

Tax Morale Dimensions Analysis in Portugal and Spain

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Abstract—The reasons that explain different behaviors towards tax obligations in similar countries are not completely understood yet. The main purpose of this paper is to identify and compare the factors that influence tax morale levels in Portugal and Spain. We use data from European Values Study (EVS). Using a sample of 2,652 individuals, a factor analysis was used to extract the underlying dimensions of tax morale of Portuguese and Spanish taxpayers. Based on a factor analysis, the results of this paper show that sociological and behavioral factors, psychological factors and political factors are important for a good understanding of taxpayers' behavior in Iberian Peninsula. This paper added value relies on the analyses of a wide range of variables and on the comparison between Portugal and Spain. Our conclusions provided insights that tax authorities and politicians can use to better focus their strategies and actions in order to increase compliance, reduce tax evasion, fight underground economy and increase country's competitiveness.

Keywords—Compliance, tax morale, Portugal, Spain.

I. INTRODUCTION

IN Europe, governments face the challenge of the need to ensure a high level of public revenues simultaneous with promotion of national economic growth, a high tax system equity level and fighting tax fraud and shadow economy. This adds a renewed interest on the study of tax evasion consequences and taxpayer's behavior within the scientific community, and among politicians.

Several empirical studies show a close link between tax morale and tax compliance [1], [2]. A strong evidence for a negative relationship of tax morale and tax evasion is found in several studies [3], [4]. The motivation behind the study of tax morale stands on the idea that a better understanding on individual heterogeneity in tax morale is fundamental for implementing policies to improve tax morale and tax compliance [5].

Tax morale as the intrinsic willingness to comply has been identified in last decades has a determinant variable to promote tax compliance. Once the factors that shape tax morale are identified and conclusions are drawn, politicians can design strategies that lead to reduction in tax evasion levels [6], [7] and ensure the achievement of the objectives set for the tax system. Furthermore, opening the black box [8] of

tax morale may contribute for the development of alternative mechanisms to reduce tax evasion [5]. Tax evasion and tax compliance are issues of interest to politicians for two main reasons: The negative consequences that such practices have on public revenues, and on tax system equity level [9]. It is also important to sustain that high levels of tax compliance have an important role in shaping perceptions of potential investors and, therefore, affecting competitiveness [3].

We used data regarding to Portugal and Spain from EVS 2008 to study the factors that explain tax morale level. In the process, a factor analysis is applied to identify and assess the significance of the different dimension of taxpayer's tax morale. This study presents the main determinants of tax morale present in empirical literature, but does not have the aim to be an exhaustive literature review on the subject. We contribute to the literature by investigating the factors that shape tax morale of Iberian Peninsula taxpayers. In our analysis, we concluded that non-economic factors like religiosity, trust, equity and political participation strongly contribute to maintain and increase taxpayer's intrinsic motivation to comply.

In the next section, we briefly review the literature on tax moral as it is strongly linked to tax evasion and the dimension of shadow economy. In Section III, we present the methodology to be followed. Section IV presents our empirical results which rely on a factor analysis. Finally, Section V concludes the paper.

II. BACKGROUND

Taxpayers exhibit a wide range of behavior towards their tax obligations, justified for several reasons, ranging from an economic point of view [10], [11] to behavioral and psychological motivations [12]. There are taxpayers that do not make any effort to avoid paying taxes. They always present a tax compliance behavior, regardless of the circumstances [13]. Their behavior does not respond to any changes in the parameters of fiscal policy like tax rates, fines or frequency of audits. There are taxpayers who obey to the economic and rational choice [10], [13]. There are also taxpayers who are greatly influenced by social norms, by others behavior or by the institutional conditions under which they must pay their taxes [13].

