



The influence of demographic factors and risk aversion on tax morale: A multi-group analysis

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Abstract

Tax morale has been recognized as the key to understand the levels of compliance achieved in most countries. We applied a structural equation model (SEM) to gain a better understanding about the factors shaping tax morale of Portuguese taxpayer's. Our purpose was to analyse through SEM the direct effects of political democratic system, political participation, religiosity, individual satisfaction, trust in others and institutional trust on tax morale. SEM of tax morale allowed us to analyse the impact of demographic variables and risk aversion as determinants of tax morale through the use of multi-group analysis of structural invariance of SME developed. A sample of 1,553 Portuguese individual's representative of Portuguese population obtained from European Values Study (EVS, 2010) was used. The results confirmed that Portuguese taxpayers' tax morale is influenced by taxpayers trust on institutions like government, parliament and the judicial system, by political participation and by the belief that democracy is a good political system for governing the country. Tax morale is also influenced by individual's satisfaction, by religiosity and by societal behaviour (trust in others).

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Keywords: Tax morale, tax compliance, structural equation model, multi-group analysis

1. Introduction

The reasons underlying taxpayers' behaviour are not yet completely understood by researchers and by politicians. Tax morale is recognized as having an important role in explaining the high degree of tax compliance observed in many countries (Molero and Pujol, 2005).

Tax morale is understood as the intrinsic motivation to comply with fiscal duties (Torgler, 2003). Torgler and Schneider (2005) defined it as the intrinsic motivation to comply and pay taxes, and thus voluntarily contribute to public welfare. A better understanding about individual heterogeneity in shaping tax morale may contribute for the development of alternative mechanisms to reduce tax evasion (Riahi-Belkaiou, 2004; Lago-Peñas and Lago-Peñas, 2010) and to improve tax compliance. A comprehensive understanding of tax compliance should help decision-

makers to shape better communication policies with taxpayers (Trivedi, Shehata and Lynn, 2003). Also, tax authorities will be able to develop more targeted enforcement strategies for non-compliant taxpayers (Devos, 2008).

This paper contributes to the literature by extending previous studies about tax morale. Our paper applies SEM in order to study the influence of multidisciplinary factors on tax morale. Despite the existence of a considerable number of research papers on this topic, we believe that little is known, in particular, on the constraints of Portuguese taxpayers' tax morale. Data provided by EVS was used to apply SEM to analyse the factors that influence Portuguese taxpayers' tax morale in 2008. This approach has two main advantages. First, it extracts information from different dimensions of tax morale, providing better estimation of the unobservable, multidimensional variables. Second, SEM reveals the direct and indirect effects between the constructs of the structural model. The conclusions obtained can be used by politicians and the tax administration, in order to improve compliance levels and reduce noncompliance and underground economy through the implementation of more efficient rules. Given the present challenges faced by Governments, studies of this nature can be valuable to promote voluntary tax compliance.

The paper is organized as follows. In Section 2, we briefly review the literature on tax morale and its main determinants, present the hypothesis to be studied and the research framework. Section 3 describes data and variables used in the study. Section 4 presents the structural equation model and the empirical results. Section 5 concludes.

2. Literature review and research hypothesis

Empirical research clearly shows that taxpayers exhibit a wide range of behaviours towards their tax obligations under similar conditions. What still remains to be understood are the reasons behind taxpayer's behaviour. Behavioural differences are justified for several motives, ranging from an economic point of view (Allingham and Sandmo, 1972; Yitzhaki, 1974) to behavioural, political and psychological motivations (Andreoni, Erard and Feinstein, 1998). The puzzle of tax compliance can only be understood if research takes into account individual's willingness (Torgler, 2003) and moral sentiments, like shame and guilty (Erard and Feinstein, 1994).

Tax morale is linked to a civic duty, which can be crucial to explain the level of acceptance of a certain tax burden (Martinez-Vazquez and Torgler, 2009). It can be conceptualized as a set of moral principles or values that individuals have regarding the payment of their taxes (Alm and Torgler, 2006). Among the range of tax morale definitions provided by the literature, it seems clear that moral rules and feelings, equity and the relation between taxpayers and government are important factors for an understanding of the concept.

