What are the factors of tax evasion?
New findings in the EVS Study

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Abstract: This paper is analyzing tax morale in three selected European countries through the evaluation of the results of the European Values Study. The main aim is to identify the factors that influence taxpayers' decisions on the issue of whether they justify cheating on tax or not. The dependence and effect of selected factors were determined by analyzing data from the latest European Values Study (2019). The analysis revealed that not only demographic factors (gender, age), but also other socio-economic and institutional factors (religion, willingness to defend the home country, being a proud citizen, trust in government and respect for authorities) have a significant impact on taxpayers' justification of cheating on taxes. This research is specifically focused on the Czech Republic, Poland and Spain.

Keywords: European Values Study, chi-square test, tax avoidance, tax compliance, tax morale.

JEL Classification: H26, H31, K34.

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Introduction

Tax evasion has a significant impact on tax revenues in most countries of the world. Most states have been fighting tax evasion for a long time, making legislative changes and implementing tools to reduce the possibility of committing tax fraud and speeding up its detection. However, tax evasion must be viewed not only from a legal point of view, which in many cases is an illegal activity, but also from the moral side of such behavior. Nowadays, we can usually encounter the optimization of the tax base, which is carried out in accordance with the legislation of the country, or the targeted use of loopholes in the law. From a legal point of view, such conduct may be completely legal, but from a social point of view, it is immoral.

Tax morale is generally defined as " the intrinsic motivation to pay taxes" or "the willingness to pay taxes" (Torgler, 2007). The issue of motives for tax evasion and tax morale has been examined in recent years in a number of empirical studies. Researchers look at

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the understanding of what motivates taxpayers to participate in the tax system and to comply with tax law.

A better understanding of taxpayers' behavior, motives and attitudes towards taxation can contribute both to increased voluntary compliance and more efficient tax administration (Walsh, 2012). Increasing tax compliance means higher tax revenues for tax administrations and for taxpayers better tax systems that suit their needs. In all countries, tax revenues are the main source of financing public services, which is why it is so important for all countries to understand the behavior of tax subjects. Examining tax morale thus provides a way to achieve voluntary compliance with tax regulations and at the same time, it can be used as a tool to explain differences in the efficiency of tax systems (OECD, 2019).

The aim of this article is to find out how not only demographic but also socio-economic and institutional factors relate to tax morale in three European countries, Poland, Spain and the Czech Republic. The analysis's main contribution is the use of the latest data from the European Values Study (2019). Moreover, new factors that have not yet been specifically analyzed in the previous literature using the EVS data will be examined. We believe that a comparison of the three above mentioned countries with different levels of tax morale declared by the respondents in the survey could reveal interesting differences in attitudes of those countries' citizens.

The first part of the article summarizes the literature dealing with the factors of tax evasion, then the second part describes the data used and explains the statistical method used to determine the relationship between selected factors and tax morale. Finally, the results of the analysis will be discussed, and conclusions drawn. For greater clarity of the text, detailed results of statistical tests for individual factors and countries are given in the appendix.

Overview of literature

Tax compliance is affected by a number of different aspects. In the report from the Forum of Tax Administration, the OECD (2010) divides the factors influencing tax evasion into five main groups (which are interconnected):

- Deterrence – such as the probability of a tax audit, the risk of detection of tax evasion during the audit, the severity of punishment or penalties in the case of tax evasion.
- Personal and social norms.
- Opportunities
  - for compliance (minimizing costs related to the fulfillment of tax obligations, clarity of tax law, complexity of the tax system, simplifying forms).
  - for non-compliance (risk aversion and social norms of the taxpayer, his perception of benefits from publicly provided services, the way of tax payment (e.g. withholding taxes are less prone to tax evasion), efficiency of tax administration in discovering tax evasion).
- Fairness of the revenue body or government.
- Economic factors – general economic factors, specific factors of the business or industry and the tax burden of economic subjects.

Researchers looking for an explanation for tax evasion deal in one way or another with the above-mentioned areas as we describe below.

One of the first and well-known attempts to explain the taxpayer's decision to cheat on taxes was accomplished by Allingham and Sandmo (1972), applying the neoclassical model of the maximum utility on criminal activity. They maximized the utility function of a risk-averse taxpayer given the probability of tax audit and the size of the penalty. Their model was extended by Yitzhaki (1974), adjusting the calculation of the penalty. It was further improved by using the growth model and making it dynamic by Dalamagas (2011).

The amount of tax burden is important in assessing the risk of tax evasion and the potential benefit of the non-payment of tax. Agha and Haughton (1996) or Christie and Holzner (2006) for example found that higher VAT rates correlated with higher tax evasion in VAT.

Numerous other researchers added psychological factors to their studies (Kirchler, 2007, Kirchler, 2019 or Muehlbacher et al., 2011) and interactions between the taxpayers and society or state (Leroy, 2008, 2011). Hofmann et al. (2008) or Alm et al. (2019) concluded that external variables that affect the economic position of the taxpayer, as for example tax rates or detection probabilities, play a crucial role in tax compliance, but personal attitudes and motivations, as well as social norms, are of similar significance.

According to research by Hanousek and Palda (2002), who worked with data from the Czech Republic, Slovakia, Poland and Hungary, there is a positive correlation between tax evasion and government-provided public services. The survey showed that the lower the quality of government services, the more likely it is that the taxpayer will avoid tax. Hordonic (2018) came to the same conclusion, i.e. finding a positive influence of the perception of the quality of public administration on tax morale. Other authors also confirm that higher trust in government or the judicial system improves tax morale (Torgler, 2012, Filer et al., 2019, Daude et al., 2012, Ledyard, 1995). Similar findings were presented by Dell'Anno (2009), who used a utility function that incorporates morale, fairness and the relationship between taxpayers and government.