Literature cannot satisfactorily explain the puzzle of tax compliance using only traditional economic variables, such as probability of detection and fines. According to traditional economic models [10], [11], many taxpayers would rationally opt for non-compliance behavior. It is unlikely that cheaters will be caught and penalized [14]. But several researchers

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state that even when these circumstances exist, a high degree of compliance is observed [12], [8], [14]. Under these circumstances the justification of the high level of tax compliance observed in many countries, based on traditional economic models, would need the existence of a very high level of risk aversion on the part of taxpayers [15], [8]. For that reason, the study of this topic has received, in recent years, contributions from different academic disciplines, such as accounting, law, economics, sociology and psychology [3]. The integration of moral sentiments like shame and guilty seems to be the key to provide a satisfactory understanding about taxpayer's compliance behavior [25]. Later, stress that "adding moral and social dynamics to models of tax compliance is as yet a largely undeveloped area of research" (p. 852) [12]. In the 1990's studies show that the research question about tax compliance is "why compliance is so high" and not "why evasion exists" (p. 82) [14]. [13] "point out that complying or not is not only a function of opportunity, tax rates, and probability of detection, but also the function of an individual's willingness to comply or evade (p. 119).

Reference [16] identified fourteen determinants of tax evasion grouped into demographic, economic and behavioral determinants. Demographic determinants include: age, gender, education, and occupation status. Economic determinants include: Income level, income source, marginal tax rates, sanctions and probability of detection. Behavioral determinants include: fairness, complexity, authority initiated contacts, compliant peers and ethics or tax morale. Other researchers contribute to a systematic study of economic and non-economic variables influence on taxpayer behavior [6], [3].

Many researchers argue that among non-economic variables, tax morale has an important role in explaining the high degree of tax compliance [13], [17]-[19] and has a strong negative impact on the shadow economy [20]-[24] and tax evasion [19]. A reduction of tax morale reduces the moral costs of behaving illegally and increases the incentives to work in the underground economy [19].

Tax morale is an intrinsic willingness to pay taxes [26] and a civic duty which can be crucial to explain the level of acceptance of tax burden in a country [27]. Reference [28] embedded the concept of tax morale linking it to taxpayers' ethics, as "the norms of behavior governing citizens as taxpayers in their relationship with the government" [29]. Reference [22] established the concept as a set of moral principles or values that individuals have regarding the payment of their taxes.

Empirical studies evidence that the intrinsic motivation of each one to pay a tax, differs from country to country [26], [22] and differs over time (for Spain see [27]; for Australia see [28]). Between 1990 and 2001, the European countries with higher tax morale were Austria, Denmark, Northern Ireland and Switzerland. On the other hand, the countries with lower tax morale were Belgium, Holland, Finland. Empirical data show an increase of about 5.33% compared to baseline, with most of the countries with the lowest indicators recording a significant rise [30].

If tax morale level is not constant over time it seems important to discuss and understand the reasons underlying this change. The concept of tax morale can be better understood in the light of the many factors that have been identified to shape it. Literature provides evidence for a wide range of variables influencing tax morale. We grouped these factors into five categories: personal and demographic factors, economic factors, sociological and behavioral factors, psychological factors and political factors.

Personal and Demographic Factors: Age, Gender, Marital Status, Education, Labor Status

Empirical research provides evidence that older individuals (more than 30 years), women, married, individuals with higher level of education and full time job employed present a higher level of tax morale [22], [28]. The main reason supporting these conclusions stands on the greater social commitment and more risk aversion. However there are evidences of contrary effects.

Economic Factors: Fines, Probability of Audit, Income,

When the purpose is to analyze tax morale, the consideration of the deterrent factors is not so evident. Indeed, only when tax morale shows to be a good tax compliance indicator it seems adequate the inclusion of deterrence variables [31].

In countries where income tax rates are progressive, such as Portugal and Spain, taxpayers with higher incomes get a higher return for each unreported monetary unit, but they may face a lower marginal utility [30], [14]. On the other hand, taxpayers with lower incomes will have fewer constraints on tax evasion, but are in a less favorable position to take risks because of high marginal utility loss associated with the chance of being detected and penalized [16]. However, there is a trend in households with a less favorable financial condition to see the payment of tax as a strong financial constraint, which can lead to a decrease in tax compliance [21]. The combination of these two aspects, the economic consequences and the marginal utility associated with each unreported monetary unit makes it difficult to establish theoretically the influence of income level in the taxpayer's tax morale. It stays dependent on the level of risk aversion of each contributor and the progression of the income tax schedules [30].

Sociological and Behavioral Factors: Religiosity, Perception of Others Behavior

Citizen's behavior is influenced by moral constraints, which are not formally laid down. Many of these standards are highly influenced by religious motives [14]. Church as an institution induces moral constraints in a community and influences people's behavior [30]. In this context religiosity can be a restriction on engaging in tax evasion [4]. Results of [4] support such previous findings in that a high sense of religiosity leads to higher tax morale.