Tax morale is a multidimensional concept and requires an interdisciplinary approach (Alm and Torgler, 2006). An analysis of the factors that influence tax morale based on SEM allowed us to assess tax morale using three indicators. Simultaneously we avoid the disadvantages associated with the construction of an index, especially regarding the measurement procedure (Alm and Torgler, 2006).

Empirical studies results support the influence of a large number of social, political and institutional variables on tax morale. From our point of view, analyses of tax morale determinants could be improved if those variables were studied simultaneously. Also, it will be interesting to analyse the direct and indirect relations between the constructs included in the analysis.

Democratic political system

A democratic political system is understood as representing, according to the opinion of taxpayers, a good political system for governing the country. Empirical studies provide evidences of the influence of political democratic system on tax morale (for Asian countries see Torgler, 2004; for Latin America see Torgler, 2005).

Individuals satisfied with how democracy has evolved and with the way the country is being governed, have higher levels of tax morale. A democratic political system offers citizens the possibility to express their preferences. Also, a more active role of the citizens helps them to better monitor and control politicians, and thus to reduce the asymmetry of information, which reduces the discretionary power of the government (Torgler, 2004). We hypothesize that:

H 1.1 – Political democratic system positively influences tax morale.

H 1.2 – Political democratic system positively influences individual satisfaction.

Political Participation

Opportunities for political participation contribute to what Lane (1988) calls “procedural goods of democracy”. It implies, for instance, dignity goods such as self-respect, feeling of personal control or understanding and public resonance). There are several forms of political participation. Some involve active interactions with others, like being part of a political party, and others are usually performed in an individual manner, for example signing a petition (Quintelier and Hoodghe, 2011). The more aware a government is of citizens preferences, the better its policies will reflect citizens' needs (Boix and Posner, 1998). Politically interested citizens will tend to associate and engage in discussion. Exchange of arguments and face-to-face interaction enhances group identification and give citizens the opportunity to identify others' preferences. As these preferences become visible, the moral costs of free-riding or behaving illegally increase, reducing the justification for corruption and tax evasion. We hypothesize that:

H 2.1 – Political participation positively influences tax morale.

H 2.2 – Political participation positively influences political democratic system.

H 2.3 – Political participation positively influences trust in others.

Religiosity

Every society has moral constraints, which are not formally laid down (Torgler, 2006), but nevertheless influence citizens' behaviour). Church as an institution induces moral constraints in a community and influences people's behaviour (Torgler and Schneider, 2005). Beit-Hallahmi and Argyle (1997) wrote extensively about the effect of individual religiosity, which is related to the development of a sense of compassion, honesty and altruism, as well as happiness and quality of life, health and mental health. Lehrer (2004) emphasize the positive outcomes between being a religious individual and well-being and healthy. Additionally, Brañas-garza et al., (2009) confirmed the link between religious practices and trust in several institutions (the government, the police, the armed forces, the judiciary and the banks) and trust toward others. Some studies found that religiosity improves people's civic engagement (Wald and Wilcox, 2006). Being a member of a religious organization is positively related with political participation (Gibson, 2008). We hypothesize that:

H 3.1 – Religiosity positively influences tax morale.

H 3.2 – Religiosity positively influences institutional trust.

H 3.3 – Religiosity positively influences trust in others.

H 3.4 – Religiosity positively influences political participation.

Individual Satisfaction

The level of happiness of an individual can influence economic decisions, including consumption, behaviour at work, investment decisions and political behaviour (Frey and Stutzer, 2002). In this context it will be interesting to examine whether the level of happiness of citizens affects their tax morale. Many economists have made use of subjective questions on welfare, well-being, and health satisfaction, among others, to address a wide range of

scientifically and politically relevant questions (for an example see Torgler, 2002). Happiness and individual satisfaction were found to have a positive effect on taxpayers' tax morale in Asian countries (Torgler, 2004) and in Latin America (Torgler, 2005). We hypothesize that:

H 4.1 – Individual satisfaction positively influences tax morale.