Daude et al., 2012 also found that people who support democracy have higher tax morale than those who would rather vote for a different system of government. In the context of democracy, it has been shown that those who consider fiscal redistribution to be right, i. e. that the government should tax the rich and subsidize the poor, have higher tax morale than those who disagree with this approach. Konrad and Quari (2011) focused on patriotism and its influence on tax evasion, and they found that more patriotic people are less tolerant of tax evasion.

Furthermore, some researchers have shown that married or religious people have significantly higher tax morale than single or non-religious ones (Torgler, 2012). The higher tax morale of religious people has also been proved in studies by Daude et al. (2012), Gutiérrez a Melguizo (2012) Muehlbacher et al. (2011) a Devos (2008).

Daude, Gutiérrez and Melguizo (2012) found that part-time or self-employed workers have lower tax morale than full-time employees. As a justification of these results, it is stated that full-time workers have less opportunity to cheat on taxes than the self-employed since the total amount of the income tax is generally deducted by their employer.

On the other hand, Kirchler et al. (2019) reported opposite results when analyzing the so-called mental accounting of the self-employed.

Other authors explored the demographic factors possibly important for the attitude to tax evasion. Torgler (2012) discovered that positive factors influencing tax compliance are age, marriage, religion and financial satisfaction, Chung and Trivedi (2003) confirmed that women are less prone to tax evasion than men. Hug and Sporri (2011) – based on the previous issues of the European and World Values Survey data (EVS and WVS, respectively) – support the conclusion that retired elderly married women are those with the highest tax morale. Age and female status as tax compliance fostering factors are also emphasized by Gaviria (2008). Zídková et al. (2018) confirmed the influence of age and the fact that women are more willing to comply with taxes.

Agent-based models added dynamics to the previous models considering the interactions between taxpayers, tax authorities, lawmakers and tax practitioners (Bloomquist, 2011). Interesting results were presented by Bicchieri and Xiao (2009) who found out that for the taxpayers' decision to evade taxes, it is more important what other taxpayers do than what they should do according to tax law. Alm (2012) points out that the trust between tax authorities and taxpayers leads to better tax compliance than enforcement. It is also well known from psychology that people react differently to potential gains than losses. In an experiment, Bazart and Pickhart (2011) found higher tax compliance when honest taxpayers could win money in a lottery.

The latest OECD study from 2019, dealing with the issue of tax evasion, is in line with the above-mentioned conclusions. The study evaluates data from the World Values Survey (2010-2014) and identifies the influence of the following demographic, institutional and socio-economic factors:

- Educational Attainment: More educated individuals have a more positive approach to paying taxes.
- Female: Women have higher tax morale than men.
- Age: Older people justify cheating on taxes less than younger people.
- Citizen: Citizens of the country have higher tax morale than non-citizens.
- Religious: Those who claim a faith or religious identity have a more positive approach to paying taxes.
- Meritocracy: Those who believe they are living in a meritocratic society have higher tax morale.
- Trust in Government: Individuals who trust their national government show higher tax morale than those who do not.
- Redistributive Democracies: People who consider fiscal redistribution as essential display higher tax morale.
- Support for Democracy: Individuals who consider democracy to be the best system of government in their country are less likely to justify cheating on taxes.

It is clear that not only demographic characteristics and social norms of the respondents but also their perception of the government policy, performance and the ability of government to respond to the needs of citizens have a significant impact on tax morale.

Data and methodology

Data

To determine the relationship between tax morale and certain demographic, socio-economic and institutional factors, we used data from the European Values Study database (EVS, 2019). The European Values Study (EVS) is a large-scale, transnational and long-term project focused on research into fundamental human values. These projects examine the preferences, attitudes, values, opinions and beliefs of citizens across the whole Europe. The main topics of the surveys are life, family, work, religion, politics and society.

The EVS surveys focus on a wide range of values and comparable questions that were given to respondents. By random sampling, more than 56,000 people from 30 European countries were interviewed. The following analysis is based on data from the latest available survey published in 2019 (data were collected in 2017), specifically focusing on the question of respondents' tax morale. "Please tell me for the following statement whether you think it can always be justified, never be justified, or something in between: Cheating on tax if you have the chance?". Respondents decided on a ten-point scale where 1 = never and 10 = always.

For the purposes of this analysis, the original ten-point scale was modified to a five-point scale as below:

Table 1. Modified point scale

Original point scale	Modified point scale
1 (Never)	Never
2, 3, 4	Rather not
5, 6	Do not know
7, 8, 9	Rather yes
10 (Always)	Always

Source: Authors' modification based on data from the European Values Study

The reason for the unification was mainly the fact that at some levels of the ten-point scale, the answers were rare and the input data would not be usable for the analysis due to low or zero frequencies. Furthermore, the unification of data was also suitable for increasing the clarity of the graphs used. The most common answer of the respondents was that cheating on tax can never be justified. Table 2 shows the results of justifying cheating on tax for each participating country from the EVS study (2019). Based on this research, cheating on tax is the least justified in Albania, where almost 85% of respondents said they would never justify it. Around 80% of respondents who would never justify cheating on tax were also in Hungary, Poland and Bulgaria. On the contrary, the most tolerant respondents to cheating on tax are in Russia, Armenia and Azerbaijan. Spain and Romania are also among the countries where citizens are more tolerant of tax evasion. The Czech Republic ranked in the middle with 65%.

