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Abstract. The tax compliance is in the centre of the interests of researchers of different professional areas, as it has direct impact on the state revenues. The paper contributes to the explanation of the possible factors influencing the tax compliance, from the personality point of view. Big Five Inventory - 10 (BFI-10) instrument was used to measure personality traits. The research was conducted in the Slovak Republic. Only one of the personality traits, conscientiousness, has impact on the tax compliance. The results also provide evidence of the relationship between the tax compliance and two control variables - gender and way of living.

Keywords: Tax Compliance, Personality Traits, Empirical Research, Quantitative Methods.

1   Introduction

The question of paying taxes is in the centre of different researches aimed at the tax compliance. Most of the tax payers have a tendency to pay taxes even when the possibility of the tax evasion revelation is low [14].

In spite of that, the tax evasion extent is still rather large. The value added tax accounts for the most important share in the tax gap, as well as in the structure of the taxes revenues to the state budget. Also, the value added tax frauds can be hidden more easily. But the tax gap also arises from other taxes, namely from the income tax. The average level of the tax gap, expresses in % of GDP, is 10.7% in the EU (28 countries). The lowest tax gap is in Luxembourg (1.6%), and the highest one is in Italy (13.8%), Estonia (13.6%). In Slovakia, where the research was conducted, it is 7.3% [10]. We can think of Slovakia as a country with a middle degree of tax morale.

The tendency to pay taxes, or vice versa, to avoid paying taxes has, therefore, been the subject of different researches [1, 6, 9, 12] but this question has not been exhaustively answered. One of the findings is that tax compliance is positively related to tax morale [7]. Overall tax morale in the different countries, dependent on culture and the attitude of people to tax compliance, should also be taken into consideration.

An interesting relation is between the tax morale and tax evasion. According to Weck [15] there is a strong relation between the tax morale and the extent of the shadow

economy. This was confirmed also by Torgler [13] who concluded that the tax morale significantly reduced tax evasion. But the determining the factors that have an impact on tax morale and tax compliance is still insufficient. We agree that one of the factors influencing the tax compliance is the tax policy with all its means [3]. However, when moving to an individual level, the topics of tax morale and of tax compliance lead to the question how the personality influences the attitude to paying taxes. Thus, the objective of the paper is to provide new insight into the factors that impact tax compliance and to answer the question how paying taxes or trying to avoid paying taxes is influenced by personality and what is the share of various personality traits.

The Big Five Inventory framework includes five traits as the basic measures of individual differences: neuroticism, extraversion, conscientiousness, agreeableness, and openness to experience [2].

The structure of the paper is following: the introduction, data and methodology include the description of data, their collection, and how they were analysed. In the following section, results are presented and interpreted. The last section provides the conclusions.

2   Data and Methodology

With regards to data, they were collected in September 2018. With regards to the sample, respondents were students studying at the University of Economics in Bratislava, Slovakia. In total, there were 209 students, of whom 199 (of whom 55 were men and 144 women) completed all relevant items of the questionnaire.

Students were asked to fill in the questionnaires with the incentive to find out the personality traits at the exercises aimed at the topic of personality. All the students were interested in participation in the research and approved using their questionnaire forms for the research purposes.

Personality traits were evaluated by the Big Five Inventory 2, i.e. a 60-statement version of the instrument for the Big Five Inventory; it was developed by John and Soto [8]. The instruction was to evaluate "How well do the following statements describe your personality" with statements preceded by "I see myself as someone who..." on a 1-5 Likert scale (where 1 stands for strongly disagree and 5 for strongly agree). The official Slovak translation of the instrument was used following the Slovak translation of BFI-2 statements by Halama and Kohút [8], as it was released on the web site of the authors of BFI-2. Additionally, we included 5 statements from BFI-10 [11] which are not part of BFI-2. This allowed us to compute BFI-10, and only these traits will be used in this conference paper.

The scenario from the experimental study on tax compliance [4] was used to examine the tendency to comply with the tax regulations or to avoid complying with tax regulations, though this scenario was adjusted to conditions in the Slovak republic. Instead of a 40% tax, a 19% income tax was used; instead of an absolute tax amount EUR 83330 we used EUR 4000. The 17% probability of tax audit was kept. The scenario was formulated as follows: The participants were required to pay a 19% tax on a self-employed income of EUR 4000 with an audit probability of 17% and a tax evasion fine equal to the amount of the tax evaded. A question was then to state how

much tax they would be willing to pay in this scenario. It will be used as the dependent variable.

Besides gender, respondents also provided information on whether they live with parents, with parents but during studies at the dorm or in a rented apartment, or they live their own household. These variables will be used as independent variables in the model alongside personality traits. Also, additional questions were included in the questionnaire but they have not been analysed in this paper.

Data will be analysed using General Linear Model. IBM SPSS 22 will be used for the analysis.

3 Results

Parameter estimates for the model explaining how much tax a respondent would pay given the demographic factors and personality traits are presented in Table 1.

Table 1. Parameter estimates for the full model.