Trust in Others

Individuals do not act in isolation. They have perceptions about the behaviour of other individuals. The greater the perception by an individual that others engage on tax evasion practices, the more he will tend to lower his level of tax morale (Molero and Pujol, 2005). Similarly, the greater the perception that other taxpayers meet their tax obligations, the greater is the individual willingness to pay taxes. If trust is matched by trustworthy behaviour in others, the costs of dealing with risks and uncertainty are reduced (Helliwell, 2001). Trusting other citizens and political leaders are two contributing factors for people to pay taxes more willingly (Scholz and Lubell, 1998). We hypothesize that:

H 5.1 – Trust in others positively influences tax morale.

H 5.2 – Trust in others positively influences individual satisfaction.

H 5.3 – Trust in others positively influences institutional trust.

Institutional trust

Institutional trust measures the degree of confidence that individuals have in institutions (government and parliament) and public administration of the country where they live (OECD, 2007). Institutional trust can only be created if the government acts in line with citizens' needs and desires (Hardin, 1998). Generally, it can be argued that positive actions by the state are intended to improve taxpayers' attitudes and commitment to the tax system, and thus enhance compliant behaviour (Smith and Stalans, 1991; Smith, 1992). If the state acts trustworthily, taxpayers might be more willing to comply with taxes (Torgler and Schneider, 2007). Not only trust in the government may have an effect on tax morale, but also trust in courts and the legal system, and thus the way the relationship between the state and its citizens is established. We hypothesize that:

H 6.1 – Institutional trust positively influences tax morale.

H 6.2 – Institutional trust positively influences individual satisfaction.

3. Methodology

3.1. Instrument

For our analysis we used data from EVS survey carried out in 2008 (EVS, 2010). A large number of studies employs survey data to analyse tax morale determinants (Martinez-Vazquez and Torgler, 2009; Lago-Peñas and Lago-Peñas, 2010). EVS and WVS (World Values Survey) are two data sources applied for studies about tax morale and tax compliance (for EVS see Frey and Torgler, 2007; Martinez-Vazquez and Torgler, 2009; for WVS see Torgler, 2006; Alm and Torgler, 2006). The EVS is a research project on human values in Europe that explores the differences and changes in the values of citizens. The survey provides details about ideas, beliefs, preferences, attitudes, values and opinions of citizens across Europe. European Values Study allows us to work with a representative set of individuals of Portugal (N = 1,514). Representative multi-stage or stratified random samples of the adult population of 18 years old and older were drawn.

Multivariate outliers were evaluated with Mahalanobis squared distance (p_1 and $p_2 < 0.001$). From an initial sample of 1,553 individuals, 39 were considered multivariate outliers and were deleted. The final sample contains 1,514 individuals.

3.2. Model and variables

According to the applied research framework, tax morale is directly influenced by individual's institutional trust, by the level of trust in others, by political participation, by religiosity, by political democratic system and by individual's satisfaction.

Democratic political system construct represents Portuguese citizen's opinion that democracy is the best regime to govern the country. Political participation represents individual's involvement in political activities on an individual level. Religiosity represents moral constraints on individual's behaviour. Trust in others represents individual's perception of others behaviour. Institutional trust allowed us to consider the effects of institutional trust at the current politico-economic level (Alm e Torgler, 2006; Torgler, 2004) and at the constitutional level (trust in the legal system/justice system) thereby focusing on how the relationship between the state and its citizens is established. Table I presents the constructs and indicators and its scales of measurement model.

Table I – Constructs, indicators and scale of measurement model

Constructs	Indicators	Scale	References
Democratic Political System	Political system	4-point scale	Torgler, 2005
	Democracy	4-point scale	Torgler, 2005
Political Participation	Petitions	3-point scale	Quintelier and Hooghe, 2011
	Boycotts	3-point scale	Quintelier and Hooghe, 2011
	Manifestations	3-point scale	Quintelier and Hooghe, 2011
Religiosity	Church attendance	7-point scale	Torgler and Schneider, 2007
	Religious services	2-point scale	Pickel, 2012
	Answer to moral problems	2-point scale	Pickel, 2012
	Trust in church	4-point scale	Torgler, 2006;
Individual Satisfaction	Control over your life	10-point scale	Samman, 2007
	Satisfaction	10-point scale	Torgler, 2005
	Job security	10-point scale	Samman, 2007
Trust in Others	Fairness	10-point scale	Zak and Knac, 2001
	Helpful	10-point scale	Zak and Knac, 2001
Institutional Trust	Trust in parliament	4-point scale	Heinemann, 2010
	Trust in justice system	4-point scale	Alm, <i>et al.</i> , 2006
	Trust in government	4-point scale	Hug and Spörri, 2010
Tax Morale	Morale	10-point scale	Torgler and Schneider, 2005
	Fraud	10-point scale	Torgler, 2002
	Free riding	10-point scale	Barone and Mocetti, 2011