Table 2. The level of justification for cheating on tax in each country

Country	Never	Rather not	Do not know	Rather yes	Always
Russia	32.70%	21.80%	33.00%	6.50%	6.10%
Belarus	37.10%	26.40%	29.40%	5.00%	2.00%
Armenia	37.40%	20.70%	25.60%	8.80%	7.50%
Slovakia	45.40%	30.50%	20.60%	2.10%	1.30%
Azerbaijan	47.60%	24.20%	15.90%	9.00%	3.40%
Lithuania	47.90%	22.50%	25.60%	2.50%	1.30%
Spain	54.10%	20.00%	13.90%	8.00%	4.00%
Netherlands	57.10%	27.20%	13.50%	1.50%	0.60%
Switzerland	62.30%	25.20%	9.50%	1.60%	1.50%
Iceland	63.20%	24.60%	10.50%	0.80%	0.80%
France	63.60%	22.60%	11.00%	1.50%	1.20%
Georgia	64.10%	15.20%	15.60%	2.50%	2.50%
Romania	64.90%	10.10%	15.50%	3.30%	6.30%
Czech Republic	65.40%	19.60%	12.00%	1.50%	1.60%
Italy	65.90%	17.90%	13.80%	1.10%	1.30%
Finland	66.20%	25.80%	6.20%	0.90%	0.80%
Austria	68.90%	19.60%	9.60%	1.50%	0.50%
Sweden	69.10%	24.00%	5.60%	1.00%	0.40%
Estonia	69.20%	15.30%	13.20%	1.20%	1.10%
Slovenia	69.90%	20.20%	7.80%	1.10%	1.00%
Norway	71.00%	21.10%	6.00%	1.00%	0.90%
Serbia	71.90%	12.20%	12.60%	1.80%	1.50%
Great Britain	72.60%	17.40%	8.30%	0.50%	1.10%
Croatia	72.80%	12.70%	9.00%	2.00%	3.60%
Germany	73.40%	18.60%	6.50%	0.80%	0.80%
Denmark	74.80%	19.30%	4.80%	0.60%	0.60%
Bulgaria	79.00%	10.00%	9.00%	0.70%	1.20%
Poland	79.90%	13.50%	5.20%	0.50%	0.80%
Hungary	80.10%	12.80%	6.20%	0.60%	0.40%
Albania	84.60%	5.80%	6.80%	1.50%	1.30%

Source: Author's calculations based on data from the European Values Study

The "tax morale" question is evaluated depending on the demographic and socio-economic factors chosen from the literature on tax evasion that are listed in Table 3.

Table 3. Factors tested for the dependence of tax morale on them

Number	Factors
1.	Gender
2.	Age
3.	Educational Attainment
4.	Religion
5.	Confidence in Government and Authorities
6.	Confidence in Other People in Society
7.	Willing to Fight for Own Country
8.	Proud Citizen
9.	Respect for Authority

Source: Authors' modification based on data from the European Values Study

We have deliberately selected several questions (questions 7 and 8) regarding patriotism, as this factor has not yet been investigated in the EVS data. We also emphasized questions about respect for authorities (question 9) and about trust in government (question 5). In our view, it is important to examine these very attitudes of citizens, because government policy can influence them to some extent.

We were also interested in respondents' answers about trust in other people (question 6), as some researchers (Bicchieri and Xiao, 2009) found that the impression that others did not pay taxes could lead to a tendency to avoid taxes. We also examined the socio-demographic characteristics of respondents such as gender and age (questions 1 and 2), as well as their education and religion (questions 3 and 4).

The following countries were selected to analyze the factors that may affect taxpayers' tax morale: the Czech Republic, Poland and Spain. The reason is that Poland and Spain represent two opposite extremes, with which the results of the Czech Republic are compared. Poland represents one of the European countries in which the population is the least willing to justify cheating on tax, and Spain, on the other hand, is one of the countries in which the population justifies it the most.

Methodology

The dependence of the answers to the "tax morale" question, i.e. the willingness to justify tax evasion, and selected factors was evaluated using the statistical chi-square test of independence. For this purpose, we used pivot tables with response rates to the "tax morale" question and each question representing the selected factor. The pivot tables contain conditional frequencies of answers to the evaluated question (factor) based on answering the "tax morale" question (see individual pivot tables in the appendix to this article).

We chose the chi-square test for the analysis of tax morale and the factors influencing it because it allows to verify hypotheses about the dependence between two variables in the pivot table. Our data from the EVS Study could be organized exactly in this format. Unfortunately, the strength of the dependence cannot be read from the chi-square test, nor

can the countries be compared, because they have a different size of the samples (number of the respondents of the EVS Study).

Some papers mentioned in the review of literature dealing with this issue average the result of the answer to the question of whether respondents justify tax evasion and then use this average value in the regression analysis as an independent variable and estimate the strength of the influence of individual factors as explanatory variables. However, in our opinion, averaging the results is not correct and the use of regression analysis has its limits in this area since the variables do not have a normal distribution, which is a condition for using the least squares method. Moreover, the results of regression models are often biased by omitted explanatory variables or endogeneity issues.