Individuals' behavior is not an isolated decision, their behavior is influenced by others. Taxpayers' behavior depends on the social behavior of other taxpayers, that is, in fact, taxpayers are willing to pay their taxes conditionally [31]. The

perception of a taxpayer about others behavior influences his tax morale level. The greater the perception by an individual that others follow tax evasion practices, the more he will tend to lower his level of tax morale [17].

Psychological Factors: Trust, Pride, Equity, Tax Evasion, Happiness

The level of taxpayers' satisfaction with the government can help maintain or even increase their level of tax morale [13]. In Russia, the level of tax morale decreased during the years of transition to market economy due to the perception of an increased level of corruption affecting the level of people's trust in the Parliament [32].

Taxpayers perceived unfairness lead to an incentive to act in disobedience to the tax law, as the psychological costs of non-compliance are reduced [13]. Taxpayer's perception of a decrease in the level of equity is accompanied by an increase in tax evasion. Taxpayers who feel treated unfairly by the tax system are more inclined to tax evasion [32]. Perceived unfair taxation leads to an increase in tax evasion. A taxation system that is more equitable both horizontally and vertically is likely to improve tax compliance [33]. This relationship may indicate that trust is an important value that influences the incentives of taxpayers to commit to obedience. But confidence can only be created and maintained with the government's commitment to act in accordance with people's needs and desires [34].

Happiness was analyzed in several countries [21]. It is concluded that, in Latin America, happiness has a significant positive effect on tax morale. In Asian countries happiness and individual satisfaction also have a strong impact on the level of taxpayers' tax morale [35].

National pride can be used as a proxy to evaluate the degree of the taxpayer's identification with the State and it influences individual's behavior in a group, organization and society [36]. A great identification with a country provides an incentive to behave more according to the rules and in this sense induces to a more compliant behavior. People with a high sense of national pride show a higher level of tax morale [14].

Political Factors: Political Participation

It is understood that a strong democratic attitude has a positive effect on tax morale [21]. In fact, higher political participation is the main justification supported by [22] for the level of tax morale in the U.S. and Switzerland compared to other European countries.

A government that undertakes the rules of direct democracy imposes restraints on its own power and thus sends a signal that taxpayers are seen as responsible people [43]. In fact, the more taxpayers participate in the process of formulation of political decisions through their voting rights and the "fiscal contract" is based on trust, the greater the level of tax morale is verified [21]. The relationship between taxpayers and tax authorities has an implicit underlying or psychological contract which involves not only strong emotional ties but also a loyal bond [26]. In this context, positive actions undertaken

by the government are understood as inducing positive attitudes and commitment by taxpayers to the tax system and taxes payment and, therefore, to tax compliance [37]. If the government acts with integrity, taxpayers will be more willing to comply with their tax obligations [37]. This reciprocity can be an important inducer of compliance. In this regard, [8] conducted a study in Switzerland which aimed to examine whether the relationship between tax authorities and taxpayers influenced the level of tax compliance and tax morale. Results concluded that in the cantons where citizens' participation rights are higher, the tax authorities have a more respectful and less suspicious outlook on taxpayers who report lower incomes.

III. METHODOLOGY

A. Instrument

Tax morale determinants are analyzed by using either survey data or experimental results. In line with empirical literature we use data from EVS carried out in 2008 to conduct this study.

The EVS is a survey performed in a group of European countries about human values and that gives a perspective of how those values change over the years. Fundamentally, it seeks to collect data about what Europeans think about family, work, religion, politics and society. The survey provides details of the ideas, beliefs, preferences, attitudes, values and opinions of citizens across Europe. This is a research program based on surveys, with an increasing number of countries participating over time. In 2008, the last survey, participated in 47 European countries, contains about 250 questions and takes about 40 minutes to respond. From 1981 to 2008, this survey was conducted four times in European countries and outside Europe, it repeats every four years. The fact that it is a survey designed to be applied in a wide range of countries, reduces the likelihood of respondents suspected the motivation and reduce the appearance of "framing effects" [30].