4. Results

We applied SEM to test the relationships between the variables included in the research framework. After we performed a multi-group analysis to check the invariance SEM of tax morale to demographic factors namely gender, marital status and age and also to risk aversion. For the missing data we applied an imputation technique by replacing the missing values by the mean value of the responses of the variable (Hair et al., 2009). We used Amos 19.0 to generate maximum likelihood parameter estimates through the analysis of the matrix of covariance among variable scores. All the complementary analyses were conducted using SPSS 19.0.

Normality of data was analysed through skewness (sk) and kurtosis (ku) which allowed us to check univariate normality. Our result showed values of sk between -1.278 and 2.588, and values of ku between -1.545 and 4.699. All indicators had univariate normal distributions. In a conservative assumption of normality for absolute values of sk less than ± 3 and less than ± 10 ku are considered acceptable for assumption of normality (Kline, 2004). In AMOS multivariate normality is measured by the use of Mardia's multivariate kurtosis (Mardia, 1970). In our model Mardia's multivariate kurtosis was 51.721. Bentler (2005) considers a cut off value of 5 for the assumption of multivariate normality. According to Hair et al. (2009) the maximum likelihood method is the most effective when the requirement of multivariate normality is verified and has shown to be very robust even in the presence of violation of multivariate normality.

Firstly we developed the measurement model supported by the literature reviewed. We verified the existence of unidimensionality, adequate reliability and validity of all constructs measures using an exploratory factor analysis (EFA) and a confirmatory factor analysis (CFA).

Constructs' unidimensionality was assured through EFA procedure. A value of KMO = 0.713 obtained is considered acceptable for this type of analysis (Hair et al., 2009). The adequacy of factor analysis was measured with Bartlett test. The values of Bartlett's test were $\chi^2 = 7618.568$, $df = 190$ and $p = .000$, which confirmed the appropriateness of the factor analysis procedure as used. The principal component method, with a varimax rotation was used to extract relevant factors. The EFA results showed that all indicators with loadings greater than 0.56 in just one factor, and eigenvalues greater than 1 according to Guttman-Kaiser rule were considered. The measure of sample adequacy (MSA) is greater than 0.62 for all variables. The seven-factor solution obtained explained 66.355 percent of the total variance.

Scale reliability or internal consistency analysis of the constructs was assessed by Cronbach's alpha (α). A value of α higher than 0.60 is considered acceptable and a value greater than 0.7 is considered ideal (Hair et al., 2009). However, Nunnally (1967) considers the range of 0.5 to 0.6 is acceptable for exploratory research. All constructs present a value of α higher than 0.6, except for individual satisfaction with a 0.573 value. Another measure of construct reliability (CR) was computed from the squared sum of factor loading for each construct and the sum of the error variance terms for a construct on the measurement model. Values of CR greater than 0.7 suggest good reliability (Hair et al., 2009). All constructs CR values ranged from 0.7 to 0.9, showing good reliability. We concluded that all constructs presented acceptable reliability for this analysis purpose.

Construct validity was analysed with both convergent validity and discriminant validity. Convergent validity exists if the indicators of a construct have a high portion of variance in common. Convergent validity is assured if standardized factor loadings are higher than 0.5 or ideally than 0.7 (Hair et al., 2009). CFA shows standardized loading estimates greater than 0.5 except for two indicators: job security and religious services. Other measure of convergence is average variance extracted (AVE). AVE values greater than 0.5 (Hair et al., 2009) indicate good convergence. All constructs have AVE values greater than 0.46. These results suggest the existence of convergent validity.

Discriminant validity was assessed through the comparison of the values of AVE for each construct with the squared multiple correlations between two constructs (Hair et al., 2009). We can conclude that all constructs of measurement model show discriminant validity.