The independence chi-square test is based on a comparison of observed frequencies n_{ij} to expected frequencies $n_{i+}n_{+j}/n$. For the purposes of this analysis, the significance level was set at $\alpha = 0.05$. To use this test, the input data have to meet the two following conditions:

not more than 20% of the theoretical frequencies may be less than 5,

none of the theoretical frequencies may be less than 1.

The following hypotheses are tested:

H0: the variables are independent,

H1: non H0, which means the variables are dependent,

based on the formula for G

$$G = \sum_{i=1}^{r} \sum_{j=1}^{s} \frac{\left(n_{ij} - n_{i+}n_{+j}/n\right)^2}{n_{i+}n_{+j}/n}$$

which has a chi-square distribution with $G \approx \chi^2\big((r-1)(s-1)\big)$)) degrees of freedom, where r is the number of rows and s is the number of columns in the pivot table. The critical value has the form $W_\alpha = \{g; g \geq \chi^2_{1-\alpha}\}$, where g is the calculated value from the G formula. The calculated value from the G formula is compared with the critical value. If the calculated value is greater than (or equal to) the critical value, then we reject the hypothesis H0 at the 5% level of significance.

Results and discussion

The results of the analysis of the influence of selected factors on the justification of cheating on tax for the Czech Republic, Poland and Spain are shown in Table 4. An overview of the frequency of answers of the EVS respondents to the examined questions and the results of the performed tests of independence are included in the appendix to the article.

In the analysis of tax morale in Poland, in many cases the statistical test could not have been performed due to the low frequency of answers of those who would justify cheating on tax. If the direction of the effect of the given factor on the perception of tax evasion in Poland can be traced from the graphical representation of the answers, we have presented the graphs in the appendix so that the reader can get an idea.

Table 4. The influence of analyzed factors on tax morale in the Czech Republic, Poland and Spain

Factor / Country	Czech Republic	Poland	Spain
Gender	Dependence. Women justify cheating on tax less than men.	Dependence. Women justify cheating on tax less than men.	Independence Influence not identified.
Age	Dependence. Tax morale increases with age.	Test could not be performed.	Independence. Influence not identified.
Educational Attainment	Independence. Influence not identified.	Independence. Influence not identified.	Independence. Influence not identified.
Religion	Dependence. Religious people have higher tax morale.	Test could not be performed.	Dependence. Religious people have higher tax morale.
Confidence in Government and Authorities	Dependence Increasing confidence has a positive impact on tax morale.	Test could not be performed.	Dependence Increasing confidence has a positive impact on tax morale.
Confidence in Other People in Society	Independence. Influence not identified.	Independence. Influence not identified.	Independence. Influence not identified.
Willing to Fight for Own Country	Dependence Tax morale increases with the willingness to fight for own country.	Dependence Tax morale increases with the willingness to fight for own country.	Dependence Tax morale increases with the willingness to fight for own country.
Proud Citizen	Dependence. Proud citizens have higher tax morale.	Test could not be performed.	Dependence. Proud citizens have higher tax morale.
Respect for Authority	Dependence. A positive perception of increasing respect for authorities increases tax morale.	Test could not be performed.	Dependence. A positive perception of increasing respect for authorities increases tax morale.

Source: Authors' calculations based on data from the European Values Study

Below, the links between selected factors and tax morale are described in more detail and the potential causes of these relationships are discussed, including a comparison of results for individual countries.

Gender

The first factor examined was gender. The results of our analysis showed a relationship between gender and the justification of tax evasion in the Czech Republic and Poland. In both countries, women are less likely to justify tax evasion than men, a result consistent with the findings of Torgler (2012), OECD (2019), Joshi, A. (2019) and other named

authors. Our interpretation of these results is that they could potentially be caused by the psychological factors of women's lower willingness to take risks to the possibility and the fact that women are better aware of the benefits of public support, for example during maternity leave. In Spain, the test did not prove the dependence.

Age

Another factor on which the dependence of the justification of tax evasion was tested was age. As the previous research shows, with increasing age, the justification of tax evasion tends to decrease (eg Torgler, 2012, Gaviria, 2008, Zídková, 2018). The dependence of this factor was proved only in the Czech Republic, in Spain, the dependence was not proved. In the case of the Czech Republic, the cause of the correlation can, in our opinion, be found in the fact that older people are mostly pensioners who receive benefits from the social system, so they do not justify tax evasion. What causes the independence of justifying tax evasion on the factor of age in Spain and Poland is a question. We believe that this could be explained, for example, by intergenerational solidarity, where senior citizens are less dependent on pension income, which is paid from public budgets and thus from taxes.

Educational Attainment

The analysis of the third selected factor, which is the level of educational attainment, failed to prove dependence in any of the selected countries. Therefore, it cannot be stated from the results that the level of educational attainment would play an important role in deciding on the justification of tax evasion. This does not correspond to the conclusions of the previously mentioned authors that more educated people justify tax evasion less likely (e.g. Torgler, 2012, Daude, Gutiérrez and Melguizo, 2012). However, some authors mention the ambiguous effect of educational level on the willingness to cheat on taxes. For example, Zídková et al. (2018) found by analyzing older data from the EVS (2008) that the least educated respondents and also the most educated are the least willing to tolerate tax evasion. This may, in our opinion, be related to the fact that the most educated people understand the tax system and its benefits, and the least educated have low incomes from which they do not pay high taxes and, conversely, can draw various benefits from public sources (e.g., during unemployment). However, our analysis did not reveal this pattern as the chi-quadrat test would show dependence between the attitude to tax evasion and the level of education even if it was non-linear.