Survey data of this kind are open to several critics. The greater disadvantage is that it is not possible, by the researcher, to ensure an accurate response by respondents. This uncertainty is supported by several reasons. Whether it is because people do not remember the decisions taken at the time of filling out tax return, or because they choose not to respond true or even because the pool of respondents may not be representative. It should also not be neglected the sensitive nature of the tax compliance issue that, by itself, can create the incentive for non-participation. There is also the possibility of respondents consider the subject embarrassing and show reluctance to answer questions about it [38]. However, there are several advantages in using survey data of this kind for research purposes. Surveys have been used to study beliefs, opinions, attitudes, motivations and behaviors of individuals, to learn the status quo, or to discover the interrelationships among the variables of interest [16] and empirical literature shows currently their use [39], [19], [14] [3]. The great advantage of the methods of self-declaration is reflected in the possibility of collecting and study socio-economic variables,

demographic and behavioral factors. This is particularly interesting to study taxpayer behavior, because it is a multidisciplinary investigation. The survey allows the provision of detailed information about the dynamics underlying the (non)compliance [12]. Empirical research shows that if the objective of the study on tax fraud is to obtain such knowledge, then the investigation will be the best instrument to use [40]. It must be also referred that EVS question do not refer to actual behavior, individuals are not asked to reveal if they truly infringed social or legal norms [41].

B. Sample and Procedure

The EVS (2010) allows us to work with a representative set of individuals of Portugal and Spain. Samples of population with 18 years old or more were drawn using representative multi-stage samples or stratified random samples. The sampling design consists of a multi-stage, random selection of sampling points with the number of individual observations drawn from all administrative regional units, after stratification by region and by degree of urbanization. Surveys were conducted face to face with a standardized questionnaire in 2008. A theory group was responsible for the standardization of questionnaire among countries and between waves.

Table I shows a socio-demographic characterization of the Portuguese sample. This sample includes individuals aged between 18 and 98 years old with an average 51 years old. There are no significant differences between genders, 56.1% of respondents are women and 43.9% are male. There are individuals from all regions of Portugal, with emphasis for North (39.3%), Center (25.3%) and Lisbon (20.5%). Around 89.6% of respondents have up to (upper) secondary education. Around 33.00% of the respondents earn less than € 18,000 a year. However a significant percentage of the respondents (47.4%) didn't answer the question or didn't new how much was his year income. Regarding to employment status, 49.00% of the respondents are employed and 29.3% are retired or pensioned.

Table II describes socio-demographic characterization of the Spanish sample. The sample includes individuals aged between 18 and 98 years old with an average 48 years old. There are no significant differences between genders and there are individuals from all regions of Spain, with emphasis for Este (28.8%) and Sur (21.47%) regions. Around 35.7% of respondents have pre-primary education or none education. Around 34.00% of the respondents earn less than € 18,000 a year. However a significant percentage of the respondents (36.93%) did not answer the question or did not new how much was year income. Regarding to employment status, 44.27% of the respondents are employed and 19.6% are retired or pensioned.

TABLE I
 PORTUGUESE SAMPLE SOCIO-DEMOGRAPHIC CHARACTERIZATION

| Item | Frequency | % |
|---|----------------|----------------|
| Age | | |
| 18 – 29 | 152 | 13.2 |
| 30 – 49 | 411 | 35.7 |
| 50 – 65 | 268 | 23.3 |
| > 65 | 321 | 27.9 |
| No response | 0 | 0 |
| Total | 1,152 | 100.0 |
| Average: 51.16 | Min: 18 | Max: 98 |
| Gender | | |
| Male | 506 | 43.9 |
| Female | 646 | 56.1 |
| No response | 0 | 0 |
| Total | 1.152 | 100 |
| Residence | | |
| North | 453 | 39.3 |
| Algarve | 30 | 2.6 |
| Center | 292 | 25.3 |
| Lisbon | 236 | 20.5 |
| Alentejo | 141 | 12.2 |
| No response | 0 | 0 |
| Total | 1,152 | 100 |
| Education level | | |
| Pre-primary education or none | 106 | 9.2 |
| Primary education or first stage of basic education | 540 | 46.9 |
| Lower secondary or second stage of basic education | 191 | 16.6 |
| (Upper) secondary education | 195 | 16.9 |
| First stage of tertiary education | 106 | 9.2 |
| Second stage of tertiary education | 2 | 1.0 |
| No response | 2 | 0.20 |
| Total | 1,152 | 100 |
| Income/Year | | |
| Less than € 6,000 | 118 | 10.2 |
| € 6,000 to under € 12,000 | 169 | 14.7 |
| € 12,000 to under € 18,000 | 93 | 8.1 |
| € 18,000 to under € 36,000 | 98 | 8.5 |
| € 36,000 to under € 60,000 | 65 | 5.6 |
| € 60,000 to under € 120,000 | 48 | 4.2 |
| € 120,000 or more | 15 | 1.3 |
| No response | 546 | 47.4 |
| Total | 1,152 | 100 |
| Employment status | | |
| Employed | 565 | 49.0 |
| Self employed | 31 | 2.7 |
| Military Service | 1 | 0.1 |
| Retired/pensioned | 337 | 29.3 |
| Housewife | 65 | 5.6 |
| Student | 40 | 3.5 |
| Unemployed | 93 | 8.1 |
| Disabled | 10 | 0.9 |
| Other | 5 | 0.4 |
| No response | 5 | 0,4 |
| Total | 1,152 | 100 |