The matrix of factor score weights for CFA model show that indicators associated to each construct present high scores and have residual scores in all other constructs.

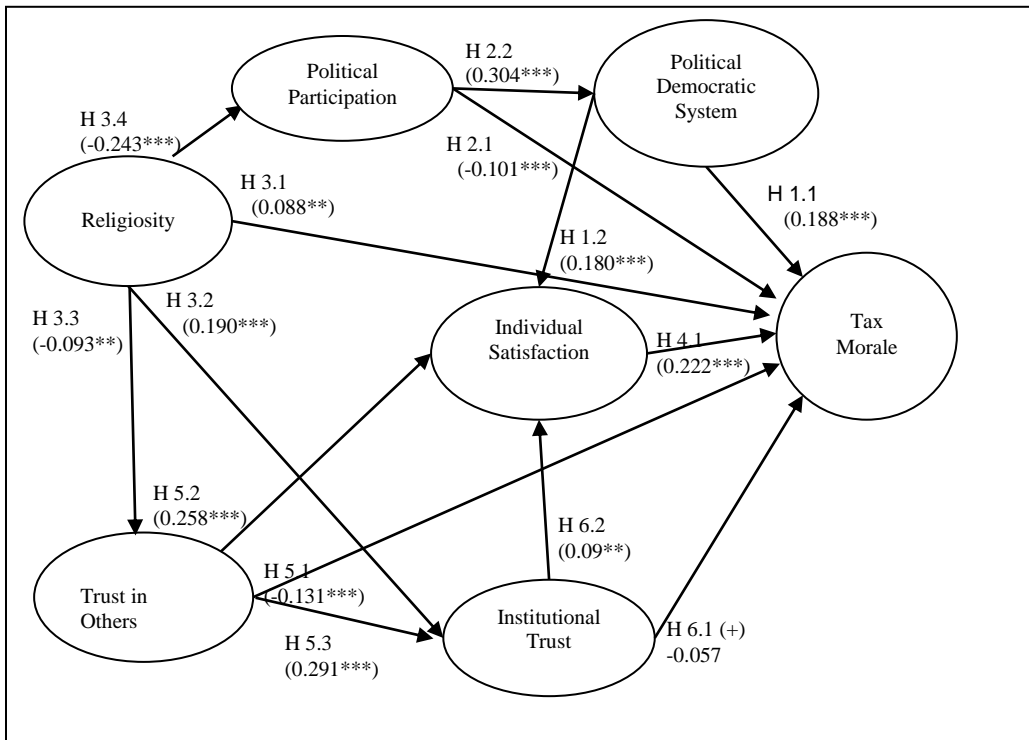
We assessed the global model fit using the Goodness of Fit (GFI) and the Root Mean Square Error of Approximation (RMSEA). Incremental model fit was assessed with the Tucker Lewis Index (TLI), Comparative fit index (CFI) and Normed fit index (NFI). Incremental model fit was assessed with adjusted goodness of fit index (AGFI) and Parsimony Normed Fit Index (PNFI). Tax morale measurement model exhibits good global fit indicators with GFI = 0.976 and RMSEA = 0.031. Values of GFI higher than 0.9 and RMSEA between 0.3 and 0.8 are considered good (Hair et al., 2009). TLI = 0.963, CFI = 0.971 and NFI = 0.953, suggest good incremental fit indicators. According to Hair et al., (2009) values of TLI greater than 0.95 and values of NFI and CFI greater than 0.9 suggest good fit. The model also presents good parsimony fit indicators with AGFI = 0.967 and PNFI = 0.747. Hair et al., (2009) recommends values of AGFI greater than 0.95 and values of PNFI greater than 0.5.

SEM model presents good global fit indicators with GFI = 0.976 and RMSEA = 0.031. For incremental fit TLI = 0.964, CFI = 0.971 and NFI = 0.951. For the Parsimony fit AGFI = 0.967 and PNFI = 0.776. All values are considered good fit indices (Hair et al., 2009). SEM has $\chi^2(155) = 373.170$ and so the Normed Chi-square (χ^2/df) is 2.408 ($p < 0.001$). Hair et al., (2009) recommends a value less than 2 for an acceptable model. However, Kline (1998) argues that a value of 3 or less is acceptable. Considering that the Normed Chi-square is sensitive to sample size and considering our study has a sample greater than 1,000 observations, we concluded that Normed Chi-square of 2.408 is acceptable. Our SEM presents good fitness indicators. Table II presents structural model direct effects.