Religion

In this part, respondents were asked whether they are religious or not. The test proved the dependence of the (un)willingness to justify tax evasion on being religious. Although it was not possible to do the test in the case of Poland, the results show that in all three countries, religious people tend to tolerate tax evasion slightly less than non-religious people. This corresponds to the general assumption that all religions serve the same purpose in promoting good behavior and discouraging bad behavior. Religion is expected to provide an internal control for self-monitoring and self-enforcement in moral behavior.

Confidence in government and authorities

In this part, it was tested whether the confidence of the population in the government and other authorities plays a role in deciding on the justification of tax evasion. Dependence

was proved in the Czech Republic and Spain. It has been shown that the more people trust the state administration, the less willing they are to justify cheating on tax. It was not possible to perform the statistical test for Poland but based on a graphical analysis of the input data, a positive correlation can also be noted between growing confidence and refusing to justify tax evasion.

This finding confirms the results of research that was already carried out (Torgler, 2012, Filer et al., 2019, Daude et al., 2013, Ledyard, 1995, Dell'Anno, 2009), which shows that trust in government has a positive effect on tax morale. We agree with the mentioned authors that if the taxpayer perceives the quality of the public services provided as sufficient, it will rather give him the feeling that "his/her" money that he/she has paid to the state is being treated correctly and will be all the more willing to pay taxes.

Confidence in other people in society

In this case, people answered to what extent it is possible to trust people, or whether one must be very careful in dealing with other people. This factor was chosen based on the assumption that social environment and norms can influence individuals' decisions (Hofmann et al., 2008). If we take into account the assumption that trust in other people is trust that other people pay taxes properly, it will probably mean that those who trust will be less willing to cheat on taxes. However, in this case the statistical test did not show dependence in any of the selected countries and the original assumption cannot be confirmed.

Willing to fight for own country

Another selected factor on which the dependence of the willingness to justify tax evasion has been tested is the willingness to fight for one's country. In this case, respondents answered the question of whether they would be willing to fight for their country in the event of war or not. This factor was chosen because the willingness to fight for one's country is associated with a certain loyalty to the government and patriotism, which is also linked to tax compliance. To the best of our knowledge, this factor has not yet been directly examined in the previous analyzes of tax evasion.

In all three countries, it has been shown that individuals who would be willing to fight for their country in the event of war are also less likely to justify cheating on tax. The highest percentage of those who would be willing to fight for their country in the event of war was recorded in Poland, which corresponds to the fact that Poland is the country with the highest tax morale among the three observed countries. The fact that a certain loyalty to the state is related to tax compliance is also proved by the results of the research in Spain. Spain has both low tax morale and a very low loyalty to its country. Approximately 62% of respondents in Spain said they would not be willing to fight for their country in the event of war. The Czech Republic was dominated by the number of those who would be willing to defend their country, but the difference is not as striking as in the case of Poland.

Proud Citizen

The justification of tax evasion was further tested on the criterion of how proud individuals are to be a citizen of their country. This is another of the factors that, as far as we know, has not been studied before. In the case of the Czech Republic and Spain, the

dependence between citizens' pride and their willingness to tolerate tax evasion has been proved. From the results, it can be said that the pride of citizens has a very significant effect on tax morale, so that with increasing pride, the willingness to justify tax evasion clearly decreases.

Although it was not possible to perform a statistical dependency test for Poland, some influence could be observed from the data. For example, in the group of individuals who are not at all proud to be Polish citizens, more than 25% always justify cheating on tax. Based on these results, it can be stated that the pride of citizens has a positive effect on tax morale in Poland as well.

Respect for authority

The last factor tested in this analysis is respect for authorities. In this question, the respondents assessed the change in the way of life, specifically they answered the question of whether they consider greater respect for the authorities to be a good change, a bad change or they do not care. Again, this is a new factor that has not yet been directly analyzed in the literature.

The statistical test succeeded in proving that the justification of tax evasion in the Czech Republic and Spain depends on the perception of respect for authorities. Individuals who see an increase in respect for the authorities as a good change show slightly higher tax morale than those who do not care or perceive the change negatively. In the case of Poland, however, this dependence has not been statistically proved.

Conclusion

From the demographic factors, the effect of gender on the willingness to justify tax evasion was the most obvious. Women were less tolerant of cheating on tax than men in the Czech Republic and Poland, however, this relationship was not confirmed in Spain. Overall, this confirms the results of the previous research. It has also been shown that tax morale tends to increase with age. The statistical test proved this relationship for the Czech Republic, for Poland this effect of age on tax morale could only be inferred from the chart. The dependence of tax morale on age was not confirmed for Spain at all.

A significant difference in the attitude to tax compliance was noted for taxpayers who belong to a religious group. Religious people in all the observed countries are considerably less tolerant of tax evasion than those who do not identify themselves with any religion. Statistically, it was proved for the Czech Republic and Spain, in Poland, there were not enough respondents who would approve cheating on tax to perform a valid statistical chi-square test, but the dependence of tax morale and religion was detectable from the data.

Education of respondents did not prove to be essential for the opinion on tax fraud. On the other hand, a clearly visible role in the willingness to justify cheating on tax plays low confidence in government and authorities in all three countries, which corresponds to the previous research.

Factors of patriotism, such as the willingness to fight for own country and the pride of being the citizen of the country, have a positive impact on tax morale in all three countries that were examined. The same (positive) influence on tax morale has the respect for

authorities, again, this was observed for all three countries. We can conclude that patriotism and the respect for authorities have a positive effect on tax morale and tax compliance. Therefore, it is desirable for tax administration and tax policy makers to support these phenomena.