Parameter	B	Std. Error	t	Sig.
Intercept	2611.500	744.429	3.508	.001
Extraversion	-77.201	101.606	-.760	.448
Agreeableness	-76.137	84.690	-.899	.370
Conscientiousness	-139.737	82.105	-1.702	.090
Neuroticism	-68.139	78.107	-.872	.384
Openness to experience	67.669	74.524	.908	.365
[Gender = female]	1431.535	580.389	2.467	.015
[Gender = male]	0ᵃ	.	.	.
[Live = with parents]	1675.898	558.830	2.999	.003
[Live = with parents but during studies at the dorm or in a rented apartment]	1919.257	565.865	3.392	.001
[Live = own household]	0ᵃ	.	.	.
[Gender = female] * [Live = with parents]	-841.656	616.418	-1.365	.174
[Gender = female] * [Live = with parents but during studies at the dorm or in a rented apartment]	-1255.543	623.361	-2.014	.045
[Gender = female] * [Live = own household]	0ᵃ	.	.	.
[Gender = male] * [Live = with parents]	0ᵃ	.	.	.
[Gender = male] * [Live = with parents but during studies	0ᵃ	.	.	.

at the dorm or in a rented apartment]

[Gender = male] * [Live = own household]	0ᵃ	.	.	.

Legend: a. This parameter is set to zero because it is redundant.

The model per se is significant (p-value = .001). With regards to the explanatory power, R^2 = .149, R^2_{adj} = .104.

Demographic factors, and interaction between them is significant at .05 level. From personality traits, only conscientiousness is significant at .1 level. Parameter estimates for the model only with conscientiousness and no other personality traits are provided in Table 2.

Table 2. Parameter estimates for the streamlined model.

Parameter	B	Std. Error	t	Sig.
Intercept	2193.751	591.600	3.708	.000
Conscientiousness	-150.596	79.006	-1.906	.058
[Gender = female]	1444.215	569.972	2.534	.012
[Gender = male]	0ᵃ	.	.	.
[Live = with parents]	1665.636	554.757	3.002	.003
[Live = with parents but during studies at the dorm or in a rented apartment]	1852.420	553.758	3.345	.001
[Live = own household]	0ᵃ	.	.	.
[Gender = female] * [Live = with parents]	-926.114	607.757	-1.524	.129
[Gender = female] * [Live = with parents but during studies at the dorm or in a rented apartment]	-1228.371	609.469	-2.015	.045
[Gender = female] * [Live = own household]	0ᵃ	.	.	.
[Gender = male] * [Live = with parents]	0ᵃ	.	.	.
[Gender = male] * [Live = with parents but during studies at the dorm or in a rented apartment]	0ᵃ	.	.	.
[Gender = male] * [Live = own household]	0ᵃ	.	.	.

Legend: a. This parameter is set to zero because it is redundant.

The model per se is significant (p-value < .001). With regards to the explanatory power, $R^2 = .139$, $R^2_{adj} = .112$. Signs of the estimates stayed the same, and the magnitude of impact stayed approximately the same.

To sum up, women and students living with their parents at least part of the year tend to be willing to pay a fuller amount of tax. The two factors together somewhat decrease the amount. And conscientiousness slightly decreases the amount.

4   Discussion

The obtained results are not surprising *per se*. However, it might have been expected that other personality traits, such as openness to experience or neuroticism could also influence compliance with tax rules.

In making a decision regarding a possible tax evasion, the conscientiousness is probably the most important. It can be partly explained by the perception of tax evasion as a professional problem and it is a decision for which one needs to be prepared in advance. Particularly the area of carousel fraud requires precise knowledge of tax legislation and the specificity of different tax jurisdictions as well as organizational skills.

It would be interesting to conduct a survey among entrepreneurs, or among people whose tax evasion was discovered by tax audits. However, we assume that it would be hard to motivate such people to participate in the survey in general; Even if they provided answers, there would always exist an issue whether the answers are sincere as people may fear to provide honest answers in spite of the survey being anonymous.

5   Conclusions

The impact of gender, independence of living of the respondents and personality traits on tax compliance was studied in the research presented in the paper, to contribute to the knowledge of the factors causing tax compliance, possibly tax avoidance and tax evasion.

Tax compliance is significantly influenced by gender and living setting of the respondents. Women and students living with the parents during their university study incline to pay a fuller amount of tax (EUR 4000, or almost EUR 4000). This is in compliance with similar research focused apart from other factors on relationship between the tax compliance and gender [5].

The results also provide evidence of the relation between the tax compliance and conscientiousness. The relation was negative, i.e. conscientious people tend to avoid paying taxes more than the others. The impact of other four factors, neuroticism, extraversion, agreeableness, and openness to experience was not confirmed. BFI-2, i. e. 60-statement version of the instrument for the Big Five Inventory [8] should be applied in forthcoming research (including facet scales), to explain the relation between the tax

compliance and conscientiousness in details and find out the facets (Organization, Productiveness, Responsibility) that are significant.

The other limitations are connected to using the sample that consists of respondents who study at the same university, although, the intention of the research was to focus the research on the students who would probably become entrepreneurs or would make decisions about the corporate taxes after graduating.

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