Table II – Structural model direct effect analysis

Structural relationships (direct effects)	Estimate	t-Value	Hypothesis	Expected sign	p-Value
Political Democratic System → Tax morale	0.665	4.887	H 1.1	+	***
Political Participation → Tax morale	-0.217	-2.831	H 2.1	+	0.005
Religiosity → Tax morale	0.161	2.598	H 3.1	+	0.009
Individual Satisfaction → Tax morale	0.193	5.527	H 4.1	+	***
Trust in Others → Tax morale	-0.142	-3.103	H 5.1	+	0.002
Institutional Trust → Tax morale	-0.127	-1.617	H 6.1	+	0.106
Political Democratic System → Individual Satisfaction	0.733	4.620	H 1.2	+	***
Political Participation → Political Democratic System	0.185	7.606	H 2.2	+	***
Political Participation → Trust in others	0.478	6.087	H 2.3	+	***
Religiosity → Institutional Trust	0.155	5.731	H 3.2	+	***
Religiosity → Trust in Others	0.156	2.267	H 3.3	+	0.023
Religiosity → Political Participation	-0.206	-7.363	H 3.4	+	***
Trust in Others → Individual Satisfaction	0.323	5.666	H 5.2	+	***
Trust in Others → Institutional Trust	0.141	7.184	H 5.3	+	***
Institutional Trust → Individual Satisfaction	0.233	2.440	H 6.2	+	0.015

The path standardized coefficients obtained in the estimation of final SME are presented in Figure 1.



*Significant at $0.05 < p \leq 0.10$; **Significant at $0.01 < p \leq 0.05$; ***Significant at $p \leq 0.01$

Figure 1 – Path graphic of final SEM of tax morale (standardized values)

5. Results and discussion

In general, we find support for the hypothesis that social and political variables influence Portuguese taxpayer's intrinsic motivation to pay taxes. Democratic political system and individual satisfaction present the highest positive effect on the formulation of individual's motivation to comply. Furthermore, we also conclude that political democratic system positively contributes to individual satisfaction. Individuals who believe that democracy is the best government regime tend to state high levels of tax morale and satisfaction with life. Similarly, individual's satisfied with their life's tend to exhibit higher tax morale. Individual taxpayers are negatively influenced by behaviour of the other taxpayers.

Religiosity presents a positive effect on tax morale, although with lower influence compared to democratic political system, individual satisfaction and trust in others. Regarding to Portuguese taxpayers, a higher commitment to obey non-governmental rules increase their tax morale level and stands for an increasing level of institutional trust.

Political participation and trust in others behaviour present a negative effect on tax morale. Taxpayers with a higher level of political participation are less willing to pay their taxes unconditionally. Commonly empirical studies present a positive relation between political participation and tax morale. Our result is not in line with previous

studies. The result obtained in our study can be explained by the fact that most people stated that would never do any of the referred individual political activities, like signing a petition (mean = 2.26, Std. 0.777), joining boycotts (mean = 2.64, Std. 0.566) and be part of manifestations (mean = 2.46, Std. 0.691).

Literature review showed that knowing that other people are trustworthy increases the motivation to act according the rules and to comply. However our study revealed a negative influence of trust in others behaviour and tax morale. In our understanding, the result achieved because a high percentage of taxpayers stated high levels of tax morale and also stated the perception that people do not try to be fair or just look out for themselves.

One of the advantages of analysing tax morale determinants through SEM is the inclusion of direct and indirect effects of the constructs included in the model. An indirect effect is a direct effect that is mediated by at least one other construct. The total indirect effect can be calculated by summing the product of the standardized coefficients that constitute each indirect pathway (Bollen, 1989).

Indirect effects show that tax morale is indirectly influenced by political democratic system (0.040), political participation (0.049), religiosity (-0.002), trust in others (0.047) and institutional trust (0.020). Results of indirect standardized effects present p-value < 0.10 for all constructs, except for religiosity.