In an overall comparison of countries, we found that they differ in the influence of demographic factors, which in Spain did not show a connection with tax evasion, while in the Czech Republic and in the case of gender questions also in Poland, this connection was clearly demonstrated. On the contrary, when examining the attitudes of the respondents, especially on the issue of patriotism, the connection with tax evasion was proved in all three countries.

When evaluating the results of our analysis, it should be borne in mind that decisions not to pay taxes are sensitive for the individual respondents and they may give the answers they consider acceptable and not express their true views (Slemrod, 2007, Slemrod and Weber, 2012). Therefore, the assessment of the level of tax morale on the basis of a questionnaire survey may have limited informative value. The tax administration and the tax system of a particular country must also be taken into account, as the conditions for collecting taxes and tax legislation are significant for the economic decisions and tax compliance of taxpayers (Bortel, 2005).

Tax administrations cannot influence the demographic and social factors of taxpayers' decisions about tax evasion, but their knowledge can help to steer tax policy in the right direction. The analysis showed that higher tax morale and, subsequently, better tax collection, can be achieved by supporting the identification of citizens with their state and government. This could also increase the respect for authorities which is another important factor supporting the willingness to comply with tax legislation.

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Appendix

Gender - $\chi^2_{0,95}(4) = 9,49$

Table 5. Gender – The Czech Republic

Gender	Never	Rather not	Do not know	Rather yes	Always	Total
Male	417	166	85	13	15	696
Female	739	181	126	13	13	1 072
Total	1 156	347	211	26	28	1 768

Source: Author's calculation based on data from the European Values Study

G = 20,89

Table 6. Gender – Poland

Gender	Never	Rather not	Do not know	Rather yes	Always	Total
Male	461	113	24	8	9	615
Female	605	90	16	6	2	719
Total	1 066	203	40	14	11	1 334

Source: Author's calculation based on data from the European Values Study

G = 20,41

Table 7. Gender – Spain

Gender	Never	Rather not	Do not know	Rather yes	Always	Total
Male	267	135	42	61	21	526
Female	369	146	44	64	26	649
Total	636	281	86	125	47	1 175

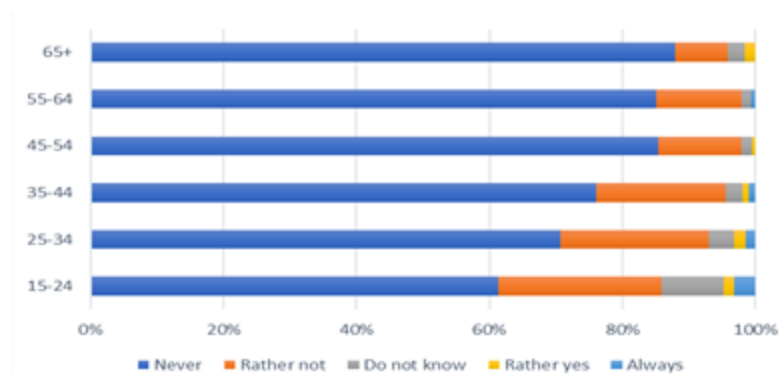*Source: Author's calculation based on data from the European Values Study*

G = 4,61

Age - $\chi^2_{0,95}(20) = 31,41$

Table 8. Age – The Czech Republic

Age	Never	Rather not	Do not know	Rather yes	Always	Total
15-24	55	27	12	5	4	**103**
25-34	128	78	18	13	6	**243**
35-44	199	80	28	12	3	**322**
45-54	157	66	22	11	7	**263**
55-64	197	61	16	7	3	**284**
65+	386	85	18	4	2	**495**
Total	**1 122**	**397**	**114**	**52**	**25**	**1 710**

Source: Author's calculation based on data from the European Values Study

G = 83,38

Figure 1. Age – Poland

Source: Author's modification based on data from the European Values Study

Table 9. Age – Spain

Age	Never	Rather not	Do not know	Rather yes	Always	Total
15-24	45	21	12	7	4	**89**
25-34	91	46	6	15	3	**161**
35-44	121	55	13	16	13	**218**
45-54	117	67	17	33	12	**246**
55-64	103	35	17	18	6	**179**
65+	159	57	21	36	9	**282**
Total	**636**	**281**	**86**	**125**	**47**	**1 175**

Source: Author's calculation based on data from the European Values Study

G = 29,38

Educational Attainment - $\chi^2_{0,95}(8) = 15,51$

Table 10. Educational Attainment – The Czech Republic

Educational Attainment	Never	Rather not	Do not know	Rather yes	Always	Total
Primary	119	37	9	4	2	171
Secondary	815	286	84	36	21	1 242
Higher	210	88	25	14	4	341
Total	1 144	411	118	54	27	1 754

Source: Author's calculation based on data from the European Values Study

G = 5,33

Table 11. Educational Attainment – Poland

Educational Attainment	Never	Rather not	Do not know	Rather yes	Always	Total
Primary	365	63	10	4	5	447
High	410	69	18	7	5	509
Higher	290	70	12	3	2	377
Total	1 065	202	40	14	12	1 333

Source: Author's calculation based on data from the European Values Study

G = 7,80

Table 12. Educational Attainment – Spain

Educational Attainment	Never	Rather not	Do not know	Rather yes	Always	Total
Primary	352	137	43	69	25	626
High	135	75	28	33	10	281
Higher	147	69	15	21	12	264
Total	634	281	86	123	47	1 171