TABLE II
SPANISH SAMPLE SOCIO-DEMOGRAPHIC CHARACTERIZATION

| Item | Frequency | % |
|---|----------------|----------------|
| Age | | |
| 18 – 29 | 302 | 20.1 |
| 30 – 49 | 569 | 37.9 |
| 50 – 65 | 274 | 18.3 |
| > 65 | 352 | 23.5 |
| No response | 3 | 0.2 |
| Total | 1,500 | 100.0 |
| Average: 47.85 | Min: 18 | Max: 98 |
| Gender | | |
| Male | 658 | 42.8 |
| Female | 842 | 57.2 |
| No response | 0 | 0 |
| Total | 1,500 | 100 |
| Residence | | |
| Noroeste | 149 | 9.93 |
| Noreste | 140 | 9.33 |
| Comunidade de Madrid | 200 | 13.33 |
| Centro | 190 | 12.67 |
| Este | 432 | 28.8 |
| Sur | 322 | 21.47 |
| Canarias | 67 | 4.47 |
| Total | 1,500 | 100 |
| Education level | | |
| Pre-primary education or none education | 526 | 35.7 |
| Primary education or first stage of basic education | 220 | 14.67 |
| Lower secondary or second stage of basic education | 261 | 17.40 |
| (Upper) secondary education | 218 | 14.53 |
| First stage of tertiary education | 230 | 15.53 |
| Second stage of tertiary education | 30 | 2 |
| No response | 15 | 1 |
| Total | 1,500 | 100 |
| Income Year | | |
| Less than € 6,000 | 135 | 9 |
| € 6,000 to under € 12,000 | 191 | 12.73 |
| € 12,000 to under € 18,000 | 184 | 12.27 |
| € 18,000 to under € 36,000 | 281 | 18.73 |
| € 36,000 to under € 60,000 | 62 | 4.13 |
| € 60,000 to under € 120,000 | 81 | 5.4 |
| € 120,000 or more | 12 | 0.8 |
| No response | 554 | 36.93 |
| Total | 1,500 | 100 |
| Employment status | | |
| Employed | 664 | 44.27 |
| Self employed | 99 | 6.60 |
| Military Service | 0 | 0 |
| Retired/pensioned | 294 | 19.60 |
| Housewife | 252 | 16.80 |
| Student | 68 | 4.53 |
| Unemployed | 118 | 7.87 |
| Disabled | 3 | 0.20 |
| Other | 1 | 0.07 |
| No response | 1 | 0.07 |
| Total | 1,500 | 100 |

The socio-demographic characterization data sample does not show many differences between of both countries.

Portuguese individuals' average age and education level is higher than Spanish individuals.

C. Data Analysis

The objective of the data analysis was to assess the dimensionality of the tax morale among Iberian taxpayers. We began data analysis with an exploratory factor analysis. Sample adequacy was evaluated by Kaiser-Meyer-Olkin test. Factor analysis adequacy was calculated by performing Bartlett test. Secondly, we applied the analysis of variance (ANOVA) procedure, and the Tukey test to check the existence of differences among the means for socio-demographic characteristics on tax morale dimensions.