Total effect presented is statistically significant for democratic political system, political participation, religiosity, individual satisfaction and trust in others. Considering total effects, we verify a reduction of the negative influence of political participation and institutional trust on tax moral. We also verify that the perception that others behaviour is not fair or that they try to take advantage of me still contributes significantly to the reduction of intrinsic motivation to comply. Democratic political system and individual satisfaction still continue to be the variables with more positive influence on tax morale.

We applied a multi-group analysis to analyse if the SEM developed remained invariant in different groups of individuals. The invariance of structural model was assessed by the significance of $\Delta\chi^2/df$ between the unconstrained model and a group of four nested models. The sample was divided into man (N=615) and women (N=899). SEM developed presented good fit indicators for both groups. Comparison between the unconstrained model and model 1 revealed a statistic difference ($\Delta df=13$, $\Delta\chi^2=24.927$, $p=0.024$) but the comparison between model 1 and 2 showed that structural weights remain invariant ($\Delta df=15$, $\Delta\chi^2=7.161$, $p=0.953$). Thus we conclude that the structural coefficients are invariant in man and women.

We conclude that the result of comparison between unconstrained model and model 1 shows that measurement weights are not invariant for married and widowed ($\Delta df=13$, $\Delta\chi^2=47.770$, $p<0.001$) and for widowed and individual with no registered partnership or never married ($\Delta df=13$, $\Delta\chi^2=29.165$, $p=0.006$).

We considered different groups according to individual's age: 18-29 years (N=184), 30-49 (N=501), 50-64 (N=335) and more than 65 years (N=494). SEM developed presented good fit indicators for groups. Regarding to young (18-29) and older individuals the comparison between model 1 and 2 showed that structural weights are not invariant ($\Delta df=15$, $\Delta\chi^2=25.739$, $p=0.041$). Structural weights are not invariant ($\Delta df=15$, $\Delta\chi^2=31.407$, $p=0.008$) between individuals with 30-49 years and the olders (more than 65 years).

The sample was divided individuals who mentioned risk aversion (N=1352) and others (N=162). SEM developed presented good fit indicators for both groups. The comparison between model 1 and 2 showed that structural weights are not invariant ($\Delta df=15$, $\Delta\chi^2=45.242$, $p<0.001$). Thus we conclude that the structural coefficients are not invariant between individuals who are risk averse and the ones who are not.

6. Conclusions and limitations

This paper contributes to the debate about the determinants of tax morale using a SEM. Using data from EVS regarding to Portugal, we explored the direct and indirect effects of political and social factors on tax morale.

Our work extends previous empirical studies by analysing simultaneously the influence of political democratic system, political participation, religiosity, individual satisfaction, trust in others and institutional trust on the formulation of Portuguese taxpayer's tax morale. Most of the estimated coefficients of tax moral causes analysed in our model are statistically significant at conventional levels. We conclude that Portuguese taxpayers tax moral is positively influenced by individual satisfaction and by democracy. Our results seem to indicate that, in Portugal, individual's intrinsic motivation to pay taxes is positively influenced by the existence of a democratic political regime and by individual's satisfaction with life. However, we did not find a negative relation between institutional trust and tax morale. Individuals who support democracy as the best political regime, individual's satisfied with their lives and strongly identified with the country tend to have a higher intrinsic motivation to comply. Thus, for Portuguese taxpayers, political and social conditions are important to explain the level of motivation to comply. The results of multi-group analysis procedures allow us to conclude that SEM of tax moral remains invariant for man and woman, for married and single taxpayers. The results showed SEM for tax moral is not invariant for risk averse taxpayers and others, for single and widowed taxpayers and married and widowed taxpayers. SEM for tax moral is also not invariant for young (18 to 49) and older individuals (greater than 65).

We studied a wide range of constructs as determinants of tax morale, although it is justifiable to state that further constructs could have been included. In the choice of the constructs and the indicators to be included in the model we were limited by the variables included in the EVS.

This paper provides detailed insights into Portuguese taxpayers tax morale and thus contributes to understanding why so many taxpayers in Portugal are willing to pay their taxes.

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