Source: Author's calculation based on data from the European Values Study

G = 11,42

Religion - $\chi^2_{0,95}(4) = 9,49$

Table 13. Religion – The Czech Republic

Religion	Never	Rather not	Do not know	Rather yes	Always	Total
Yes	325	97	18	12	7	**459**
No	819	307	98	41	21	**1 286**
Total	**1 144**	**404**	**116**	**53**	**28**	**1 745**

Source: Author's calculation based on data from the European Values Study

G = 11,07

Figure 2. Religion – Poland
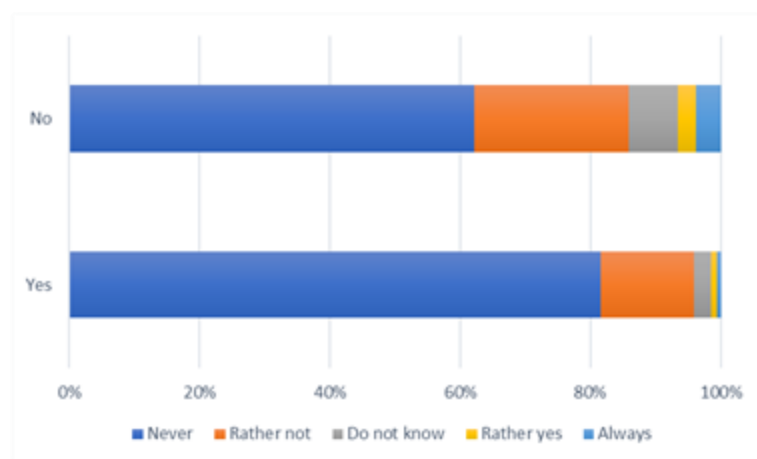
Source: Author's modification based on data from the European Values Study

Table 14. Religion – Spain

Religion	Never	Rather not	Do not know	Rather yes	Always	Total
Yes	428	162	46	86	30	**752**
No	207	115	40	38	17	**417**
Total	**635**	**277**	**86**	**124**	**47**	**1 169**

Source: Author's calculation based on data from the European Values Study

G = 12,51

Confidence in Government and Authorities - $\chi^2_{0,95}(16) = 26,30$
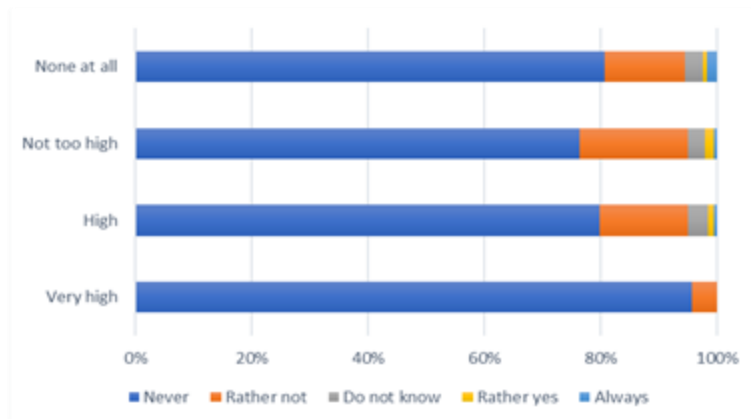
Table 15. Confidence in Government and Authorities – The Czech Republic

Confidence in Government and Authorities	Never	Rather not	Do not know	Rather yes	Always	Total
Very high	54	13	7	1	1	**76**
High	349	101	26	19	9	**504**
Not too high	563	209	56	16	5	**849**
None at all	149	72	28	16	10	**275**
Total	**1 115**	**395**	**117**	**52**	**25**	**1 704**

Source: Author's calculation based on data from the European Values Study

G = 45,26

Figure 3. Confidence in Government and Authorities – Poland

Source: Author's modification based on data from the European Values Study

Table 16. Confidence in Government and Authorities – Spain

Confidence in Government and Authorities	Never	Rather not	Do not know	Rather yes	Always	Total
Very high	79	22	6	13	1	**121**
High	220	101	34	61	13	**429**
Not too high	222	118	34	41	22	**437**
None at all	100	36	10	6	11	**163**
Total	**621**	**277**	**84**	**121**	**47**	**1 150**

Source: Author's calculation based on data from the European Values Study

G = 32,57

Confidence in Other People in Society - $\chi^2_{0,95}(4) = 9{,}49$

Table 17. Confidence in Other People in Society – The Czech Republic

Confidence in Other People in Society	Never	Rather not	Do not know	Rather yes	Always	Total
It is possible to trust people	261	91	23	9	1	**385**
One must be very careful in dealing with other people	846	290	91	41	27	**1 295**
Total	**1 107**	**381**	**114**	**50**	**28**	**1 680**

Source: Author's calculation based on data from the European Values Study

G = 7,58

Table 18. Confidence in Other People in Society – Poland

Confidence in Other People in Society	Never	Rather not	Do not know	Rather yes	Always	Total
It is possible to trust people	250	64	12	4	3	**333**
One must be very careful in dealing with other people	787	134	27	10	7	**965**
Total	**1 037**	**198**	**39**	**14**	**10**	**1 298**

Source: Author's calculation based on data from the European Values Study

G = 6,61

Table 19. Confidence in Other People in Society – Spain

Confidence in Other People in Society	Never	Rather not	Do not know	Rather yes	Always	Total
It is possible to trust people	266	109	31	56	21	**483**
One must be very careful in dealing with other people	362	170	53	69	24	**678**
Total	**628**	**279**	**84**	**125**	**45**	**1 161**