IV. RESULTS AND DISCUSSION

A. Factor Analysis Results

To perform factor analysis results we replaced missing value for the mean value of each response, except on socio-demographic characteristics.

TABLE III
PORTUGAL FACTOR ANALYSIS RESULTS

| FACTORS | F 1 | F 2 | F 3 | F 4 | Comm ¹ |
|--|---------|---------|---------|---------|-------------------|
| (Cronbach's alpha value) | (0.868) | (0.697) | (0.683) | (0.734) | |
| TPI – TRUST IN PUBLIC INSTITUTIONS | | | | | |
| - Education System | 0.702 | | | | 0.525 |
| - Police | 0.738 | | | | 0.548 |
| - Armed forces | 0.584 | | | | 0.413 |
| - Social Security System | 0.728 | | | | 0.639 |
| - Parliament | 0.593 | | | | 0.597 |
| - Health Care System | 0.677 | | | | 0.600 |
| - Civil Service | 0.650 | | | | 0.607 |
| - Justice System | 0.662 | | | | 0.618 |
| TGD – TRUST IN GOVERNMENT AND DEMOCRACY | | | | | |
| - Political Parties | | 0.670 | | | 0.613 |
| - Confidence in Government | | 0.784 | | | 0.706 |
| - Democracy | | 0.741 | | | 0.575 |
| - Government | | 0.703 | | | 0.519 |
| R - RELIGIOSITY | | | | | |
| - Importance of Religion | | | 0.788 | | 0.627 |
| - Church Attendance | | | 0.771 | | 0.608 |
| - Confidence in Church | | | 0.766 | | 0.698 |
| - Religious Orientation | | | 0.729 | | 0.540 |
| PP – POLITICAL PARTICIPATION | | | | | |
| - Importance of Politics | | | | 0.792 | 0.662 |
| - Political Matters | | | | 0.805 | 0.654 |
| - Political Interest | | | | 0.796 | 0.673 |
| Eigenvalues | 5.755 | 2.605 | 1.801 | 1.260 | |
| Percent of total variance | 30.290 | 13.709 | 9.478 | 6.633 | |
| Cumulative percent | 30.290 | 43.999 | 53.477 | 60.110 | |

Using the Kaiser-Meyer-Olkin test, sample adequacy for all variables was analyzed in both countries. A sample adequacy overall value of 0.871 was obtained for Portugal and 0.819 for Spain. These values reached the value considered acceptable in the literature for this type of analysis [42]. The principal component method, with a Varimax rotation was used to extract relevant factors. Only factor loadings greater or equal

to 0.50 are displayed. The results of the Bartlett test confirmed the appropriateness of the factor analysis procedure as used. All variables present a sample adequacy (MSA) greater than 0.68 for Portugal and greater than 0.669 for Spain. Based on the factor analysis procedure, a four-factor solution was extracted (Table I). This factor solution explained 60.553 percent of the total variance for Portugal and 59.782 for Spain. The four factors extracted based on this solution for Portugal are presented in Table III.

Table IV presents the four factors extracted based on this solution for Spain.

TABLE IV
 SPANISH FACTOR ANALYSIS RESULTS

| FACTORS (Cronbach's alpha value) | F 1 (0.778) | F 2 (0.783) | F 3 (0.788) | F 4 (0.619) | Comm ¹ |
|--|----------------|----------------|----------------|----------------|-------------------|
| TPI – TRUST IN PUBLIC INSTITUTIONS | | | | | |
| - Social Security System | 0.762 | | | | 0.597 |
| - Health care system | 0.753 | | | | 0.574 |
| - Justice system | 0.675 | | | | 0.476 |
| - Civil service | 0.616 | | | | 0.423 |
| - Education | 0.591 | | | | 0.375 |
| - Parliament | 0.510 | | | | 0.480 |
| - Police | 0.499 | | | | 0.343 |
| R - RELIGIOSITY | | | | | |
| - Importance of Religion | | 0.846 | | | 0.724 |
| - Confidence in Church | | 0.840 | | | 0.749 |
| - Church attendance | | 0.812 | | | 0.664 |
| - Religious Orientation | | 0.809 | | | 0.671 |
| PP - POLITICAL PARTICIPATION | | | | | |
| - Political Interest | | | 0.877 | | 0.781 |
| - Importance of Politics | | | 0.824 | | 0.687 |
| - Political Matters | | | 0.786 | | 0.627 |
| TGD – TRUST IN GOVERNMENT AND DEMOCRACY | | | | | |
| - Government | | | 0.840 | 0.630 | |
| - Democracy | | | 0.791 | 0.649 | |
| - Confidence in Government | | | 0.671 | 0.714 | |
| Eigenvalues | 4.046 | 2.837 | 1.982 | 1.297 | |
| Percent of total variance | 23.803 | 16.689 | 11.659 | 7.632 | |
| Cumulative percent | 23.803 | 40.492 | 52.121 | 59.782 | |

