes are used for expenditures to the benefit of the society on part of the persons thinking

more positively about accessibility to information and documents according to the right to information act (question 6). The variable is statistically significant (Table 2). However, the marginal effect is not.

- Examining the model 3 in Table 3, among those who positively welcome participation of the people in the tax-related matters (question 8), possibility of those who think that the taxes are used for expenditures to benefit of the society at significance level 1% is higher and statistically significant (with marginal effect 24.02%).

- Examining the model 4 in Table 3, among those who consider the services provided by the tax offices are sufficient (question 9), possibility of those who think that the taxes are used for expenditures to benefit of the society at significance level of 1% is higher and statistically significant (with marginal effect 14.3%).

- According to the model 5 in Table 3, among those who consider that citizen-oriented management approach of the tax authority has developed in the last ten years (question 14), possibility of those who think that the taxes are used for expenditures to benefit of the society at significance level of 1% is higher and statistically significant (with marginal effect 19.1%).

- According to the model 6 in Table 3, among those who think that improvement has been made in providing of the services by the tax authority to the users in a most cost-effective, efficient and effective way in the last ten years (question 15), the possibility of thinking that the taxes are used for expenditures to benefit of the society is higher and significant at significance level of 1% (with marginal effect 16.8%).

- Examining the model 7 in Table 3, among those who think that development has occurred in the matter of setting and fulfilment of target by the tax authority (strategic planning and management) in the last ten years (question 16), the possibility of thinking that the taxes are used for expenditures to benefit of the society is higher and significant at significance level of 1% (with marginal effect 16.7%).

Looking at the models in general:

- Women have more positive opinion compared to men.

- It is understood that those having most negative opinion by marital status are widows with their spouse died, and those having the most positive opinion are the divorced.

- Those having the most negative opinion by education are graduates of university and junior college and those having the most positive opinion are those with postgraduate degree; however, the effect of this group has not be found significant, except for the model 3.

- All professional groups, compared to the reference group (full time employees) think more negatively. The professional group thinking most negatively is tradesman/shopeeker/commercial people.

- Compared to the taxpayers in the reference group (home owners), we can say that other taxpayers in the property ownership think more negatively. In this sense, the most negative group is taxpayers working at a workplace for rent.

- As to the income status, it is understood that the persons earning TRY 5001 and above constitute the most pessimistic group.

5.Conclusion

Accountability of the public sector is recognized as one of the most important indicators of financial performance. In a society where appropriateness of use of public resources is questioned by the non-governmental organizations, press and judicial system, voluntary tax payment will enhance and improvement in the task ethic, a social capital variable, will also increase economic growth, together with the increased tax revenue. The taxpayers will associate

themselves with the governmental agents to the extent they are participants in the political and administrative process and express their own preferences. Collective sense of responsibility among the individuals and bureaucrats for the social requirements will improve and thought of better management of the system and satisfaction of the public expenditures will enhance the tax compliance. It will reduce unrecorded economy. A considerable reduction in size of the unrecorded economy will lead to a significant increase in the tax revenues and it will, in turn, improve quality and quantity of the public goods and services, encouraging the economic growth as a result.

When the taxpayers feel higher sense of satisfaction for receiving public service in consideration of the taxes they pay, they feel more responsibility in paying their taxes honestly and entering into cooperation with the tax authorities. And it also plays an important role for enhancement of tax compliance. Thought of the taxpayers to the effect that "taxes are used for expenditures to the social benefit" means they approve fields of public expenditures where the tax revenues are used. And it is also an indicator that the taxpayers are satisfied of the governance quality of the public authority and, consequently, have trust that the public authority takes correct decisions on its selection of fields of expenditures.

With the use of e-government by the tax administration, the recognition and collection of public claims have become faster. It has also made possible to cut tax-related costs (mail, paperwork etc.), and to decrease the effort and time spent on tax-related activities by both the tax administration and taxpayers. This, in turn, has helped to improve the efficiency and productivity of tax offices. It has also helped the tax administration towards its goal of setting up an administrative information system which enabled the tax administration to make fast and healthy decisions based on information about taxpayers that is available via computer network. Taxpayers no longer face unnecessary tax inspections and audits. The importance given to taxpayer services has also increased and it has been possible to offer supportive services to taxpayers

The research shows that trust in the tax authority and positive perception of the governance quality of the tax authority affect tax compliance and tax ethics positively. This conclusion signifies importance of reinforcing the perception of the governance quality of the Revenue Administration in order to reach a higher level of tax compliance from that of the present status.

REFERENCES

ALM, J., TORGLER, B. (2011). "Do Ethics Matter? Tax Compliance and Morality," Journal of Business Ethics, 101:4- 635–651.

BAYRAM, N. (2012). Sosyal Bilimlerde SPSS ile Veri analizi (Cd Ekli), 3.baskı, Ezgi Kitabevi Yayınları, Bursa.

BAYRAKLI, H. H., SARUÇ, N. T., SAĞBAŞ, İ. (2004). "Vergi Kaçakçılığını Etkileyen Faktörlerin Belirlenmesi ve Vergi Kaçakçılığını Önleme Yöntemleri", 19. Ulusal Maliye Sempozyumu, Antalya.

BİLGİN, H. K. (2011). "Türkiye'de Vergi Ahlakının Belirleyicileri", ODTU Gelişme Dergisi, 38:2- 167-190.