Source: Author's calculation based on data from the European Values Study

G = 2,65

Willing to Fight for Own Country - $\chi^2_{0,95}(4) = 9,49$

Table 20. Willing to Fight for Own Country – The Czech Republic

Willing to Fight for Own Country	Never	Rather not	Do not know	Rather yes	Always	Total
Yes	564	183	42	24	10	**823**
No	341	148	54	19	16	**578**
Total	**905**	**331**	**96**	**43**	**26**	**1 401**

Source: Author's calculation based on data from the European Values Study

G = 19,88

Table 21. Willing to Fight for Own Country – Poland

Willing to Fight for Own Country	Never	Rather not	Do not know	Rather yes	Always	Total
Yes	806	138	26	8	5	**983**
No	185	49	11	6	3	**254**
Total	**991**	**187**	**37**	**14**	**8**	**1 237**

Source: Author's calculation based on data from the European Values Study

G = 13,40

Table 22. Willing to Fight for Own Country – Spain

Willing to Fight for Own Country	Never	Rather not	Do not know	Rather yes	Always	Total
Yes	241	91	22	24	18	**396**
No	318	159	53	95	27	**652**
Total	**559**	**250**	**75**	**119**	**45**	**1 048**

Source: Author's calculation based on data from the European Values Study

G = 25,04

Proud Citizen - $\chi^2_{0,95}(16) = 26,30$

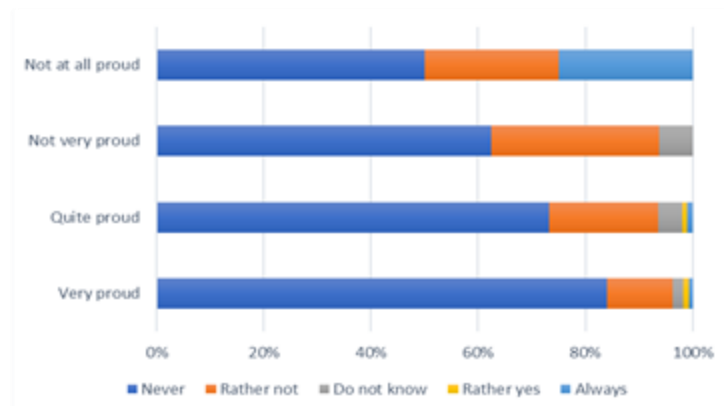**Table 23. Proud Citizen – The Czech Republic**

Proud Citizen	Never	Rather not	Do not know	Rather yes	Always	Total
Very proud	419	102	26	11	7	**565**
Quite proud	521	180	50	21	6	**778**
Not very proud	107	74	21	7	5	**214**
Not at all proud	11	6	4	8	6	**35**
Total	**1 058**	**362**	**101**	**47**	**24**	**1 592**

Source: Author's calculation based on data from the European Values Study

G = 157,59

Figure 4. Proud Citizen – Poland

Source: Author's modification based on data from the European Values Study

Table 24. Proud Citizen – Spain

Proud Citizen	Never	Rather not	Do not know	Rather yes	Always	Total
Very proud	276	87	16	59	27	**465**
Quite proud	250	116	52	41	13	**472**
Not very proud	49	40	8	9	0	**106**
Not at all proud	24	18	5	6	3	**56**
Total	**599**	**261**	**81**	**115**	**43**	**1 099**

Source: Author's calculation based on data from the European Values Study

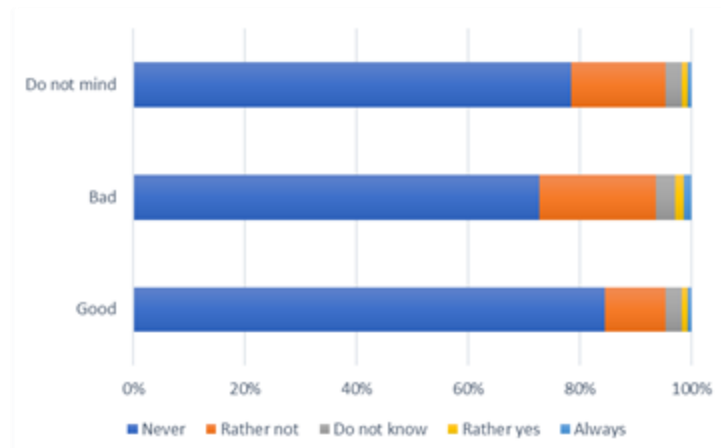G = 53,24

Respect for Authority - $\chi^2_{0,95}(8) = 15,51$

Table 25. Respect for Authority – The Czech Republic

Respect for Authority	Never	Rather not	Do not know	Rather yes	Always	Total
Good	528	167	52	23	9	779
Bad	214	88	17	7	7	333
Do not mind	223	98	35	21	6	383
Total	965	353	104	51	22	1 495

Source: Author's calculation based on data from the European Values Study

G = 19,72

Figure 5. Respect for Authority – Poland

Source: Author's modification based on data from the European Values Study

Table 26. Respect for Authority – Spain

Respect for Authority	Never	Rather not	Do not know	Rather yes	Always	Total
Good	425	181	41	86	36	769
Bad	88	31	20	20	5	164
Do not mind	87	56	21	15	4	183
Total	600	268	82	121	45	1 116

Source: Author's calculation based on data from the European Values Study

G = 24,83