Factor One: Trust in Public Institutions

When the tax system is perceived by taxpayers as equitable it is more likely to have high tax compliance and tax morale levels. This factor included individual's assessment of a set public services. This factor includes the following variables:

1. Level of confidence an individual has in the education system;
2. Level of confidence an individual has in the police;
3. Level of confidence an individual has in the armed forces;
4. Level of confidence an individual has in the social security system;
5. Level of confidence an individual has in the civil service;
6. Level of confidence an individual has in the health care system;
7. Level of confidence an individual has in the justice system.

For Spain, the indicator level of confidence in the armed forces presented a high loading in two factors and in was deleted for the Spanish solution.

Factor Two: Trust in Government and Democracy

The degree of confidence of citizens in institutions was measured based on a set of questions related to trust, one question related to individual's perception of democracy evolution in last years and other question related to individual's perception of how the country is being governed and if taxes are being spent properly. It is expected that a high level of confidence is reflected in a higher level of tax morale. Similarly, individuals who present a higher satisfaction with democracy development and how the country is being governed present a higher level of tax morale. This factor includes the following variables:

1. Level of confidence an individual has in political parties;
2. Level of confidence an individual has in the government;
3. Level of satisfaction an individual has with how democracy developed Portugal over the last years;
4. Individuals' perception of how Portugal is being governed.

For Spain the indicator confidence an individual has in political parties presented a high loading in two factors and in was deleted for the Spanish solution.

Factor Three: Religiosity

Religiosity is being used in literature as a proxy to analyze the impact of values imposed by non-governmental organizations or the impact of values that promote compliance and punish non-compliance [20]. This factor includes the following variables:

- Level of importance an individual states that religion has on his life;
- Frequency an individual goes attend religious services, without count with weddings, funerals and christenings;
- Level of confidence an individual has in church;
- Individual's perception of being a religious person, not a religious person or a convicted atheist.

Factor Four: Political Participation

A higher political participation is linked to higher levels of tax morale. This factor included the following variables:

- Importance of politic in a citizen life;
- Frequency of politic discussion with friends;
- Individual's interest on politics;

According to exploratory factor analysis we can concluded on the similarly of tax morale dimensions for both countries.

For Portugal, the analysis of variance (ANOVA), and the Tukey's HSD test with p set at 0.05, showed significant differences across religiosity and political participation dimensions for all socio-demographic characteristics, namely age, marital status, education and income level. For income level, we also found significant differences on the trust in public institutions, trust in government and democracy and political participation dimensions. It was not possible to apply analysis of variance procedure on gender and employment status variables.

For Spain, ANOVA, and the Tukey's HSD test with p set at 0.05, showed significant differences across religiosity for all socio-demographic characteristics, namely age, occupation, education and income level. For age, we also found significant differences on trust in public institutions dimension. For education level, we also found significant differences on trust in government and democracy dimension. It was not possible to apply analysis of variance procedure on gender and employment status variables.

We concluded that there are no remarkable differences between socio-characteristics and tax morale dimension in taxpayers of both countries.

V.CONCLUSION

We conducted a review over recent empirical literature about taxpayers behavior and observed that compliance can't be truly understood without the consideration of behavioral and psychological variables. Moreover, in last decade, empirical research has given very much attention to tax morale, as a key variable to provide an explanation about compliance level, to support tax evasion levels verified and underground economy levels.

The results present in this paper are in line with several researchers that have shown evidences that tax morale is influenced by a set of factors including personal and demographic, behavioral, physiological and political factors.

The results presented in this paper show that individual motivation to comply is mainly explained by several factors that are not dissuasion factors. Improvement in quality of public services, a better relationship between taxpayers and public authorities, can motive taxpayers to comply.

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