CULLIS, J., LEWIS, A. (1985). "Some Hypotheses and Evidence on Tax Knowledge and Preferences", Journal of Economic Psychology, 6:3- 271–287.

CULLIS J. G., LEWIS, A. (1997). "Why People Pay Taxes: From A Conventional Economic Model To A Model Of Social Convention", Journal of Economic Psychology, 18- 305-321.

CUMMINGS, R. G., MARTINEZ-VAZQUEZ, J., MCKEE, M., TORGLER, B. (2009). "Tax Morale Affects Tax Compliance: Evidence from Surveys and an Arte-Factual Field Experiment", Journal of Economic Behavior & Organization, 70- 447–457.

ÇOBAN H., DEYNELİ F. (2013). "Vergi Ahlakı ve Sosyal Sermaye", Finans Politik ve Ekonomik Yorumlar Dergisi, 50: 584-109-118.

FELD, L. P., FREY, B. S. (2002). "Trust Breeds Trust: How Taxpayers Are Treated", Economics of Governance, 3- 87–99.

FELD, L. P., KIRCHGÄSSNER, G. (2000). "Direct Democracy, Political Culture, And The Outcome Of Economic Policy: A Report On The Swiss Experience", European Journal of Political Economy, 16-287-306.

GELİR İDARESİ BAŞKANLIĞI (2017). Gelir İdaresi Başkanlığı 2016 Yılı Faaliyet Raporu, Şubat 2017 Yayın No:247 Strateji Geliştirme Daire Başkanlığı, Ankara.

HAIR, J. F.. ANDERSON, R. E. , TATHAM, R. L., BLACK, W. C. (2009). Multivariate Data Analysis, Prentice Hall, New Jersey.

KAUFMAN, D., KRAAY, A., MASTRUZZI, M. (2004). "Governance Matters III: Governance Indicators for 1996,1998 and 2002", The World Bank Economic Review,18: 2-253 – 287.

KAYIŞ, A. (2011). "Probit Regresyon Modeli, Probit Regression Models", **Ş. KALAYCI** (Ed.), SPSS Uygulamalı Çok Değişkenli İstatistik Teknikleri, 5. Baskı, Asil Yayın Dağılım, Ankara.

KIRCHLER, E. (1999). "Reactance To Taxation: Employers' Attitudes Towards Taxes", Journal of Socio-Economics, 28: 2-131–138.

KURTULUŞ, K. (2010). Araştırma Yöntemleri, Türkmen Kitabevi, İstanbul.

LEWIS, A. (1978). "Perceptions of Tax Rates", British Tax Review, 6-358–366.

ÖZDEMİR A. R., AYVALI H. (2007). "Vergi Bilincine Sahip Bireylerin Fiş Veya Fatura Alma Duyarlılığını Etkileyen Faktörler", Maliye Dergisi, 153-51-73.

ÖZSOYLU A. F. (1996). Türkiye'de Kayıtdışı Ekonomi, Bağlam Yayınları, Ankara.

POMMEREHNE, W.W., HANNEMANN, H. W. (1996). "Tax Rates, Tax Administration And Income Tax Evasion In Switzerland", Public Choice, 88-161-170.

PUTNAM, R. D. (1995). "Bowling Alone: America's Declining Social Capital", Journal of Democracy, 6:1-65-78.

SCHALTEGGER, C. A., TORGLER B. (2007). "Government Accountability And Fiscal Discipline: A Panel Analysis Using Swiss Data", Journal of Public Economics, 91-117–140.

THE WORLD BANK. (1989). Sub-Saharan Africa: From Crisis to Sustainable Growth, The International Bank for Reconstruction and Development/The World Bank. Washington DC.

TORGLER B., DEMİR İ. C., MACINTYRE A., SCHAFFNER M. (2008). "Causes and Consequences of Tax Morale: An Emprical Investigation", Economic Analysis and Policy, 38: 2-313-339.

TORGLER, B., SCHAFFNER, M., MACINTYRE, A. (2010). "Tax Compliance, Tax Morale, and Governance Quality", Alm, James - Martinez-Vazquez, Jorge – Torgler, Benno (Eds.), Developing Alternative Frameworks for Explaining Tax Compliance, Routledge, London / New York.

TORGLER, B., SCHNEIDER, F. (2008). "The Impact Of Tax Morale And Institutional Quality On The Shadow Economy", Journal of Economic Psychology, Journal of Economic Psychology, 228–245.

TUNÇER, M. (2003). "Vergi Ahlakı-Vergi Uyumu İlişkisi Ve Türkiye", Vergi Sorunları Dergisi, 181- 92-114

TYRAN, J.R., FELD, L. P. (2001). "Why People Obey The Law. Experimental Evidence From The Provision Of Public Goods", University of St. Gallen, Discussion Paper no. 2001/14- 3-22.

UNITED NATIONS DEVELOPMENT PROGRAMME. (1997). Reconceptualising Governance. Discussion Paper 2, New York: Management Development and Governance Division, 1-93.

USLANER, E. M. (2010). "Tax Evasion, Corruption and the Social Contract in Transition", J.Alm, J. Martinez-Vazquez, and B.Torgler (Eds.), Developing Alternative Frameworks for Explaining Tax Compliance, Routledge, London / New York.

VOGEL, J. (1974). "Taxation and The Public Opinion in Sweeden:An Interpretation of Recent Survey Data", National Tax Journal, 27: 1- 499-513.